SalsaPartyWalk.com

CIS 491 – Senior Project

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Phase I – Project Initiation

1. Project Declaration

1.1 Abstract

The focus of our project is to enhance existing methods of dance instruction over the Internet. This will be done by incorporating the instruction techniques used by actual dance instructors and merge them with video streaming technology to provide a professional and user friendly web page. DanceOnline.Com will strive to achieve up-most customer satisfaction in every possible way.

Dance websites were developed because traditional means of instruction, for example dance classes, videos, and books do not cater to the individual needs of customers. On the other hand, these web pages do allow people to learn at their own time, location and moreover provide resources- all of which were not available with the traditional dance methods.

DanceOnline.Com will be similar to existing dance websites in the sense that a person can enter with an option to preview the site and its features or become a member free of charge. Once a member, the customer can browse through our selection of videos and choose which ones they would like to download. In addition to viewing the videos, the user will also be able to read detailed explanations on each move.

Videos are classified by their genre and level of difficulty. The main style of focus will be Latin dances. This will include Salsa, Merengue, and Bachata. The three levels of difficulties to choose from are beginner, intermediate and advanced; the user can choose the type that is most convenient for them. The “Beginners” section focuses on basic moves that need to be learned before learning more advanced steps. It will mainly

deal with timing of the moves and basic positioning (e.g. arms, hands, hip positions), as well as very simple turns. The “Intermediate” section concentrates on teaching more intricate steps. There is more turns and footwork involved for both men and women. In the last section, “Advanced”, one can learn how to apply previous learned moves and combine them into a structured combination.

Apart from videos to download, the web site has many features that provide the customer with additional resources pertaining to dance. Such features include highlights of nearby clubs and events going on in the area. Clients will be able to purchase a DanceOnline.Com DVD available online for their convenience. The DVD will feature supplementary moves as well as combinations not available on the website. There will also be links to related dance, music, apparel and informational websites to allow members to see what else is available to them apart from DanceOnline.Com.

With the ever-growing technology today we are positive that DanceOnline.Com will surely be a successful project. It will provide more customer convenience, a variety of dances, quality videos, and still remain cost effective. People from all different types of background will be able to learn how to dance at their own convenience. With so much being provided and so little effort required, DanceOnline.Com will prove to be an effective and popular dance website.

1.2 Group Formation

Initially, the DanceOnline.Com team consisted of four members. These members were: Alexis Morel, Fritz Alcindor, Joe Menio, and Geoconda Idrovo. This formation was done in the previous semester when the idea for DanceOnline.Com was first presented. At the beginning of the semester the team, in conjunction with Rashaun Booker (project manager), reviewed applications and decided to hire another team member that would contribute to the team effectively. An additional member was needed in order for the group to meet both deadlines and requirements for completion of the project at hand.

2. Project Introduction

2.1 Problem Statement

Dance websites have become more popular amongst people who want to learn how to dance. Existing Dance Websites provide people with the convenience of learning how to dance on their own time and without having to physically leave their home. We however, plan to improve website instruction by enhancing features that have been overlooked by existing websites. Keeping customer satisfaction in mind, these features include: video quality, download time, security and most importantly user-friendliness.

We don’t want our customers to wait a long time for a large video file to download. To avoid this from happening we will “vectorize” the videos, thereby reducing the file size. This process entails taking the video images and converting them into cartoon-like figures. Although the result will be a cartoon, none of the actual human movements will be lost; details of clothing movement and hip motions will be clearly depicted in the videos.

Since customer satisfaction is the area of highest interest in our system, we want to make the site easy to use. This will allow people who may not be so familiar with web pages to navigate through our site with ease and guidance. Human factors are going to be taken into account when designing the page layouts. Specifically, the use and location of text, colors, links, and pictures will be carefully thought out in order to maximize usability.

All of the above mentioned areas of focus would come together to create a web site that will give people an opportunity to learn how to dance over the web with the aid of highly skilled dancers and helpful resources. This goal will be reached with both little cost and effort from a customer standpoint.

2.2 Information Gathering

Although DanceOnline.Com has many new features, every system has had some history to it. There have been other dance websites done in the past; now we will discuss examples of these sites.

Bustamove.com is a website that provides dance instruction over the Internet. It does this through videos, in which real dancers are replaced by cartoons. This is primarily done to reduce the size of the web page. Aside from selling videos this web page also has a section in which products related to dancing could be sold either by the website or by other customers that want to advertise their products on the site. In addition to this, the web site allows members to meet people from all over the country, by publicly displaying their contact information. It also enables interaction amongst the members by offering discussion rooms in which members could post and respond to messages.

Finally, the web site allows members to search for dancing events around their local area and all over the country.

There are many advantages to bustamove.com. First, the quality of the videos is very good, considering the cartoons reflect the exact movements of real people without using too much memory. Secondly, the website allows anyone who visits the page to preview sample moves free of charge. This feature was included so that one can view the video formats and to attract potential customers. Still another option users have is a choice of dance instructions. The customers can either pick: “in-depth instruction”, “class structures”, or “move by move”. In-depth instruction provides the customers with a thorough instruction on styling while dancing. Class structures teach six beginner moves, hand placement, and how to put the moves together. Move by move instruction allows the customers to choose only the moves they are interested in learning. Overall this website gives the users the option of choosing a method of instruction that best suites their preferences or needs.

Although bustamove.com has many advantages, it also has its disadvantages. For example, the text used in the web page is not professional. When a customer registers and receives a login name the message display on the screen is “You are now a bustamove member (which is, let's face it, pretty cool)”. The wording is aimed for teenagers and not for all users. Adults may not relate to some comments and might be discouraged to continue with their membership. There are also problems logging out of the system. There is no button that allows you to log out, or switch users; therefore the only way to do so is by closing the window and reopening it again. This can cause security and privacy issues for the customers.

Another disadvantage related to privacy is the fact that the web page keeps a directory of its members' demographical and geographical characteristics. This information is made available to all members through a search engine within the web page. Although this information is voluntarily given by the users and made public with permission, it can cause problems in the future when members receive "disturbing or non-pleasant" notes from other members. It could result in the cancellation of memberships and therefore loss of business. The shopping options can also create problems since products can be sold not only by the owners of the web site, but also by other members. People who buy the products that are advertised on the web page, might hold the website owners responsible for any looses or mishaps they might have with merchandise sold by individual members. One last disadvantage is the method of payments available. If customers want to buy a video, they first need to purchase credits and then exchange those credits for the instructions they want. It is a tedious task that could be eliminated by allowing customers to pay with cash or credit card instead of credits. Also if customers no longer wish to purchase instructional videos they can not exchange their left over credits for money, so they loose their extra points. The credits in this case only benefit the owners of the web site and not the consumers.

Bustamove.com is a good model to follow as far as the technical requirements are concerned. The videos are well developed and reflect accurately the movements and steps of each dance. There are many options on instructional methods offered to the customers; therefore clients can choose the options that best reflect their needs. On the other hand, this web page lacks communication, security and privacy. Therefore to have a well-

developed project we need to follow the technical skills used in this web site and improve on the organization, context, security and privacy aspects of this web page.

The second web site we considered is DanceTutor.com, which is a web site that uses full motion (30 frames per second) dance instruction video as its main medium for teaching. These videos are very smooth and use real people instead of animation. This gives the student the effect that he or she is watching real people in a real class, which heightens the learning curve. The site also uses still photos and text coincides with the instructional video. These documents are step-by-step instruction that the user is supposed to read as he or she is watching the video. The website does offer a very helpful FAQ section and also gives the user information on streaming video. This is very good cause it makes the use of the site much easier. This also lowers the amount of e-mails and calls the system admin will receive. Moreover, it gives the user a more secure feeling which will make his purchasing decision much easier. The FAQ also gives information on the user CPU and what type of processor will be needed.

The web page lay is very poor and unprofessional. I feel this takes away from the content that this web site provides. When the site is first loaded there is a menu bar of sort. This menu bar is very unappealing and confusing, it gives the user too much information. Then the user must scroll down this brings up the member login window and the new user window. There is also an example of the type of videos that are available for down load. As the user scrolls down more, the site displays the type of lessons that are available for purchase and also gives prices. This main screen has too much information presented and therefore gives the user “information overload”. This feeling of confusion could cause customers to go to other sites.

The website offers eight different styles of dancing. These eight styles are**,** Swing 1 (Beginning/Intermediate Jitterbug), Swing 2 (Intermediate/Advanced Jitterbug), Argentine Tango 1 & 2, Lindy Hop 1 & 2 and West Coast Swing 1 and Balboa. The site also claims that in the future they will have instructional information on the following styles of dance: Argentine Tango 4 (Nov. 15, 2002), Lindy Hop 3 (Late November) Salsa 2 (Late November), Waltz (December), Quick Step (Winter), Instruction for Weddings (Winter), Polka (Winter), and Hustle (Winter).

DanceTutor.com is run like any other type of e-commerce site that sells information. The user can look around and get a feel for what the web page has to offer. There are "sneak peek" pages for each style of dance. These sneak pages have a small video with a lower frame rate. It also includes some still photos with a small amount of instructional text. This is very helpful because, it allows the customer to get and idea of what he or she is paying for and the quality of the content. The customer has three different payment options that they can chose from. These options are by major credit card, Pay Pal, or by check or money order. This is very good from a flexibility standpoint because it allows customers who may not have a credit card to still purchase there product; this does not limit there customer base to just credit card holders. DanceTutor.com overall is a good example of the instructional dance web sites that are out on the World Wide Web. This site with some cosmetic work can be a great website. The use of high frame rate video is a good edge on the rest of the market.

Salsadancesite.com is the last dance web site and it focuses on getting the users resources specifically related to dancing. As opposed to other websites that concentrate on instructing over the web, this site's objective is to inform people about what is

available to them (e.g. books, sites, music). The website is broken down into several areas of focus: Dance Classes, Dance Videos, Music, Bands, Chat Room, Books and their Mall. All of these links are available for specific purposes.

In the "Dance Classes" area, the site provides a list of dance classes in the area as well as their hours of operation and their fees. The user can take down the contact information if they would like to find out more about the class. Under "Dance Videos", the user can choose from a selection of VHS tapes or online videos that are available through the site. This is for those people who are interested in an alternative to attending an actual class. The "Music" link has a collection of albums from famous Latin artists for the user to purchase. "The Mall" area of the page is strictly for item purchasing and selling. This is actually an advantage to the site because it gives people an opportunity to network with other people. If a person wants to find out information about a musician or a band, they would simply click "Bands" and a list of links to pages with information on them would be found. In order to interact with people from different parts of the world, the user can utilize the site's chat room. Here people from all over the world log in to discuss dance. Finally, salsadancesite.com provides a library of books that users can choose from if they would like to learn more on a particular dance or dance topic. All of these resources make the website very informational and useful for customers.

While very informative, Salsadancesite.com has its disadvantages. An important aspect of the site that seems to have been overlooked is the navigation. The home page has buttons that directly link you to another area but if you want to view the downloadable video clips, it is difficult to find. There are just too many different sections of the page for one to know where exactly they need to go. Although the web page does

need sponsors to help support the site, there are too many advertisements throughout the web page. This can sometimes make it difficult for someone to focus on what they are looking for. In web page designing, the layout of the page is important so that users can navigate through the site with ease and accuracy.

In general the concept of this website is unique. It did not focus too much on teaching people how to dance over the Internet; rather it concentrated on providing information on dance. This is an advantage for people who simply want to find out information on dance. Conversely, the site would not be so useful for people who just want to learn new moves. A site that would combine both video clips and informational resources would be the ideal website for any type of user.

All of the websites that we considered in our project served as a good reference to develop a plan for the system's requirements. In order for one to successfully carry out a new project, there has to be a starting point. Our starting point was taking into account what has already been done.

2.3 Methodology

Software development life cycle methodologies provide structured approaches for managing information systems. Methodologies serve as mechanisms to assure that systems under development are delivered quality products that are on time, within budget, and meet or exceed user requirements/expectations. Many methodology models like: Water Fall, Spiral, Prototype, Win-Win Spiral, iteration…. are used by systems analysts to develop or enhance systems. Additionally, the methodology model use affects project outcomes and completion, and is directly related to the project nature. Consequently, our project uses the Win-win spiral, a modification of the Spiral model as shown in picture 1.0 below. It offers better alternatives for risk managements (cost analysis, resources, constraints), process driven, and gathering user feedbacks and evaluations that are essential keys to our project. The Win Win Spiral Model uses Theory W (win-win) to develop software and system requirements, and architectural solutions, as win conditions negotiated among a project's stakeholders (user, customer, developer, maintainer, interface, *etc.*) as shown in Fig 3.0 below. The Win-Win spiral is ideal for multimedia applications such ours, and consists of the following stages:

1. Identify next level stakeholders.
2. Identify stakeholders win conditions
3. a) Reconcile Win Conditions
   b) Establish next level objectives, constraints, and alternatives.
4. Evaluate product and process alternatives. Resolve Risks.
5. Define next level of product and process, including partitions.
6. Validate product and process definitions
7. Review and commit.

Picture 1.0: Win-win Spiral Model

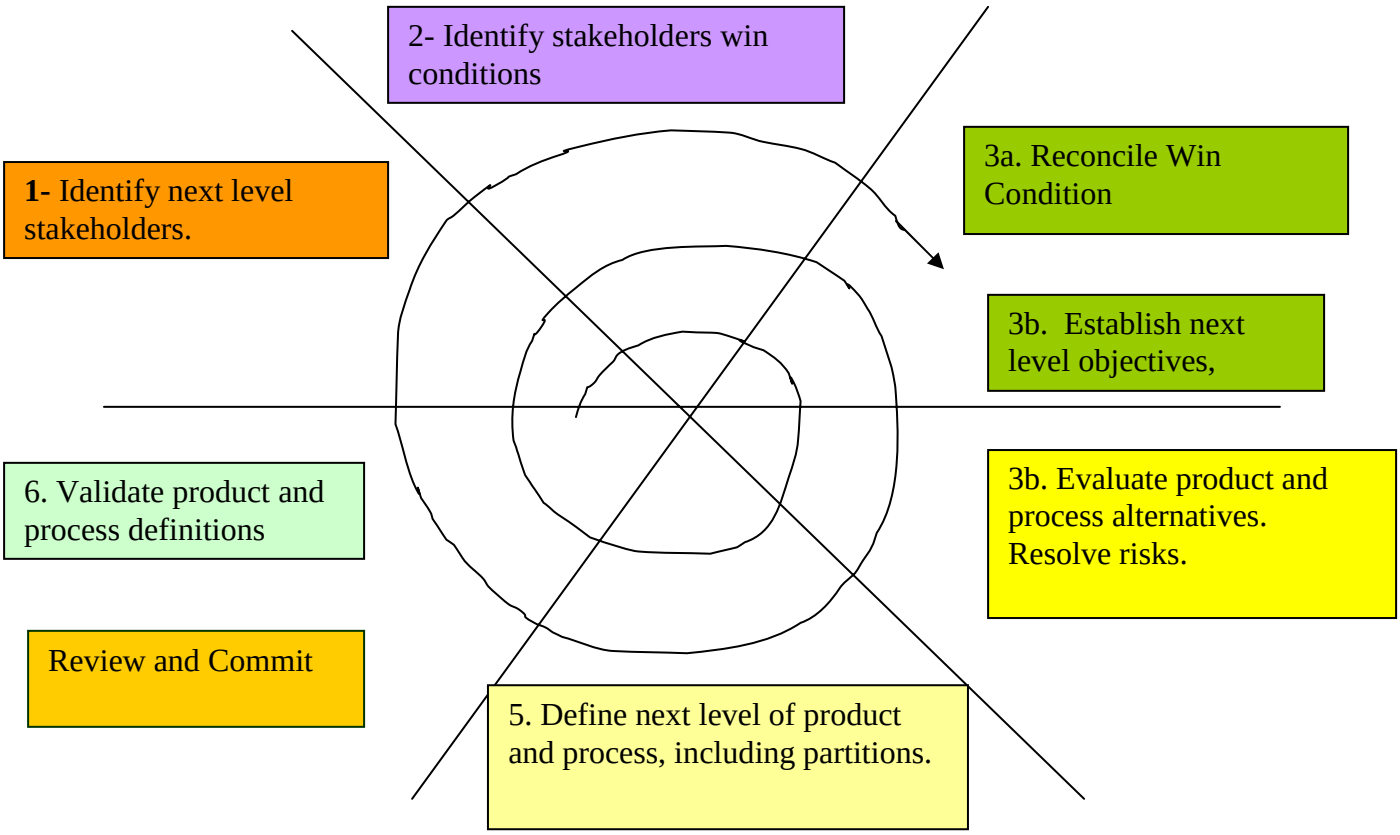
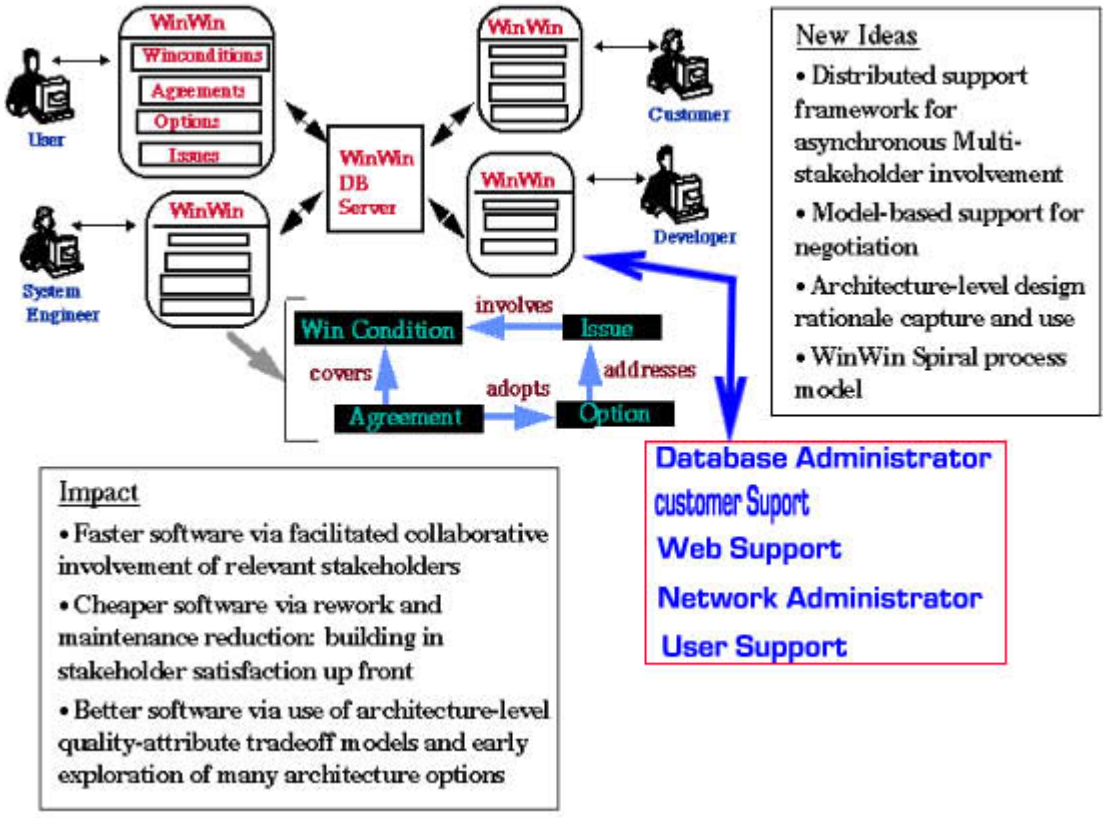


Fig 3.0 WinWin: Process Model and Support for **Danceonline.com**



Methodologies Evaluation Matrix

Our methodology selection is based on the model that best fits our project-defined criteria and requirements. During our project development life cycle we want to control our schedule, gather customer evaluations that analyze results of the engineering of each step and offer feedback to the developer. We also want to make it possible to modify processes easily upon change in requirements during any development stage, control risks, and manage time more efficiently using rapid prototyping. Consequently, table 2.0 below shows a quantitative analysis among some software development models, and demonstrates as well why the Win-Win spiral model is the best suitable for this project.

Table 2.0. Methodology evaluation Matrix
LEGEND: X= HAS THIS CRITERIA

		Water Fall	Incremental Model	Spiral	Win-Win Spiral	Prototype
Criteria	**Score**					
Control Schedule	10	X				
Customer Evaluation (Feedbacks)	15		X	X	X	X
Requirements Changes Flexibilities (changes)	15			X	X	X
Risk Assessment	30		X	X	X	
Engineering	10		X	X	X	X
Rapid Development	10		X	X	X	X
Process Concurrency in Design	10		X	X	X	X
Identify process or sub process ‘s key stakeholders	10				X	
Total Point	**110**	**10**	**75**	**90**	**100**	**60**

Phase II – Project Planning

1 Project Scheduling

2 Roles of the Team

Rashaun Booker: Rashaun is the project manager of the SalsaPartyWalk.com project. Rashaun played many roles throughout this project aside from being the team leader. Rashaun assisted Alexis and Geoconda with the organization and creation of the proper documentation. This entailed organizing all of the information that needed to be included. Rashaun worked heavily on the actual design and creation of the website. He was responsible for making the website's Flash version. In addition, Rashaun was a featured dancer in the videos that appear on the site. Rashaun worked with Alexis to record and vectorize the video images. He also worked on the Corba documentation.

Joe Menio: Joe worked on the Data Flow Diagrams and the Structured Chart in the documentation. Joe was mainly responsible for designing and implementing a log in and shopping cart for the website. His coded a log in process using ASP that would validate members and non-members of the website. The shopping cart allowed users to add in items for purchase. Apart from this, Joe created a registration page for users who want to become members of the website. Joe also helped with the role-plays in the documentation. In addition Joe worked with Rashaun to bring together the components of the website.

Alexis Morel: Alexis worked closely with Geoconda to create a well-structured and extensive report that would constitute for the project documentation. The documentation included a series of diagrams, charts and models. These include Use Case Diagrams, Static Object Models, Entity Relationship Models, Gant and Pert Charts to name a few. In addition Alexis helped create and carry out interviews and questionnaires during the requirements gathering phase of the project. Alexis worked with Rashaun to

record the videos as well as crop each video into individual clips. Alexis worked with Geoconda to add content to the website.

Fritz Alcindor: Fritz was responsible for the HTML version of the website. Fritz had to take the Flash version (original version) of the site and code in HTML. Fritz was also responsible for both the Decision Trees and Decision Tables for the documentation. He also helped with the role-plays in the documentation. Fritz worked with Rashaun to ensure that the Flash and HTML version of the website were virtually identical.

Geoconda Idrovo: Geoconda was responsible for the documentation end of the project. This involved working closely with Alexis to write up reports and create diagrams. Geoconda also helped vectorize the video clips that appear on the website. Geoconda helped record the dancers for the video. She was the main person for the statistical analysis part of the documentation. In addition she worked with Alexis to complete and review most of the documentation. Geoconda was also the main person for the cost benefit analysis as well as the questionnaires given to subjects for the testing of the website. Geoconda worked closely with Alexis on the bulk of the documentation.

Mahek Soni: Mahek's main responsibility was to work on the website's message board. He was responsible for creating a message board in which users can interact with each other and the website dancers. Mahek also helped vectorize the video clips. He also helped with the role-plays in the documentation.

3 **Work Break Down Structure**

Work Breakdown Structure (WBS)	Start Time	End Time	Allocated Person(s)
Project Initiation	1/29/03	1/31/03	
Project Abstract	1/29/03	1/31/03	Alex and Geoconda
Group Formation	1/29/03	1/31/03	Group
Problem Statement	1/29/03	1/31/03	Alex and Geoconda
Information gathering	1/29/03	1/31/03	Alex and Geoconda
Methodology	1/29/03	1/31/03	Alex, Geoconda, Fritz
Project Planning	2/5/03	3/1/03	
Milestones & Responsibilities	2/5/03	3/1/03	Alex, Geoconda, Rashaun
Features List	2/5/03	3/1/03	Alex, Geoconda, Rashaun
Feasibility Study	2/5/03	3/1/03	Geoconda
Who's Coming to the Site	2/5/03	3/1/03	Group
Distributing Client Survey	2/5/03	3/1/03	Alex and Geoconda
Determining Primary Objectives	2/5/03	3/1/03	Alex, Geoconda, Rashaun
Establishing Measurable Goals	2/5/03	3/1/03	Alex, Geoconda, Rashaun
Project Scheduling	2/5/03	3/1/03	Alex, Geoconda, Rashaun
Assigning Hours	2/5/03	3/1/03	Alex, Geoconda, Rashaun
Usability Test Plan	2/5/03	3/1/03	Rashaun
Quality Assurance Plan	2/5/03	3/1/03	Rashaun
Creative and Technical Brief	2/5/03	3/1/03	Rashaun & Alex
Outlining Strategy and Approach	2/5/03	3/1/03	Rashaun
Setting Up Project Site	2/5/03	3/1/03	Rashaun
Risk Management	2/5/03	3/1/03	Alex
System Analysis			
Business Models	3/2/03	3/9/03	Alex and Geoconda
Stakeholders Identification	3/2/03	3/9/03	Alex and Geoconda
Gathering Requirements	3/2/03	3/9/03	Alex and Geoconda
Documenting Requirements	3/2/03	3/9/03	Alex and Geoconda
As-Is DFD's	3/4/03	3/5/03	Joe
As-Is Decision Trees & Tables	3/4/03	3/5/03	Fritz
As-Is Structured English	3/4/03	3/5/03	Joe
As-Is Data Dictionary	3/4/03	3/5/03	Joe
Outlining Content	3/5/03	3/20/03	Alex and Geoconda
Creating Content Delivery Plan	3/5/03	3/20/03	Rashaun and Fritz
Building a Site Map	3/5/03	3/20/03	Alex, Geoconda, Rashaun
Setting Naming Conventions	3/5/03	3/20/03	Alex, Geoconda, Rashaun
Addressing Functional Areas	3/5/03	3/20/03	Mahek, Joe
Creating Screen Schematics	3/5/03	3/20/03	Rashaun
Determining Navigation	3/5/03	3/20/03	Alex, Geoconda, Rashaun
Outlining Content & Functionality	3/5/03	3/20/03	Alex, Geoconda, Rashaun

User Scenarios	3/5/03	3/20/03	Alex
Determining User Paths	3/5/03	3/20/03	Rashaun
Testing with Users	3/5/03	3/20/03	Geoconda and Rashaun
Reviewing User & Technical Goals	3/21/03	3/22/03	Geoconda and Rashaun
Conceptual Brainstorming	3/21/03	3/22/03	Group
Developing Initial Comps	3/21/03	3/22/03	Group
Creating Graphics Video etc.	3/21/03	3/22/03	Alex and Geoconda
Creating Style Guides etc.	3/21/03	3/22/03	Rashaun
Prototyping	3/21/03	3/22/03	Rashaun, Fritz, Joe, Mahek
Testing and Verification	3/21/03	3/22/03	Group
Testing Usability	3/21/03	3/22/03	Group
System Design			
To-Be DFD's	3/20/03	4/4/03	Group
To-Be Decision Trees & Tables	3/20/03	4/4/03	Fritz
To-Be Structured English	3/20/03	4/4/03	Fritz
To-Be Data Dictionary	3/20/03	4/4/03	Joe
To-Be Structured Chart	3/20/03	4/4/03	Joe
Data Driven Design	3/20/03	4/4/03	Alex and Geoconda
Object Oriented Design	3/20/03	4/4/03	Alex and Geoconda
Outside-In Driven Design	4/5/03	4/5/03	Alex and Geoconda
Architectural Design	4/5/03	4/5/03	Alex and Geoconda
Corba	4/5/03	4/5/03	Rashaun
Software Testing			
Functional Test	4/17/03	4/29/03	Alex and Geoconda
Performance Test	4/17/03	4/29/03	Alex and Geoconda
Acceptance Test	4/17/03	4/29/03	Alex and Geoconda
Implementation Test	4/17/03	4/29/03	Alex and Geoconda

Joe's WBS

Name Of Task	**Start Date**	**End Date**
1) Global.aspx	Feb 3rd 2003	Feb3rd 2003
2) Assignment Data Base	Feb 3rd 2003	Feb 5th 2003
3) Index.aspx(Log In)	Feb 9th 2003	Feb 16th 2003
4) Productlist.aspx	Feb 19th 2003	Feb 28th 2003
5) Addcart.aspx	March 1st 2003	March 8th 2003
6) Removeitem.aspx	March 16th 2003	March 25th 2003
7) Logo Design	March 17th 2003	March 17th 2003
8) Checkout.aspx	April 1st 2003	April 2nd 2003

9) Logout.aspx	April 5th 2003	April 21st 2003
10) Showcart.aspx	April 7th 2003	April 15th 2003
11) Register.aspx	April 4thth 2003	April 17th 2003
12) Showproduct.aspx	April 8th 2003	April 19th 2003
13) DVD Graphic	April 9th 2003	April 9th 2003

Mahek's WBS

Name Of Task	**Start Date**	**End Date**
1) Planning /Designing	Feb 28th	March 12th
2) Prototyping (Interface)	March 1st	March 3rd
3) Index.html	March 6th	March 7th
4) Date base designing	March 18th	March 19th
5) Navigation	March 21st	March 22nd 2003
6) Redesigning Interface using Flash	April 1st	April 4th
7) Re-designing Database	April 5th	April 6th
8) Salsa. Asp	April 5th	April 11th
9) Merengue. Asp	April 9th	April 10th
10) Bachata. Asp	April 11th	April 12th
11) Executable asp page1	April 12th	April14th
12) Executable asp page2	April 13th	April14th
13) Executable asp page3	April 15th	April 15th
14) Testing pages	April 15th	April 15th
16) Registration of Asp	April 16th	April 16th
17) Testing Forum	April 16th	April17th
18) Reply1.Asp	April 20th	April 22nd
19) Reply2. Asp	April 20th	April 20th
20) Reply3. Asp	April 21st	April 22nd
21) Loading forum	April 23rd	April23rd
22) Testing Forum on ASP server	April 25th	April 25th
23) Vectorzing Bachata videos	April 26th	April 26th
24) Maintaining & Testing	April 27th	April 27th

Fritz's WBS

Name Of Task	**Start Date**	**End Date**
1) Work on Site HTML Template	2/5/2003	2/8/2003

2) HTML Page Pre-Design / System Role Play.	3/15/2003	3/22/2003
3) Contact Page	3/20/2003	3/20/2003
4) Decision trees/ Tables / Structured English	3/22/2003	3/24/2003
5) HTML Home Page Site Links	3/26/2003	3/29/2003
6) Salsa Pages Creations	3/27/2003	4/3/2003
7) Final HTML Site Customizations	4/6/2003	4/7/2003

Rashaun's WBS

Name Of Task	**Start Date**	**End Date**
Layout 1	2/1/03	2/1/03
Layout 2	2/4/03	2/4/03
Prototype 1	2/9/03	2/12/03
Logo Creation	2/19/03	2/19/03
Adding Menu Buttons	2/25/03	2/25/03
Deciding colors, fonts, sizes	2/28/03	2/28/03
Creating Style Sheets	3/2/03	3/4/03
Creating Background Image	3/4/03	3/4/03
Creating Bottom Homepage Teasers	3/5/03	3/5/03
HTML Prototype 1	3/7/03	3/7/03
HTML Prototype 2	3/15/03	3/15/03
HTML Prototype Finalized	3/19/03	3/19/03
HTML Template Created	3/20/03	3/20/03
Sounds Added	3/22/03	3/22/03
JavaScript added for slight Interaction	3/23/03	3/23/03
Flash Pages Created	3/25/03	3/25/03
Layout of Pages, Schematics	3/27/03	3/27/03
XML DTD created	4/2/03	4/2/03
Highlights XML file & CSS	4/6/03	4/6/03
Forms for Login and Quick Links Created	4/10/03	4/10/03
Created Flash Contact Us Pages	4/12/03	4/12/03
Filmed Video Clips	4/20/03	4/20/03
Filmed Routines for DVD	4/26/03	4/26/03
Vectorized Videos	4/27/03	4/2703
Populated Pages	4/30/03	4/30/03
Created Teasers	5/2/03	5/2/03
Incorporated HTML Bio Picture	5/4/03	5/4/03

4 Milestones and Responsibilities

Begin Phase (date)	End Phase (date)	Phase Implemented & Allocated Resources	Description of Phase
1/29/03	1/31/03	**Phase I** **Project Initiation**	Abstract, Group Formation, Problem Statement, Information Gathering, Methodology
2/5/03	3/1/03	**Phase II** **Project Planning**	Milestones, Feasibility Study, Features List, Project Scheduling Risk Management, etc.
3/2/03	3/9/03	**Phase III -A** **Requirements Engineering**	**Analysis I** Business models, Stakeholders, Gathering Requirements, Documenting and modeling
3/5/03	3/20/03	**Phase III - B** **Information Architecture**	**Analysis II** Content, Site View, Screen View, User View
3/21/03	3/22/03	**Phase III – C** **First Prototype/Approaching Visual Design**	**Analysis III** Reviewing user tech goals, Conceptual Brainstorming, Prototyping
3/20/03	4/4/03	**Phase IV - A** **Architectural Design**	System Structuring, Control Models, Modular Decompositions, Database Design, user interface Design
4/5/03	4/5/03	**Phase IV - B** **Second Prototype**	Readdressing Scope, Budget, & Tech Requirements, Optimizing graphics, Addressing Scripting
4/17/03	4/22/03	**Phase V** **Final Documentation**	Full project Documentation, Implementation plan
4/17/03	4/29/03	**Phase VI** **Final Software Product**	Final Software Product
4/18/03	4/29/03	**Phase VII** **Software Testing**	Validation 7 verification Documents, Readdressing QA test plan, Tracking & fixing bugs, Adjustment report

5 Feasibility Study

5.1 Economic Feasibility

The cost benefit analysis is a layout and overview used to determine all of the expenses that are associated with the project at hand. It is a tool that is very important to utilize when trying to figure out how much profit (benefit) will be gained accounting for costs that will be need for the system to be initialized and maintained.

As far as benefits are concerned, there are primarily two types of benefits that are discussed in cost benefit analysis: intangible and tangible benefits. . Intangible benefits are benefits that cannot be measured with money. On the other hand there are tangible benefits that can be assign a money value. Intangible benefits in our system are user-friendliness, user satisfaction, and better image. Features such as the message board, history section, contact us section, videos, and written description add on to the user satisfaction, since they will improve the user-friendliness of our web site. User friendliness and user satisfaction add to our image, and could possibly convert to tangible benefits by increasing the sale of DVDs.

Tangible benefits are measure in the cost benefit analysis. There are two types of cost in the cost benefit analysis; the first type is called one-time cost. One-time costs include any initial expenses that must be made when starting a project or business. Such expenses may include: cost of a location/site, hardware and software needed, employee training, and any other type of cost that directly relates to the project at hand. The second type of cost is the recurring cost. Recurring costs are those costs that occur after the initialization of the project. Examples include software upgrades, patches, annual maintenance fees, and other continuous expenses; these costs are to support the system.

Cost Benefit Analysis was actually very helpful in our project because it allowed us to analyze of the system's expenses on a broader scale rather than just the cost of a video and the profits. Like many e-commerce sites, there are a variety of costs that go into the initialization of the web site and continuous costs that must be made to maintain the system. Our data is essential in determining whether or not our project will be economically feasible:

The original objective of our project was to have a fully functional on-line business. The business was going to have several employees: an administrator, developers, dancers, video technicians, accountants and shipping personnel. According to our research we estimated that our one-time cost would be $72,344 and that includes the employees, software, hardware and licenses we would need to develop the web site. Our recurring cost would be about $175,962 a year plus the amount of DVD sold divided by $5, for the first 6 years of operation. All of these values are described in detail in the tables below.

One-time Cost	Amount ($)
Employees	70,000
5 Laptops	4,345
Macromedia Studio	900
Video Camera	900
WildForm Flix	150
PhotoShop	609
Merchant Account	400
Domain Name/Disk Space	40
Total One-time Cost	**72,344**

Recurring Costs	Amount ($)
Employees	175,000
Merchant Account	26/month
Domain Name/Disk Space	50/month
Site Promotion	50/year
Production	5/DVD
Total	**175,962**

Explanation of One-Time Costs:

It will cost about $70,000 in employees to develop the site and the videos. This includes hiring developers, video technicians and dancers. To be able to develop the web site and videos within the time constraint the following hardware is necessary: five laptops ($4345) and a video camera ($900). The software needed is Micromedia Studio ($900), to develop the web site, and WildForm Flix ($150), to vectorize the videos. Our project also requires merchant account ($400) necessary to received online payments. To deploy our web site and store our video database we are going to need a domain name and disk space and that is going to cost $40 initially.

Explanation of Recurring Costs:

To maintain our online business we will need a web administrator, an accountant, shipping personnel, dancers, and video technicians. To hire all of the previously mentioned employees $175,000 is necessary. We also need to continue paying for the domain name and disk space, which costs $50 per month. To keep our merchants account active a fee of $26 must be paid every year. In addition to this, we will also need to promote our site so we can obtain new clients. Companies that provide this service charge about $50 per year to continuously submitted our web site to 100 different search

engines. Finally, the on average a DVD will cost us $5 to make, therefore the recurring benefit divided by $5 will be another recurring cost.

The cost analysis (table A) shows the profits that we would make if our business were executed. In the analysis you can see that in “Year 0” we will not be making any profit since we will be implementing the development phase of our project. In “Year 1” we estimate that since our web site is new and we wont have a lot of market space we will only make about $250,000. Our profit will continue to increase as we gain market; therefore in “Year 2” we estimate we’ll make about $325,000. The profit for the following years will continue to increase until we reach $450,000 in year 6.

Table A: Cost and Benefit Analysis

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Totals
Monetary benefit	$ -	$ 250,000	$ 325,000	$ 375,000	$ 375,000	$ 425,000	$ 450,000	
Discount rate (11%)	1.000	0.901	0.812	0.731	0.659	0.593	0.535	
PV of Benefits	$ -	$ 225,225	$ 263,777	$ 274,197	$ 279,961	$ 267,053	$ 240,588	
NPV of all Benefits	$ -	$ 225,225	$ 489,003	$ 763,199	$1,043,160	$ 1,310,213	$ 1,550,801	$ 1,550,801
One-time Costs	$ (72,344)							
Recurring Costs	$ -	$(225,962)	$ (240,962)	$ (250,962)	$ (250,962)	$ (260,962)	$ (265,962)	
Discount rate (11%)	1.000	0.901	0.812	0.731	0.659	0.593	0.535	
PV Recurring Costs	$ -	$(203,569)	$ (195,570)	$ (183,501)	$ (165,316)	$ (154,868)	$ (142,194)	
NPV of all Costs	$ (72,344)	$(275,913)	$ (471,484)	$ (654,985)	$ (820,301)	$ (975,169)	$ (1,117,364)	$ (1,117,364)
Overall NPV								$ 433,438
Overall ROI								**0.388**
Break-even								
Yearly Cash Flow	$ (72,344)	$ 21,656	$ 68,207	$ 90,696	$ 114,644	$ 112,185	$ 98,394	
Overall Cash Flow	$ (72,344)	$ (50,688)	$ 17,519	$ 108,214	$ 222,859	$ 335,044	$ 433,438	
Break even point	**2.74**	years						

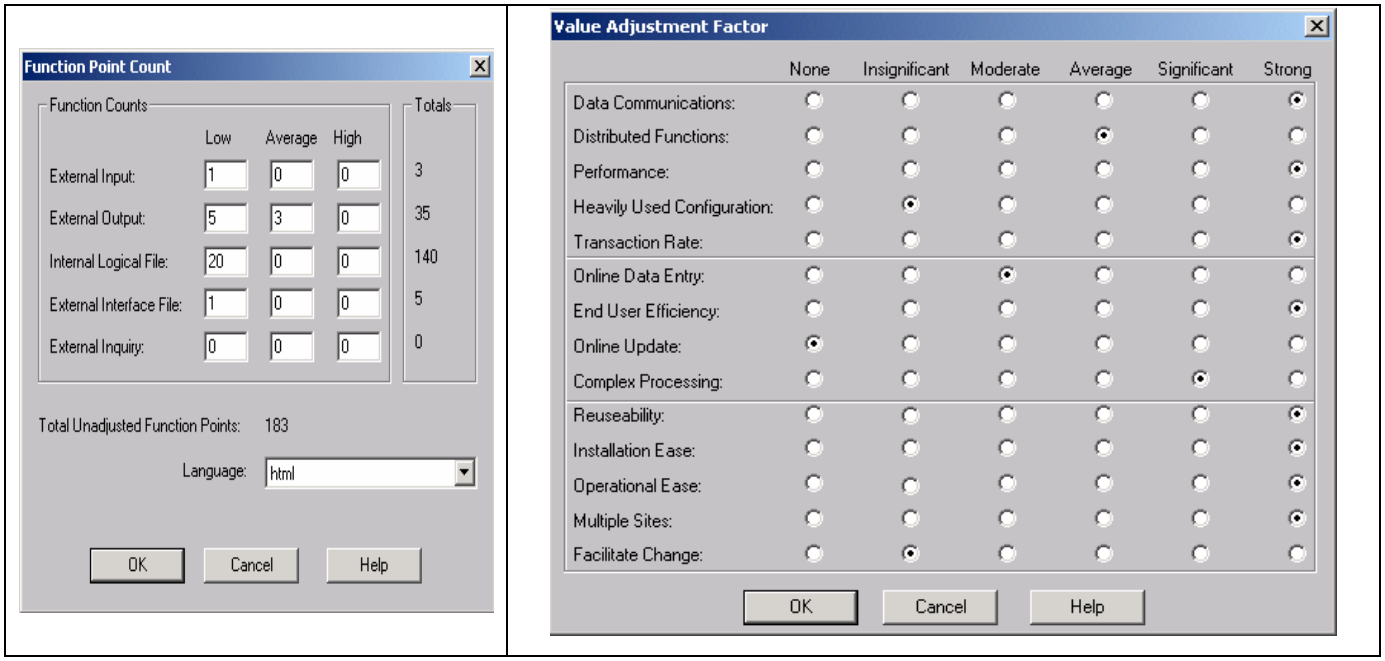
Analysis:

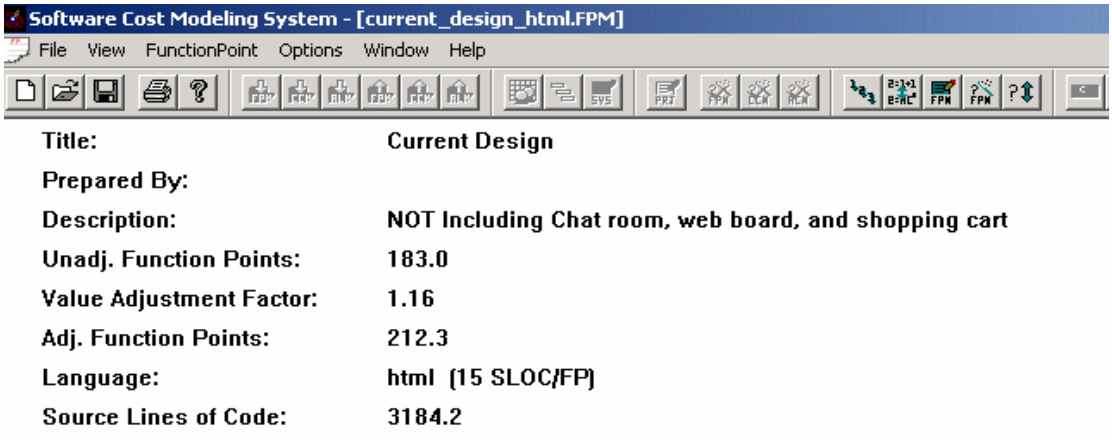
The overall profit in the seven years studied is $433,438. We will reach our break-even point in 2.74 years; this means that we would have cover our expenses and begin to make a profit in less than 3 years. The analysis also gave us a ROI of .388, which means that for every dollar we spend will receive about 40% return on our investment. In comparison the market's return on investment our ROI is moderately good. This means that out online business will be able to compete with organizations since we are making about the same profit. Overall, base on this analysis our business will a profitable investment in less than 3 years, therefore the implementation of SalsaPartyWalk.com will continue as scheduled with few modification as explain below.

In reality we don't have the sufficient funds to start a business of this magnitude. To cut down on expenses the group members will act as the employees. Our software and hardware requirements will be met thanks to our sponsor Dr. Fritman. He will provide the laptops, video camera and software. The only thing that will not be provided for us is the merchants account, which costs $400 initially and $26 for every month of use. Due to our lack of funds we cannot afford the merchant account, therefore the back-end design of the shopping cart will not be design, but our web site will have the front-end design.

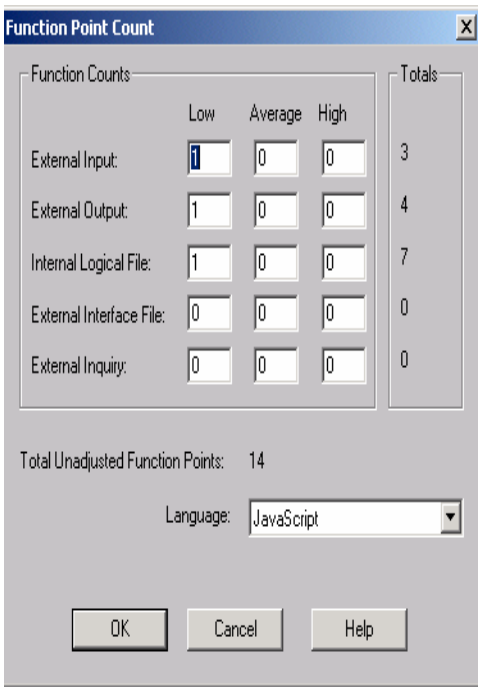
5.2 Function Points Estimate

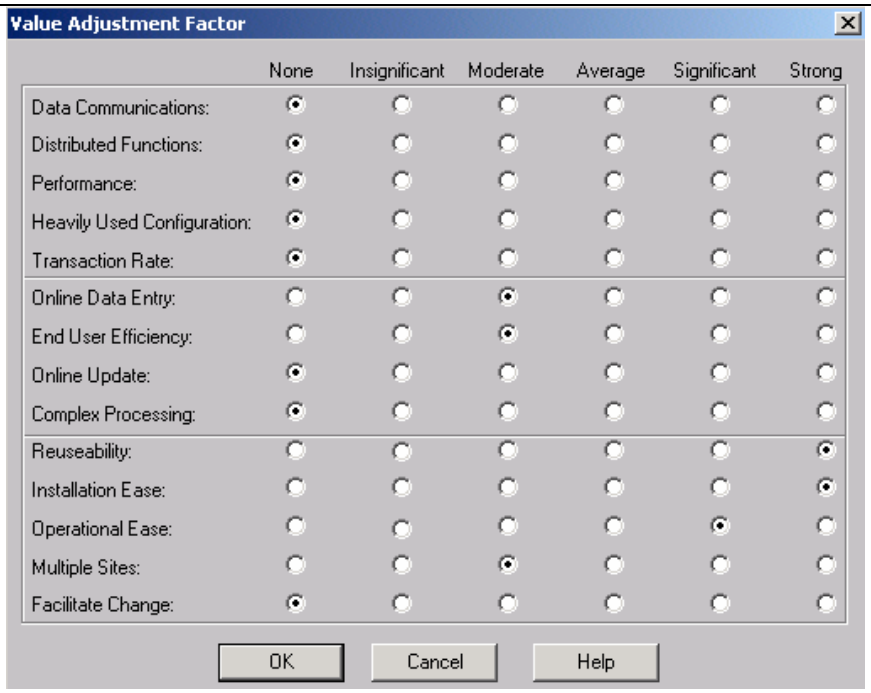
Main pages of web site are design in HTML: this includes Main page, FAQ page, Contact us page, Team Information, Registration form, Purchasing Form, and all the pages showing the moves and instructions for the different genres being taught in the web page.

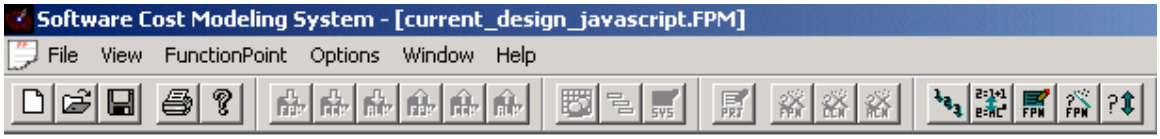




Pages also contain **JavaScript** Code

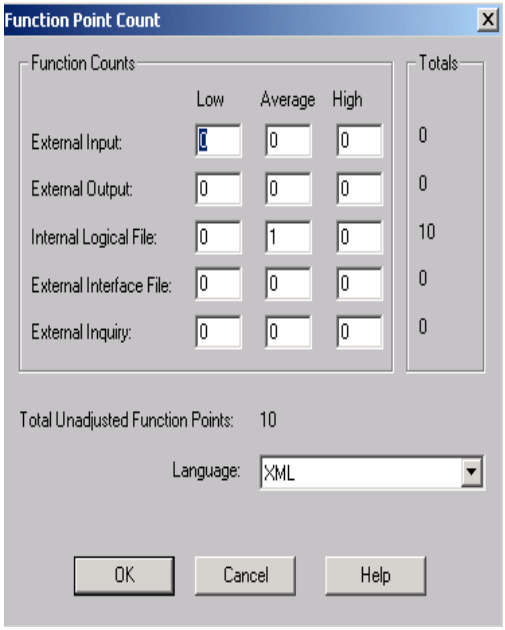


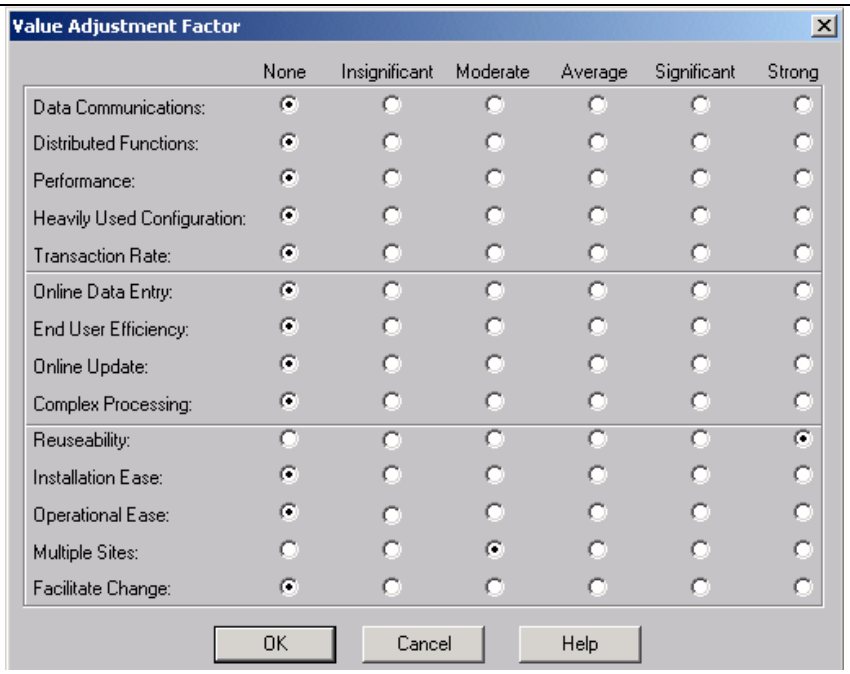


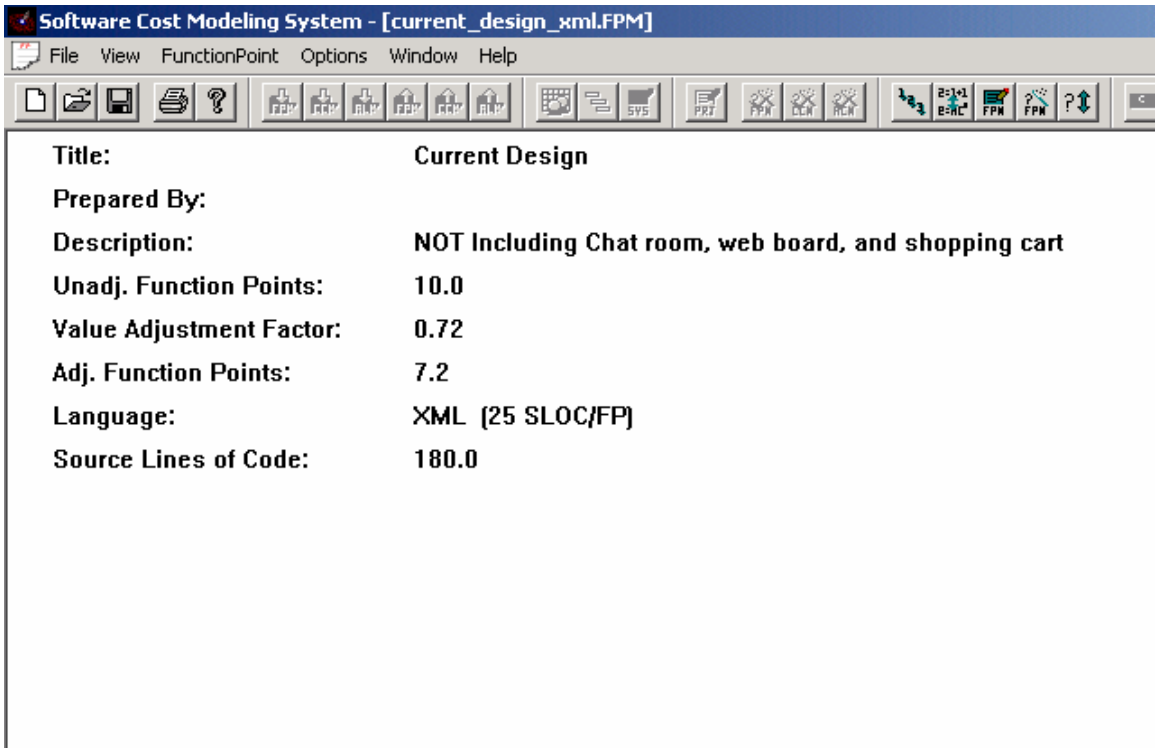


Title:	**Current Design**
Prepared By:	
Description:	**NOT Including Chat room, web board, and shopping cart**
Unadj. Function Points:	**14.0**
Value Adjustment Factor:	**0.85**
Adj. Function Points:	**11.9**
Language:	**JavaScript (30 SLOC/FP)**
Source Lines of Code:	**357.0**

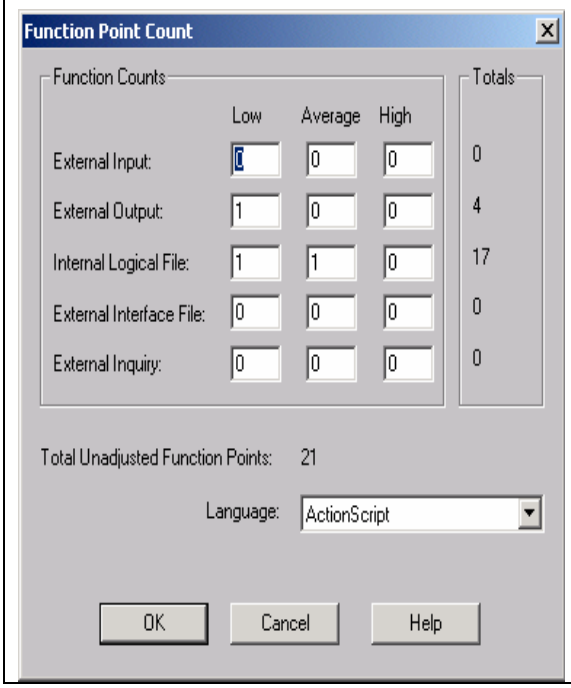
The Web site design has **XML** code

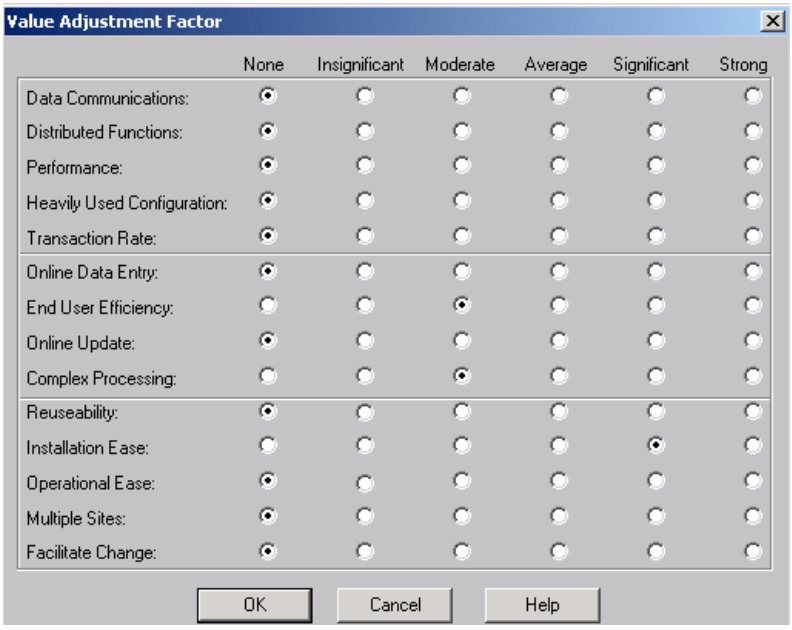


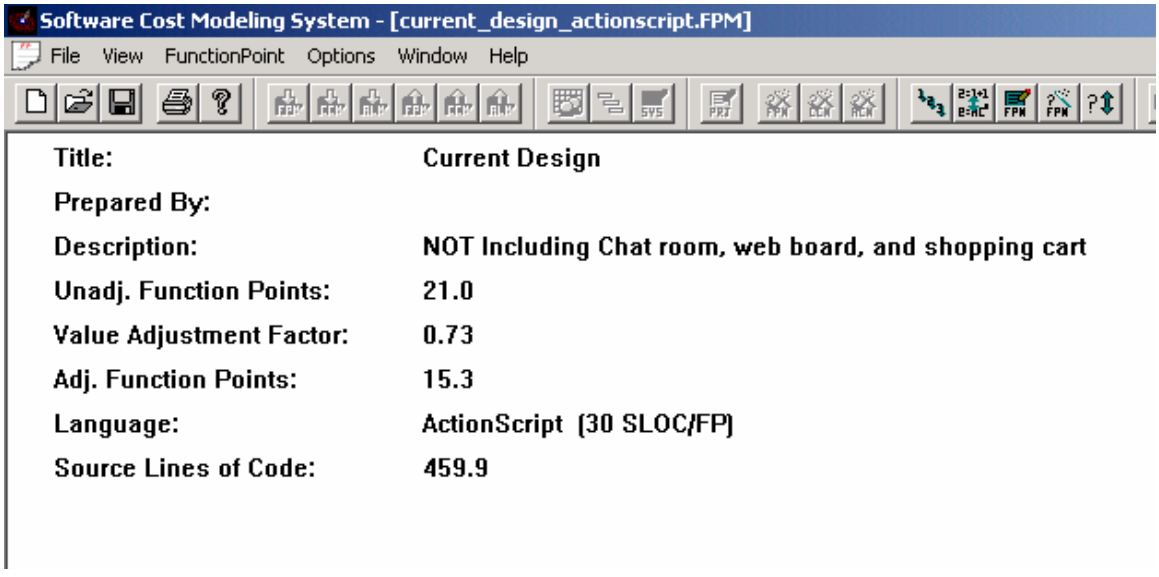




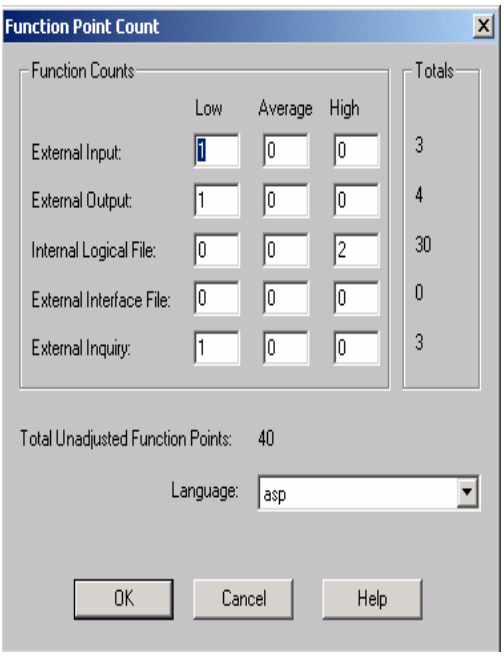
The Web site design has **ActionScript** code

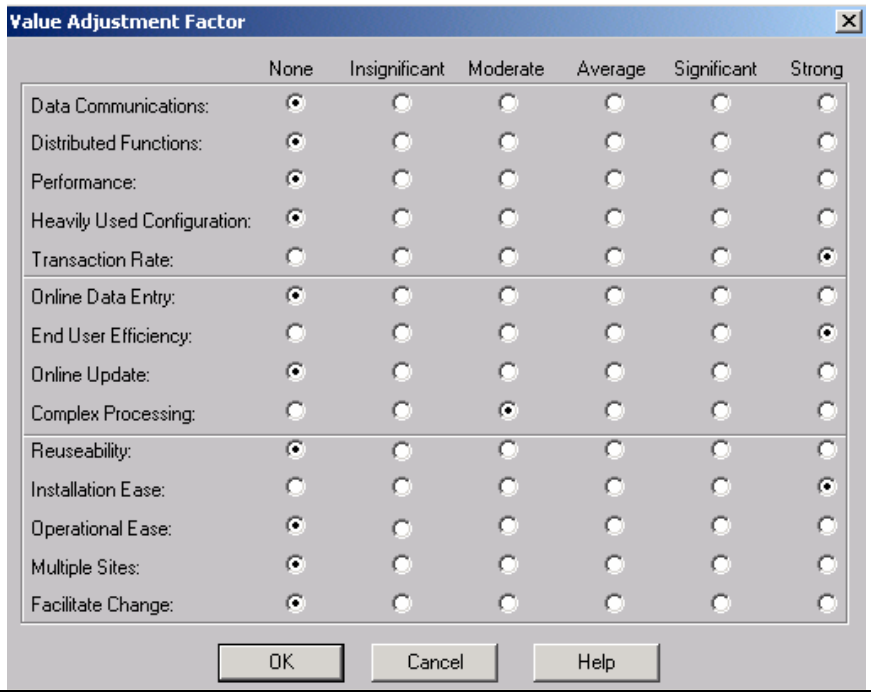






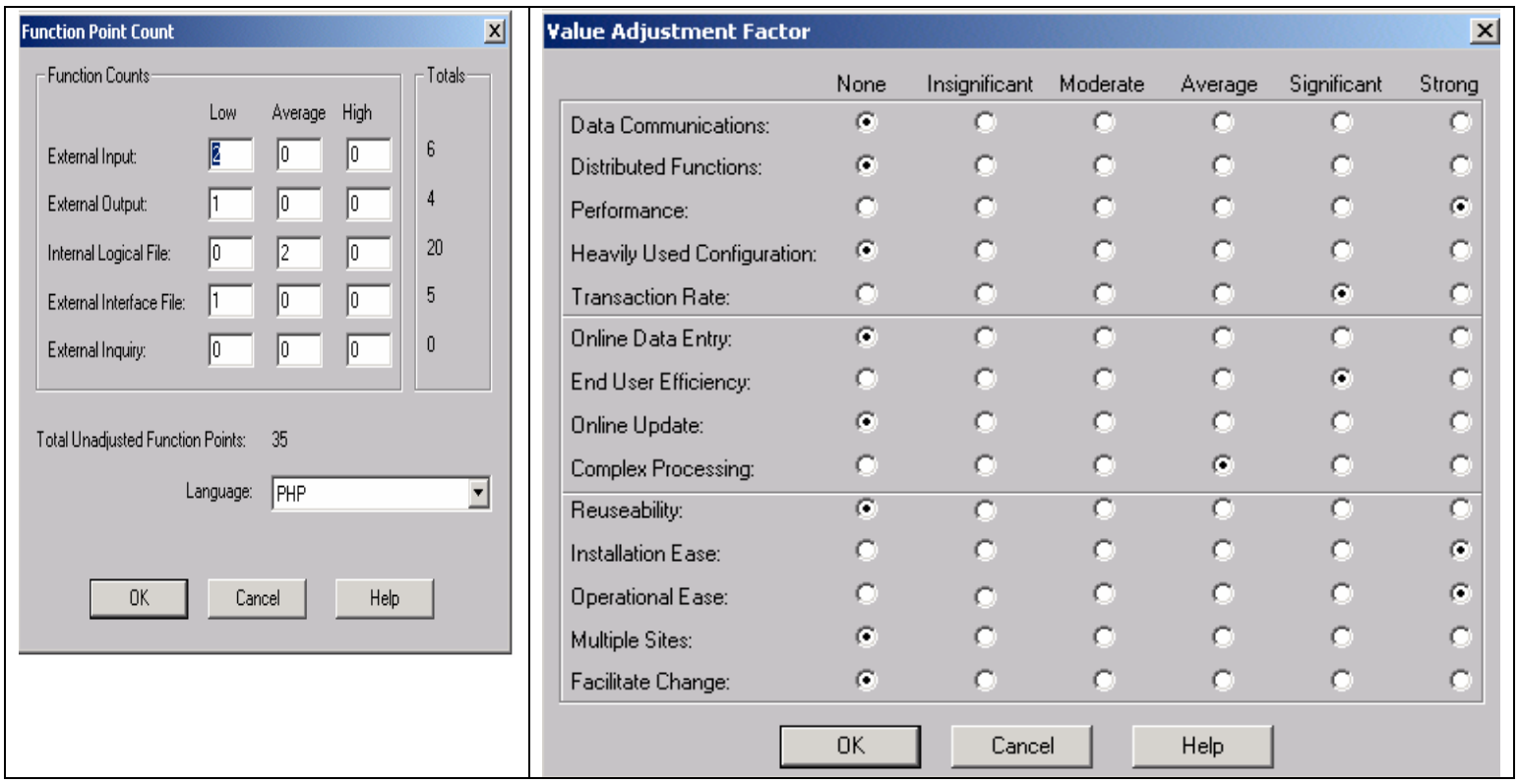
ASP will be use to design the log in system, web board, and shopping cart

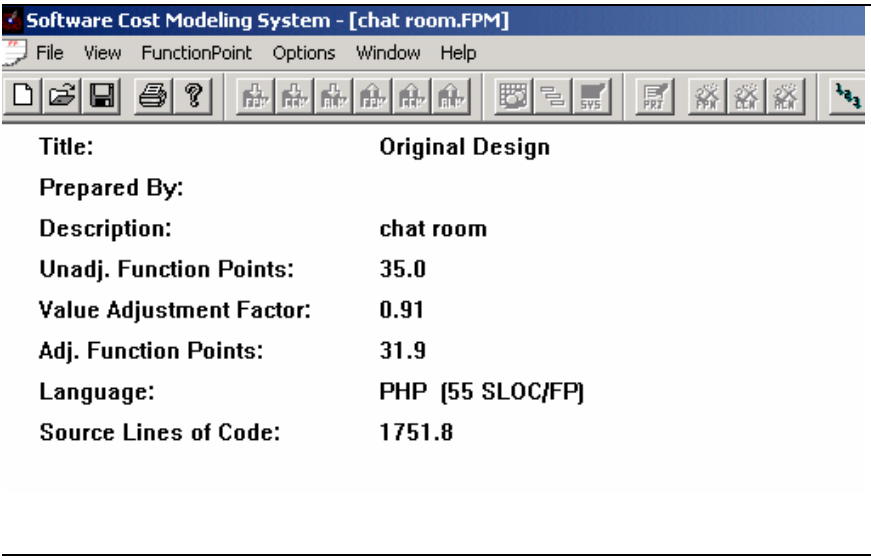


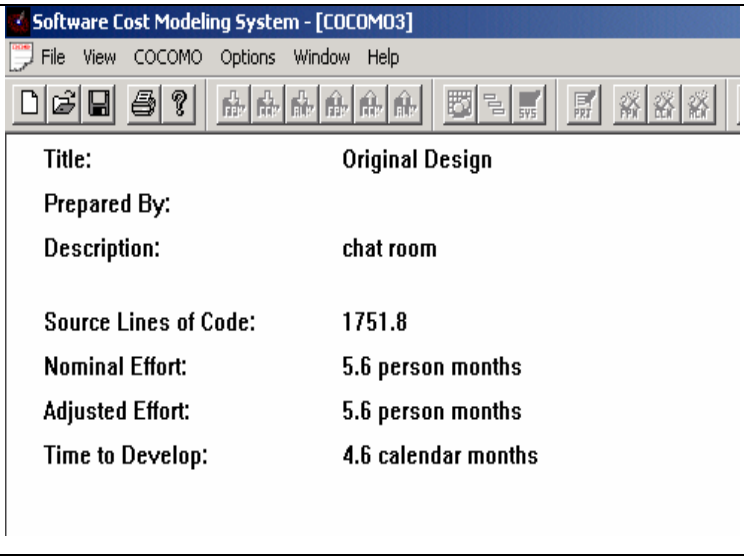


Title:	**Original Design**
Prepared By:	
Description:	**for shopping cart, web board and log in**
Unadj. Function Points:	**40.0**
Value Adjustment Factor:	**0.82**
Adj. Function Points:	**32.8**
Language:	**asp (35 SLOC/FP)**
Source Lines of Code:	**1148.0**

Chat room design in **PHP**







The values and images above were obtained by using COSMOS to determine the total amount of lines necessary to complete this project. Calculations showed that 5329.1 lines of code are needed; COCOMO was then used to determine the efforts months and time to develop the project. The data below was obtained.

Title:	**Current Design**
Prepared By:	
Description:	
Source Lines of Code:	**5329.1**
Nominal Effort:	**19.5 person months**
Adjusted Effort:	**26.1 person months**
Time to Develop:	**7.8 calendar months**

Analysis:

We divided the Adjusted Effort/Time to Develop (26.1/7.8) to obtain the amount of people necessary to complete the project. This calculation suggested that we need 3.35 people to complete the project in 7.8 calendar months. We believe that can meet our due date, even though we only have 3 months to complete the project. We have this level of confidence because we have six group members and we have been working in this project since last semester.

This Function Point and COCOMO also helped us realized that we could not include a chat room in a project. This is because we are already short on time and having to create a chat room will mean that we need an additional person (5.6/4.6 = 1.2). Although a chat room will not be included in this version in the future it could be added since our methodology gives us the option of revisiting phases to add new features to the project.

6 Risk Management

Cost Estimation:

Although research has been done on software and hardware expenses for our system, maintenance costs are a concern. It is difficult to determine what the recurring costs will be considering we cannot predict the size of the project and it's success once finalized. If there is not enough money to maintain the website, then eventually, the site won't be able to be supported. Cost estimation is critical.

System Versatility:

A risk that will have to be taken is the versatility the system is required to have. Considering so many users can access the website, a requirement is that is has to be platform independent. In other words it has to be compatible with different operating systems (e.g. NT/Windws98/ME) so that anyone can access the site regardless of the platform they are using. This risk is high in complexity because continuous upgrades will have to be made to keep up with the changes in platforms, which means more money will have to be invested. If this is not feasible, then we will reduce the amount of clients we can provide service to.

Time Dependability:

As with all projects, deadlines are a reality. With a team of six members and the amount of resources available to us, time is definitely a concern. Prototyping, however, is a method that we plan on incorporating into our project. Before we even begin to carry out the system development on the broader scale, we will gather requirements and specifications in order to produce prototypes of the website. This will allow us to revisit tasks that need improvement. Time in this case is going to be a high risk.

Risk	Complexity	Description
Cost Estimation	**Critical**	Relatively big project. With cost estimates below expectation, project may not be economically feasible. All initial and recurring costs must be taken into account. Initial ideas may not be able to be carried out
System Versatility	**High**	If feasible, system will have to be used by users with different types of platforms. Upgrades to maintain compatibility will be essential.
Time Dependability	**High**	Time constraint is a concern because we cannot afford to spend too much time without progress. Possible alternatives with the time allotted include prototypes of the system.

After analyzing literature reviews and evaluating each of out tasks we obtained the following data:

Task	Cost	Time	Resources
Project Planning			
Milestones & Responsibilities	Low (0%)	High (80%)	Low (0%)
Features List	Low (0%)	High (65%)	Low (0%)
Feasibility Study	Low (0%)	High (90%)	High (80%)
Who's Coming to the Site	Low (0%)	Avg (40%)	High (87%)
Distributing Client Survey	Low (20%)	High (70%)	High (75%)
Determining Primary Objectives	Low (0%)	High (70%)	Low (0%)
Establishing Measurable Goals	Low (0%)	Low (15%)	Low (10%)
Project Scheduling	Low (0%)	High (90%)	Low (18%)
Assigning Hours	Low (0%)	High (95%)	Low (5%)
Usability Test Plan	Low (0%)	Low (15%)	Low (15%)
Quality Assurance Plan	Low (0%)	Low (5%)	Low (5%)

Creative and Technical Brief	Low (0%)	Low (1%)	Low (1%)
Setting Up Project Site	Low (10%)	High (85%)	High (85%)
Risk Management	Low (0%)	High (89%)	Avg (52%)
System Analysis			
Business Models	Low (0%)	Low (2%)	High (86%)
Stakeholders Identification	Low (0%)	High (91%)	Low (2%)
Gathering Requirements	Low (1%)	High (92%)	High (92%)
Documenting & Modeling Requirements	Low (0%)	High (85%)	High (95%)
Outlining Content	Low (0%)	High (90%)	Low (2%)
Creating Content Delivery Plan	Low (0%)	High (87%)	Low (3%)
Building a Site Map	Low (0%)	Low (1%)	Low (2%)
Setting Naming Conventions	Low (0%)	High (94%)	High (94%)
Addressing Functional Areas	Low (0%)	Avg (34%)	Avg (35%)
Creating Screen Schematics	Low (0%)	Low (1%)	Low (1%)
Determining Navigation	Low (0%)	High (90%)	Low (2%)
Outlining Content & Functionality	Low (0%)	High (82%)	Low (2%)
User Scenarios	Low (0%)	High (79%)	Low (0%)
Determining User Paths	Low (0%)	High (89%)	Low (0%)
Reviewing User & Technical Goals	Low (0%)	High (93%)	Low (2%)
Conceptual Brainstorming	Low (0%)	Avg (45%)	Avg (45%)
Creating Graphics Video etc.	High (92%)	High (92%)	High (92%)
Creating Style Guides etc.	Low (0%)	Low (1%)	Low (1%)
Prototyping	Low (0%)	High (92%)	Avg (44%)
Testing and Verification	Low (0%)	Avg (51%)	Avg (51%)
Testing Usability	Low (0%)	Avg (44%)	Avg (44%)
System Design			
System Structuring	Low (0%)	Avg (32%)	High (90%)
Control Models	Low (0%)	Avg (32%)	Avg (32%)
Modular Decompositions	Low (0%)	Avg (32%)	Low (2%)
Database Design	Low (5%)	Low (5%)	Avg (32%)
User Interface Design	Low (0%)	High (88%)	High (88%)
Readdressing Scope and Budget	Low (0%)	High (84%)	Low (10%)
Readdressing Tech	Low (2%)	High (93%)	Low (2%)

Requirements			
Setting up a File Structure	Low (0%)	High (86%)	Avg (43%)
Addressing Site Maintenance	Low (0%)	Avg (42%)	Avg (42%)
Optimizing Graphics	Avg (35%)	High (91%)	Avg (39%)
Addressing Scripting	Low (0%)	Avg (39%)	Avg (39%)
Populating Pages	Low (0%)	High (90%)	High (90%)
Integrating with Back End	Low (0%)	High (90%)	Low (2%)
Final Documentation			
Full Project Documentation	Low (0%)	High (90%)	Avg (38%)
Implementation Plan	Low (0%)	High (90%)	Avg (37%)
Final Software Product			
Software Testing			
Validation and Verification Documents	Low (0%)	High (90%)	High (90%)
Readdressing QA Test Plan	Low (0%)	High (90%)	Avg (41%)
Conducting QA Testing	Low (1%)	High (90%)	High (90%)
Tracking and Fixing Bugs	Low (0%)	High (90%)	Low (1%)
Adjustments Report	Low (1%)	Low (1%)	Low (2%)
Configuration Management Report	Low (1%)	High (90%)	High (90%)

7 Features List

After doing the economical analysis and function point estimate we developed the following feature list, which includes all the main features we are going to be able to include in our project keeping in mind our money and time constraints.

- ***Preview videos:*** Every guest to the website will be able to preview some of the site's videos free of charge. This is an important feature to the website because people want to know what they are signing up for before they proceed with becoming a member.
- ***Member registration:*** In order for someone to become a member of the website, a simple registration form requesting an email address, a user name, and a password is required.
- ***Login:*** To view the videos and description of the moves, a member must enter their user name and password. They will then gain access to the website's video downloads and all other member features.
- ***Video Downloads:*** The video downloads are probably the most essential feature DanceOnline.Com has. The videos are the core of the website because they are what attract the users. The main objective of DanceOnline.Com is to have users learn how to dance with the instruction provided in these videos. The video files are small in size to achieve high speed downloads but still maintain good quality. In addition, the cartoon-like presentation of the videos, give them a more attractive look.
- ***Written Move breakdowns:*** As a supplement to the moves taught in the videos, a written description of the moves- step by step - are also provided. Since each person

has a different learning curve, this feature will be beneficial for those students who prefer more written details as opposed to visual instruction.

- ***Message Board:*** If a member wants to post an idea, question, comment, or concern they can use the website message board. This message board is provided so that the users are able to interact with not only other members, but the featured dancers as well.
- ***Literature:*** The website will provide information on the dances that are taught. This will entail a brief history of the dance and its origin.
- ***Resources:*** In addition to videos and written moves, the website will provide information on clubs, events, and music that users can benefit from. This will also include links to websites that are dance related.
- ***Frequently asked Questions:*** Sometimes there are simple questions that are commonly asked by users. By having a section where other users can view these questions and their answers, there will be less of a need to contact the website via email and therefore be beneficial to everyone.
- ***Contact Page:*** Any other questions or concerns there may be concerning DanceOnline.Com can be emailed. The contact page will provide all of the contact information needed to reach a DanceOnline.Com representative.

Phase II –System Analysis

1. Requirements Engineering

1.1 Business Model

SalsaPartyWalk.com utilizes a combination of both a merchant and subscription model. The Virtual Merchant Model involves wholesalers and retailers selling goods and services at list prices or through auction. The Subscription Model on the other hand provides a combination of free and paid products or services to the user. Users are charged a recurring fee to subscribe to a service. This may be done daily, monthly or annually depending on the business. SalsaPartyWalk.com incorporates the key features of these models in order to establish it's own model.

The SalsapartyWalk.com website is similar to the Merchant Model in the sense that clients can purchase a DVD online for the price of $24.99. Because, however, the clients also have other options in addition to purchasing the DVD, the business model also reflects the Subscription Model. SalsaPartyWalk.com provides services for its clients free of charge once a client has registered and become a member. These services are video downloads, a message board, pictures and descriptions of each move, and links to additional dance-related resources. This unique business model will set this website apart from its competitors.

Bustamove.com is SalsapartyWalk.com's main competitor. Although it provides similar services such as resources and dance videos, it lacks a versatile style of teaching. More specifically, Bustamove.com does not provide still frames of dance moves supplemented by move descriptions. This is where SalsaPartyWalk.com stands out; with such features everyone will have additional resources, which will enable clients to learn

more efficiently. Another advantage to SalsaPartyWalk.com is the download time for videos. The website provides quick downloadable videos while maintaining good quality unlike Dancetutor.com, which is another competitor. These advantages set a solid foundation for the website's success.

The free features provided by SalsaPartyWalk.com also contribute to the site's uniqueness. Providing the client with free features such as history of dances, additional dance resources, and most importantly free videos will attract these clients to purchase the online DVD; rather than purchasing individual moves on other sites. This concept of providing free and paid content online is the backbone of the business. The fusion of the Merchant and Subscription models will make SalsaPartyWalk.com surpass all of its competitors.

Reference: http://digitalenterprise.org/models/models.html

1.2 Stakeholders Identification

1.2.1 Stakeholders Definition

Administrator: The main task of the administrator is to oversee all of web page operations. Specifically, the admin will receive emails from users that made a contact with the email provided on the contact page of the website. The admin will also be in charge of maintaining the website throughout the site's life span. In addition the admin will be responsible for administrating the website's message board and responding to any technical problems the users may have. The administrator will overall handle all of the website's business operations.

Front-End Developers: The developers are divided into two groups: front-end and back-end. The front-end developers are responsible for designing a well-structured and user-friendly web site. Ease of use is critical to the success of the website so the front-end or interface of the website must be customized for the general public (the targeted clientele). Front-end developers will use HTML, Flash, JavaScript, and XML to implement the website. They are responsible for the various areas of the website including the Contact Page, FAQ's, Team Bios, and Dance sections to name a few. The front-end development is directly related to the user's impression of the website considering it determines what the users will see on their screen.

Back-End Developers: Once the attractive and user-friendly site is created, the website is now ready to have operational features added to it. The back-end developers work closely with the front-end developers to produce a fully functional and practical operation of the website. Utilizing PHP and C-Sharp languages supplement the website's look with functionality. In order for the website to carry out transactions such as logging in and out of the system or purchasing a DVD, it must submit to some form of back-end design.

Dancers: The main objective of the dancers in the videos is to provide an efficient and understandable instruction that potential students can benefit from. The dancers perform and instruct all the moves provided on SalsaPartyWalk.com. They also

interact with the users (students) via the website message board. Like the users, dancers can also post messages on the site's message board to address any questions, concerns, or comments that a prospective student may have. Dancers want to make the instruction over the web as simple as possible so that students feel as though they are in a real class.

Video Taping Specialist: The video taping specialist is primarily in charge of filming the dancers. Although this task seems simple, the specialist must ensure that the moves are recorded accurately. Shots need to be taken with precision so that moves are projected how the dancers want them to be projected. Close detail of the feet movements and hand positioning need to be enhanced particularly when filming the basic steps.

Video Editors: Once the video taping specialist films the dancers, these videos must be put on a computer; this is the duty of the Video Editor. More specifically the editor must go through a process of taking the videos' original format and converting it into a format that will comply with the website's requirements. The videos need to be cut down into clips of individual moves, edited, and vectorized before it can even be uploaded onto the website. This process can take a while and is dependent upon the tasks of the Video Taping Specialist. Similar to the developers, both the specialist and editor work together to output their final product.

Users: The users are critical to the operations of DanceOnline.com since our system revolves around their needs and requirements. There are two types of users: non-members and members. **Non-members** are potential customers visiting our web page. They are able to see sample videos and access the team bios, contact page, FAQ and other general information on the web site. **Members** are the users who register and obtain a login ID and a password. They have full access to all of the web sites information and main features. Based on our survey our members can be broken down into the following categories:

Members Group 1: In this group the users have the following characteristics: They are between the ages of 16 to 18 years old. They are either in high school or just gradated from high school and looking to go directly into the work field or to college.

Their income is between $0 to $5,000 a year. They have a low or moderate experience with computers and have a modem connection of 56k. They shop on-line frequently and also visit many entertainment sites, including dance sites.

Members Group 2: Users belonging to this group are mainly young people ranging from ages 19 to 23 years old. They are either in college or have technical or non-technical job. They make anywhere from $0 to $20,000 a year. Their computer skills are intermediate or advance and most have a DSL, or 56k modem connection. Some shop on-line often and others shop on-line frequently. Like the first group they look for entertainment sites, which also include dance sites.

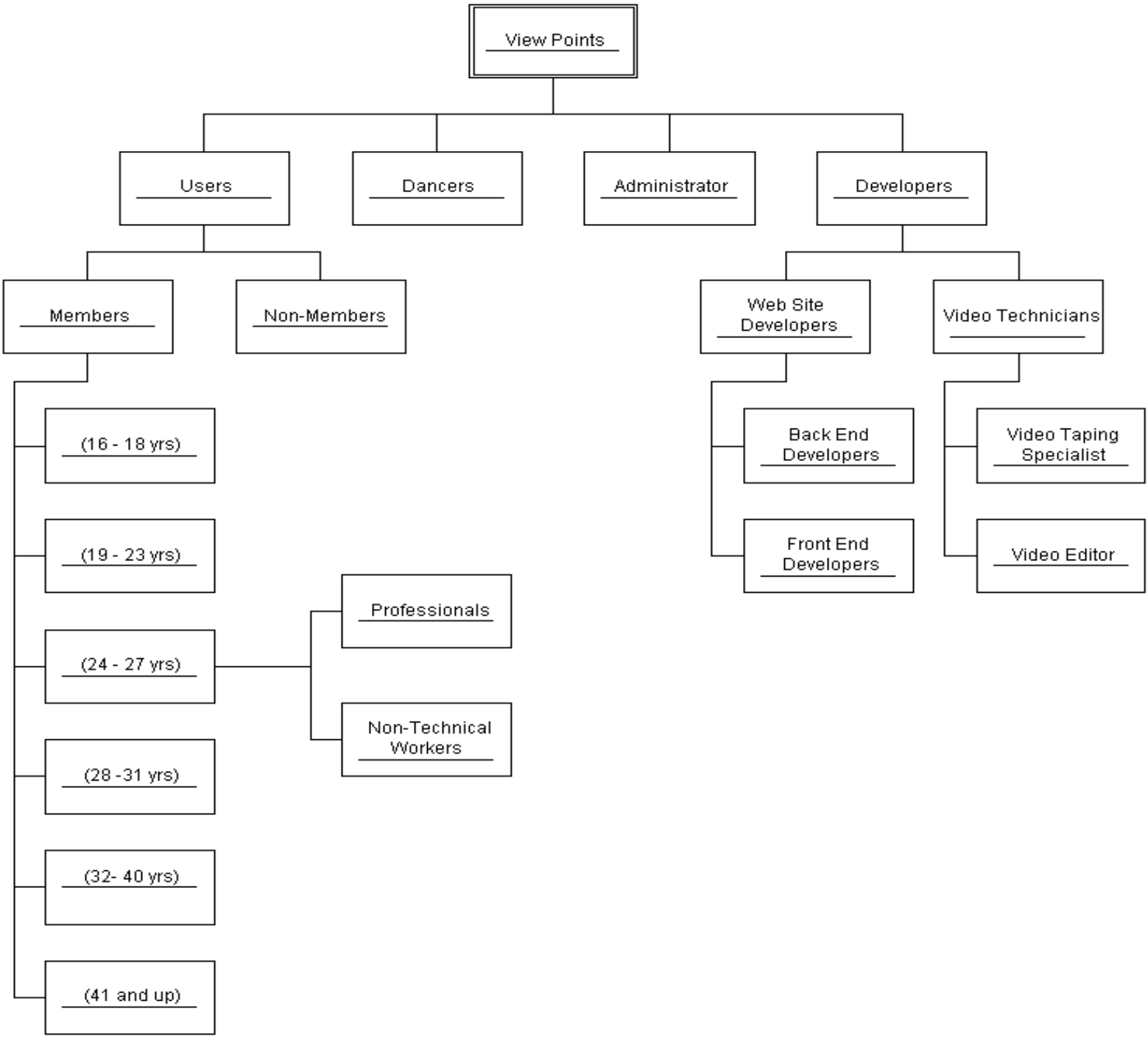
Members Group 3: In this group, users are 24 to 27 years old. People in this group can be divided into two categories: Professionals and Non-Technical workers. The professionals are those that have recently graduated from college and new to the work field. On average the professional earns anywhere from $30,000 and up each year. The professionals have intermediate to advance computer knowledge and have a DSL or 56k modem connection. On the other hand the Non-Technical workers make anywhere from $15 to $40 a year. Most of the non-technical workers have a 56k modem connection and have beginner to intermediate computer knowledge. Both groups shop on-line frequently; they look for knowledge and entertainment in the Internet and often visit dance related web sites.

Members Group 4: The people in this group are 28 to 31 years old. They are either professionals, technical, and non-technical workers. They make $20,000 a year and up. Their computer knowledge is intermediate and most have a 56k modem connection. They either seldom or sometimes purchase products over the web. They usually look for web sites that provide current news, or general knowledge and also entertainment.

Members Group 5: The users in this group are 32 to 40 years old. On the average they are economically stable making anywhere from $30,000 to $50,000 a year. Some hold professional, technical and non-technical positions. Most of them are beginners when it comes to computers and have a 56k modem connection. They rarely shop on-line and look for current events and entertainment sites.

Members Group 6: Users who are age 41 and older fall into this group. They make a yearly income of $20,000 and up. These people have diverse positions: they are unemployed, non-technical workers, technical or professionals. They have very little or moderate computer knowledge and have a DSL or 56k modem connection. They never or seldom shop-online and are most of the time look for entertainment web sites.

1.2.2 Hierarchy Diagram

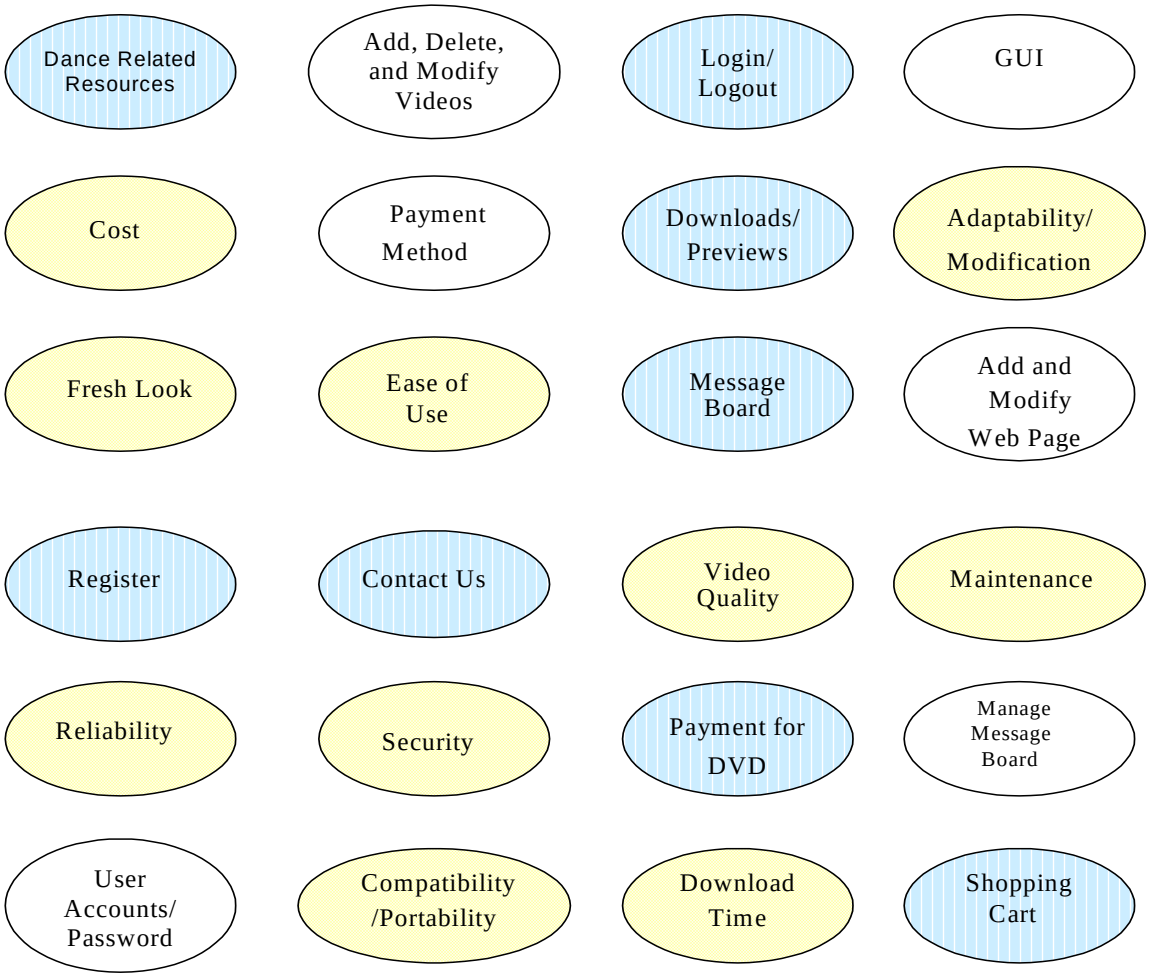


1.3 Gathering Requirements

1.3.1

VORD Method

Brainstorming for Viewpoints



	Main Functions
	Non-Functional Requirements
	Functional Requirements

1.3.1.2 Services Provided By Stakeholders

ADMINISTRATOR

Services
- Receives emails sent by users with the site's contact info - Maintain and Support Website - Administrates site's Message Board

DANCERS

Services
- Instruct dances in the videos - Reply to questions posted on the site's Message Board

VIDEO EDITOR

Services
- Imports videos taken by specialist - Edits each video - Converts videos into proper format - Uploads final video files

FRONT-END DEVELOPERS

Services
- Design front-end of website (GUI) - Ensures the site is presentable

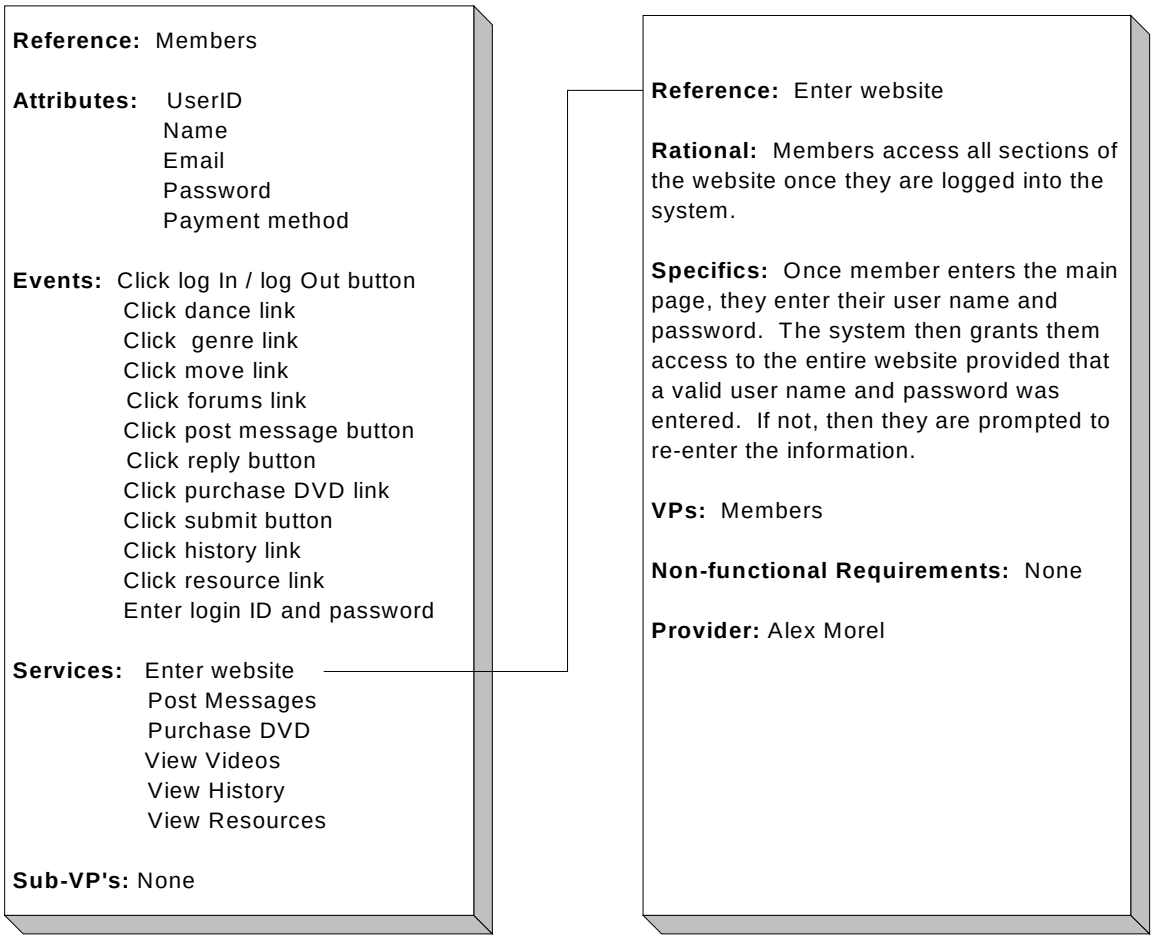
BACK-END DEVELOPERS

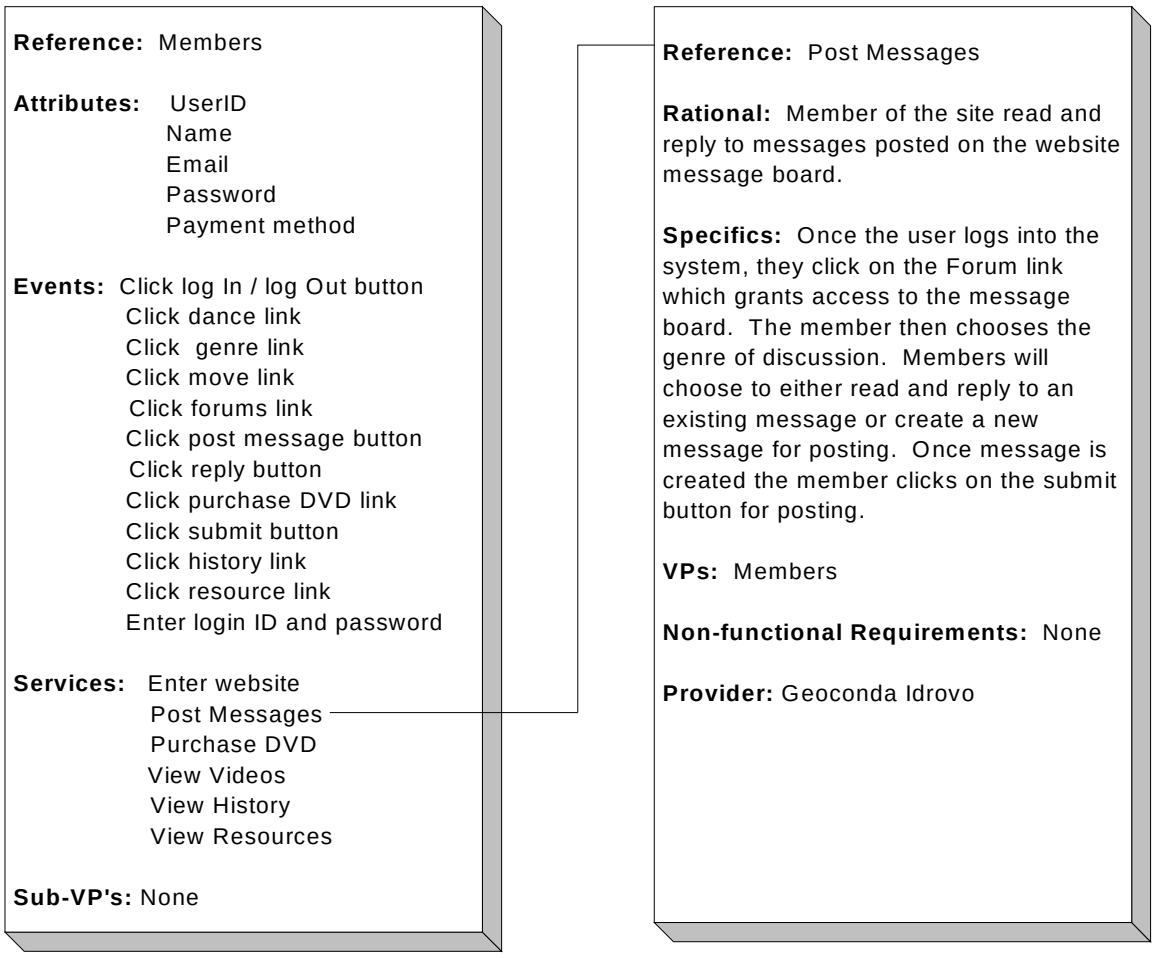
Services
- Design back-end of website (functionalities) - Ensures the site can operate successfully

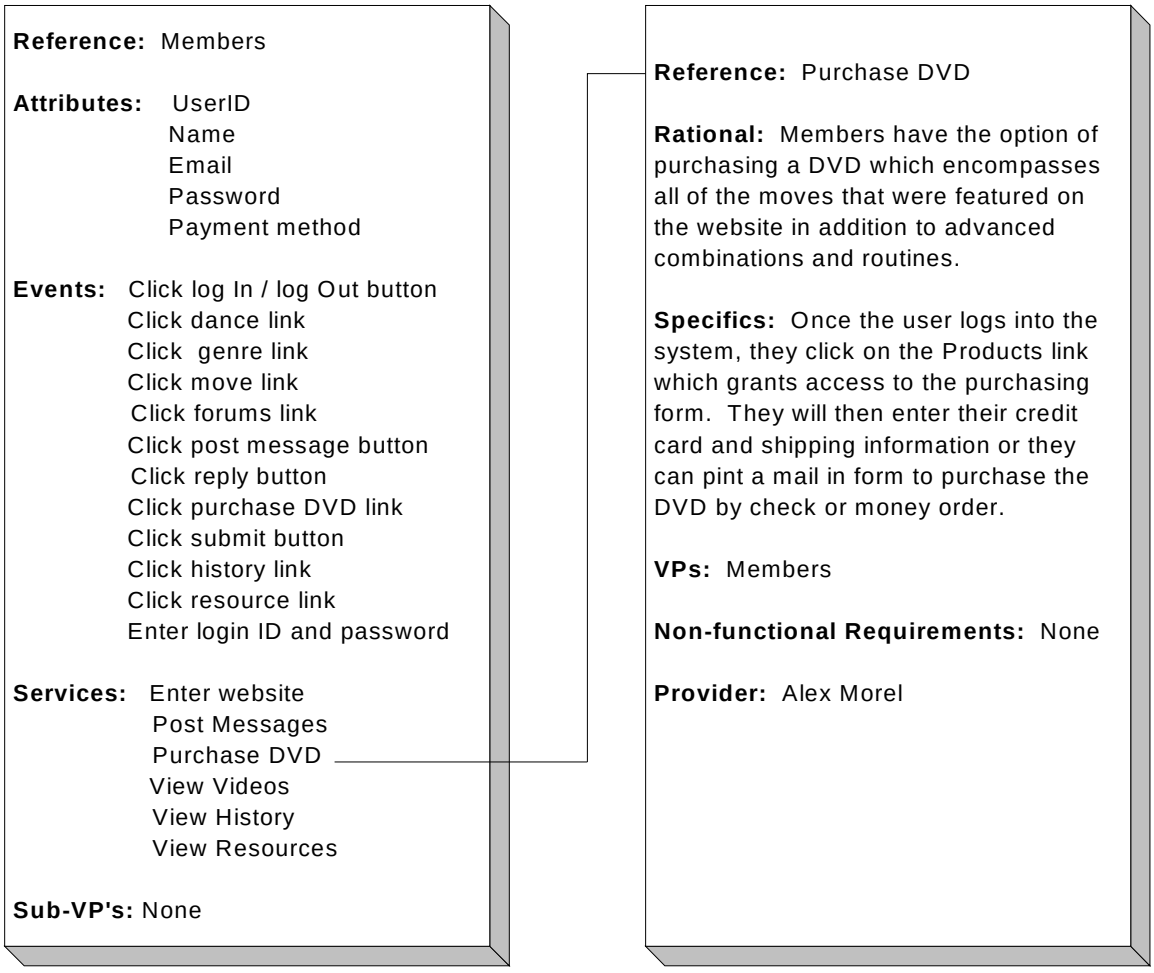
VIDEO-TAPING SPECIALIST

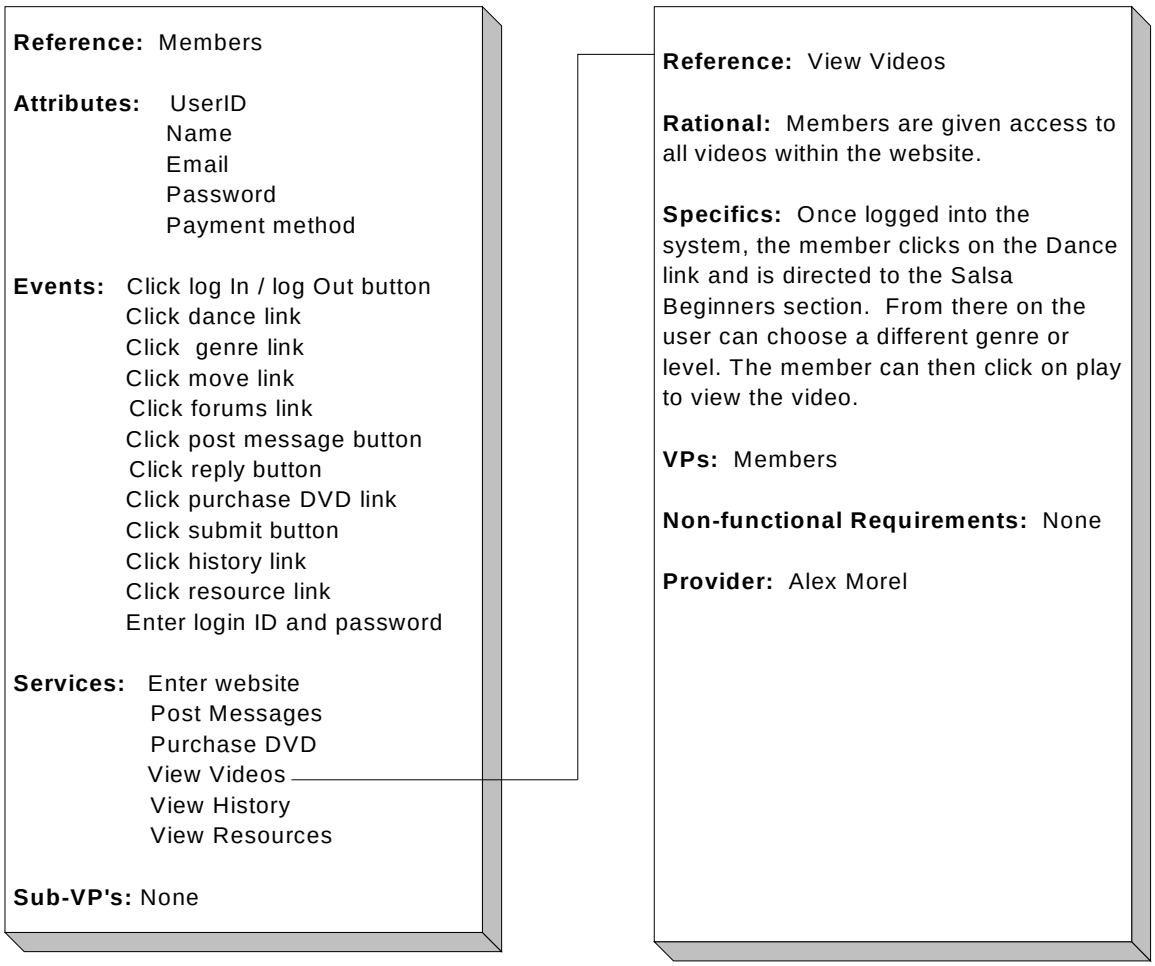
Services
- Films dancers as they instruct moves for the videos - Ensures quality shots are video-taped

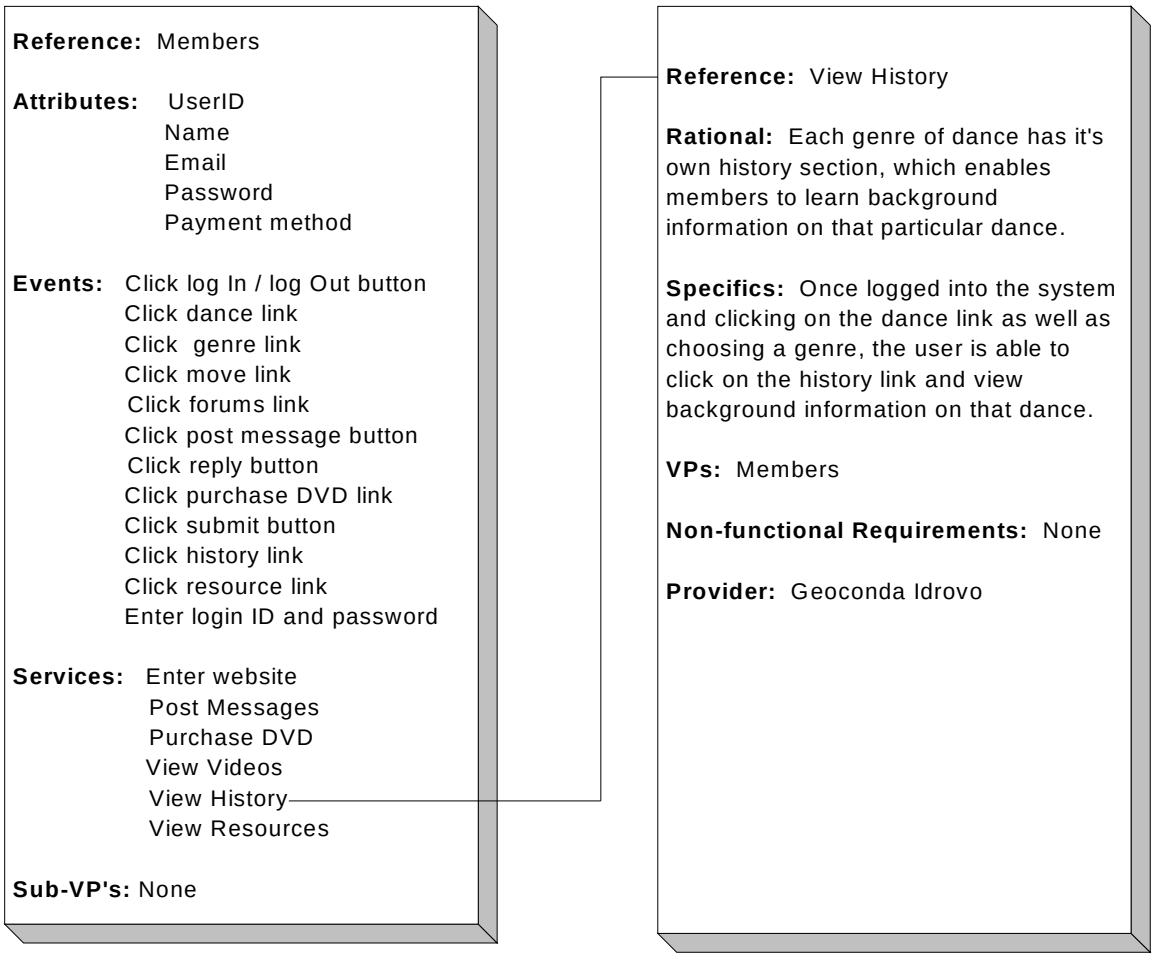
1.3.1.3 View Point and Service Templates

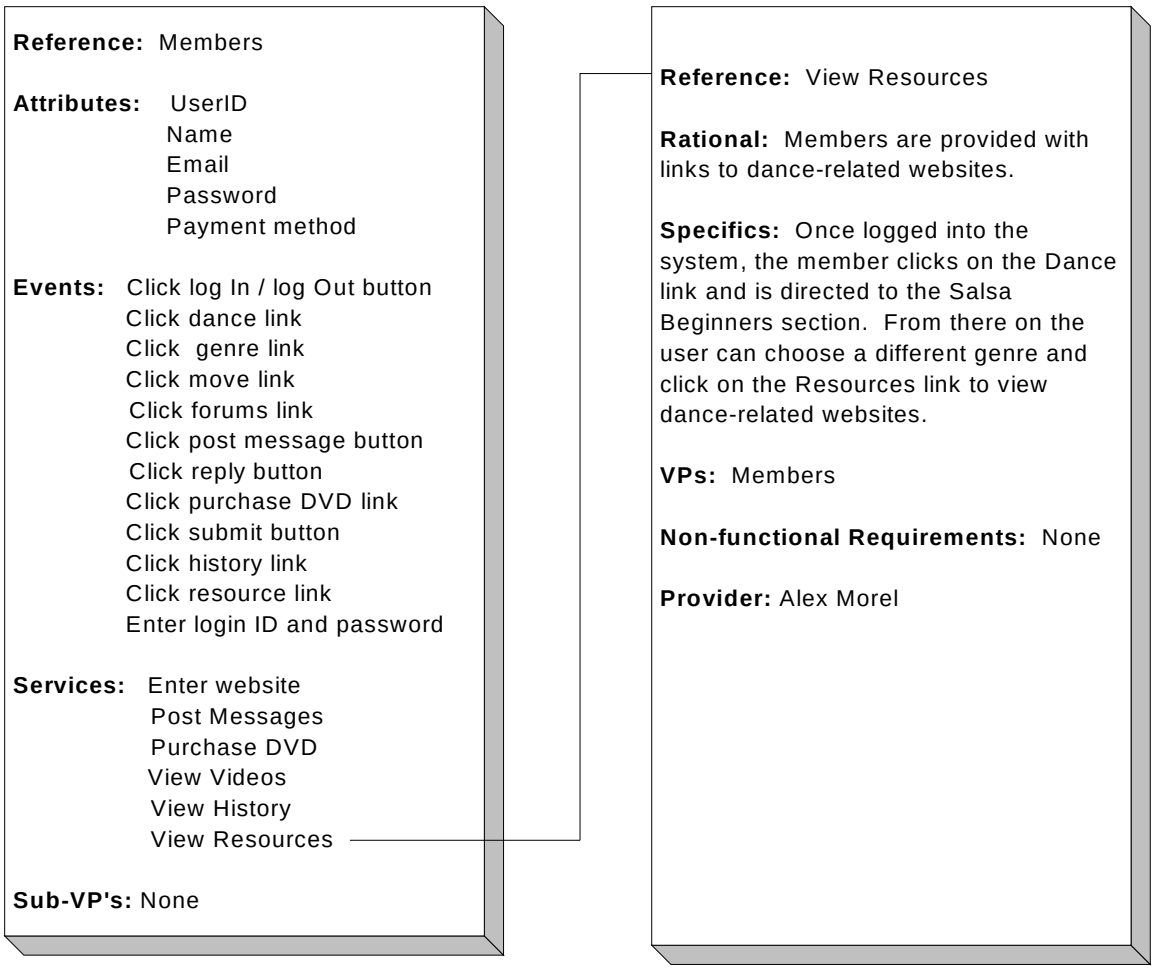


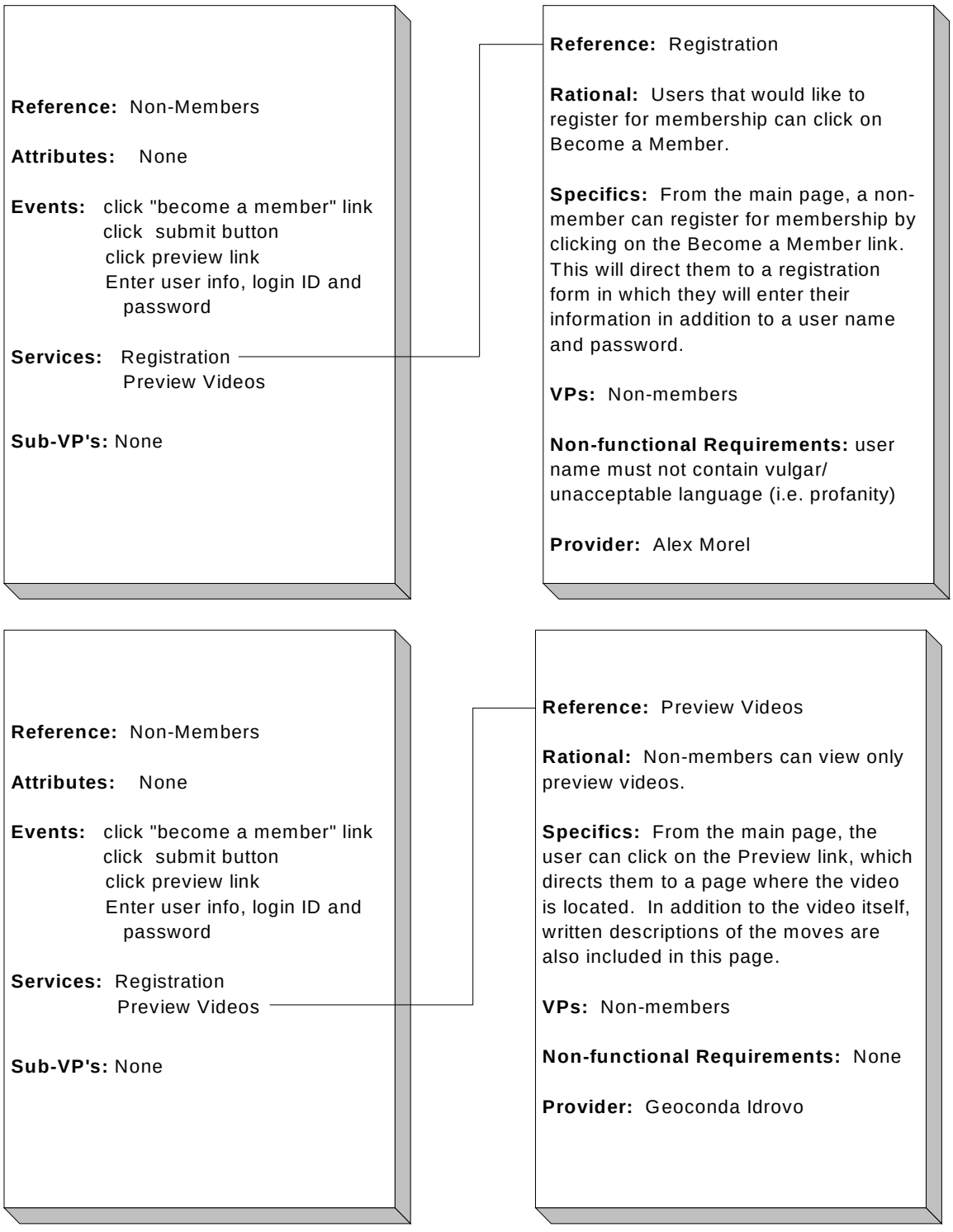

Reference: Members
Attributes: UserID
Name
Email
Password
Payment method
Events: Click log In / log Out button
Click dance link
Click genre link
Click move link
Click forums link
Click post message button
Click reply button
Click purchase DVD link
Click submit button
Click history link
Click resource link
Enter login ID and password
Services: Enter website
Post Messages
Purchase DVD
View Videos
View History
View Resources
Sub-VP's: None
Reference: Post Messages
Rational: Member of the site read and reply to messages posted on the website message board.
Specifics: Once the user logs into the system, they click on the Forum link which grants access to the message board. The member then chooses the genre of discussion. Members will choose to either read and reply to an existing message or create a new message for posting. Once message is created the member clicks on the submit button for posting.
VPs: Members
Non-functional Requirements: None
Provider: Geoconda Idrovo

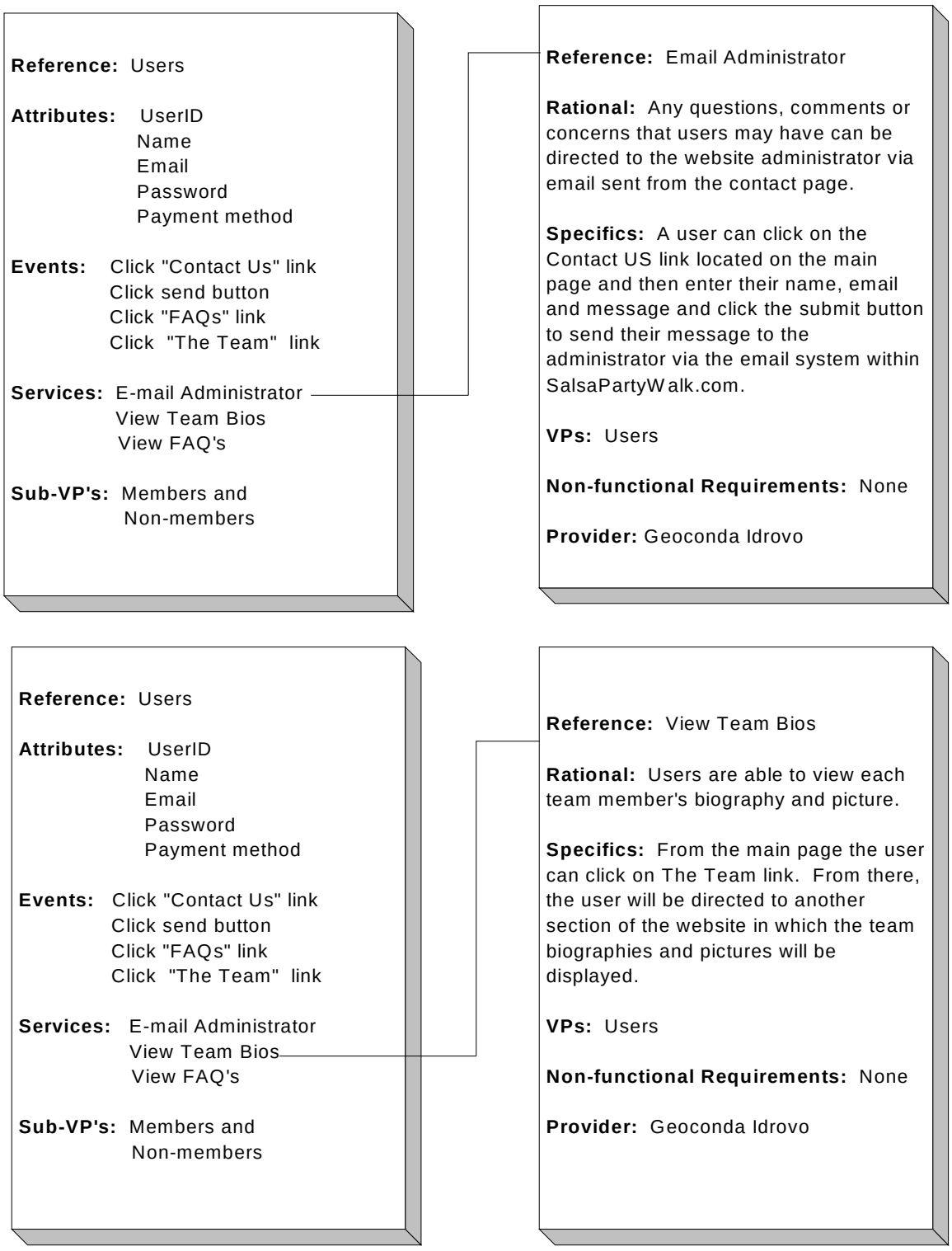

Reference: Members
Attributes: UserID
Name
Email
Password
Payment method
Events: Click log In / log Out button
Click dance link
Click genre link
Click move link
Click forums link
Click post message button
Click reply button
Click purchase DVD link
Click submit button
Click history link
Click resource link
Enter login ID and password
Services: Enter website
Post Messages
Purchase DVD
View Videos
View History
View Resources
Sub-VP's: None
Reference: Purchase DVD
Rational: Members have the option of purchasing a DVD which encompasses all of the moves that were featured on the website in addition to advanced combinations and routines.
Specifics: Once the user logs into the system, they click on the Products link which grants access to the purchasing form. They will then enter their credit card and shipping information or they can pint a mail in form to purchase the DVD by check or money order.
VPs: Members
Non-functional Requirements: None
Provider: Alex Morel

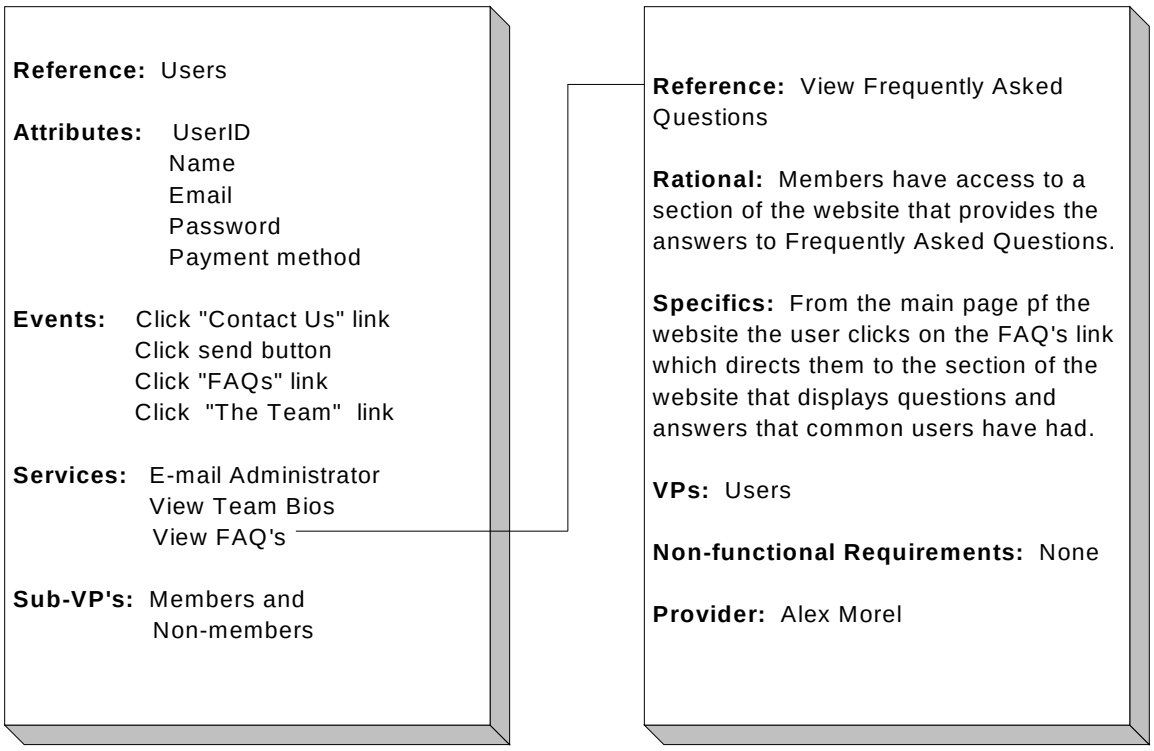

Reference: Members
Attributes: UserID
Name
Email
Password
Payment method
Events: Click log In / log Out button
Click dance link
Click genre link
Click move link
Click forums link
Click post message button
Click reply button
Click purchase DVD link
Click submit button
Click history link
Click resource link
Enter login ID and password
Services: Enter website
Post Messages
Purchase DVD
View Videos
View History
View Resources
Sub-VP's: None
Reference: View Videos
Rational: Members are given access to all videos within the website.
Specifics: Once logged into the system, the member clicks on the Dance link and is directed to the Salsa Beginners section. From there on the user can choose a different genre or level. The member can then click on play to view the video.
VPs: Members
Non-functional Requirements: None
Provider: Alex Morel


Reference: Members
Attributes: UserID
Name
Email
Password
Payment method
Events: Click log In / log Out button
Click dance link
Click genre link
Click move link
Click forums link
Click post message button
Click reply button
Click purchase DVD link
Click submit button
Click history link
Click resource link
Enter login ID and password
Services: Enter website
Post Messages
Purchase DVD
View Videos
View History
View Resources
Sub-VP's: None
Reference: View History
Rational: Each genre of dance has it's own history section, which enables members to learn background information on that particular dance.
Specifics: Once logged into the system and clicking on the dance link as well as choosing a genre, the user is able to click on the history link and view background information on that dance.
VPs: Members
Non-functional Requirements: None
Provider: Geoconda Idrovo

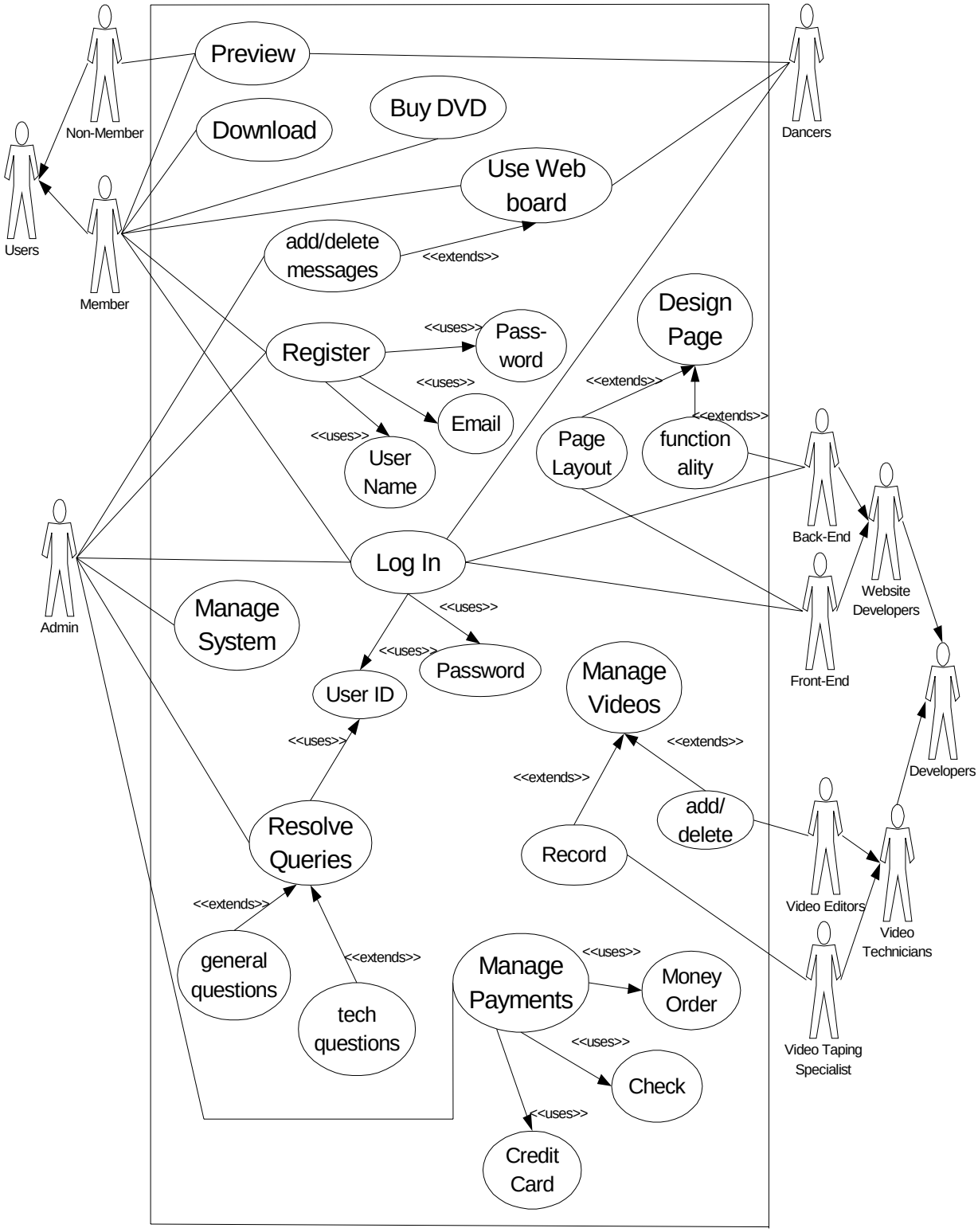

Reference: Members
Attributes: UserID
Name
Email
Password
Payment method
Events: Click log In / log Out button
Click dance link
Click genre link
Click move link
Click forums link
Click post message button
Click reply button
Click purchase DVD link
Click submit button
Click history link
Click resource link
Enter login ID and password
Services: Enter website
Post Messages
Purchase DVD
View Videos
View History
View Resources
Sub-VP's: None
Reference: View Resources
Rational: Members are provided with links to dance-related websites.
Specifics: Once logged into the system, the member clicks on the Dance link and is directed to the Salsa Beginners section. From there on the user can choose a different genre and click on the Resources link to view dance-related websites.
VPs: Members
Non-functional Requirements: None
Provider: Alex Morel


Reference: Non-Members
Attributes: None
Events: click "become a member" link
click submit button
click preview link
Enter user info, login ID and password
Services: Registration
Preview Videos
Sub-VP's: None
Reference: Registration
Rational: Users that would like to register for membership can click on Become a Member.
Specifics: From the main page, a non-member can register for membership by clicking on the Become a Member link. This will direct them to a registration form in which they will enter their information in addition to a user name and password.
VPs: Non-members
Non-functional Requirements: user name must not contain vulgar/ unacceptable language (i.e. profanity)
Provider: Alex Morel
Reference: Non-Members
Attributes: None
Events: click "become a member" link
click submit button
click preview link
Enter user info, login ID and password
Services: Registration
Preview Videos
Sub-VP's: None
Reference: Preview Videos
Rational: Non-members can view only preview videos.
Specifics: From the main page, the user can click on the Preview link, which directs them to a page where the video is located. In addition to the video itself, written descriptions of the moves are also included in this page.
VPs: Non-members
Non-functional Requirements: None
Provider: Geoconda Idrovo


Reference: Users
Attributes: UserID
Name
Email
Password
Payment method
Events: Click "Contact Us" link
Click send button
Click "FAQs" link
Click "The Team" link
Services: E-mail Administrator
View Team Bios
View FAQ's
Sub-VP's: Members and
Non-members
Reference: Email Administrator
Rational: Any questions, comments or concerns that users may have can be directed to the website administrator via email sent from the contact page.
Specifics: A user can click on the Contact US link located on the main page and then enter their name, email and message and click the submit button to send their message to the administrator via the email system within SalsaPartyWalk.com.
VPs: Users
Non-functional Requirements: None
Provider: Geoconda Idrovo
Reference: Users
Attributes: UserID
Name
Email
Password
Payment method
Events: Click "Contact Us" link
Click send button
Click "FAQs" link
Click "The Team" link
Services: E-mail Administrator
View Team Bios
View FAQ's
Sub-VP's: Members and
Non-members
Reference: View Team Bios
Rational: Users are able to view each team member's biography and picture.
Specifics: From the main page the user can click on The Team link. From there, the user will be directed to another section of the website in which the team biographies and pictures will be displayed.
VPs: Users
Non-functional Requirements: None
Provider: Geoconda Idrovo


Reference: Users
Attributes: UserID
Name
Email
Password
Payment method
Events: Click "Contact Us" link
Click send button
Click "FAQs" link
Click "The Team" link
Services: E-mail Administrator
View Team Bios
View FAQ's
Sub-VP's: Members and
Non-members
Reference: View Frequently Asked Questions
Rational: Members have access to a section of the website that provides the answers to Frequently Asked Questions.
Specifics: From the main page pf the website the user clicks on the FAQ's link which directs them to the section of the website that displays questions and answers that common users have had.
VPs: Users
Non-functional Requirements: None
Provider: Alex Morel

1.3.2 Use Case Scenario Diagram



1.3.3 Role Playing

Network Administrator

My name is Henry Pierre and I'm the Network administrator for SalsaPartyWalk.com. I have worked for various companies from middle to large size organizations. Based on my responsibilities, and the nature of this website I will manage all user emails, the message board, and support all daily business operations within the site.

One of my primary jobs is to respond to user emails and requests. Website users will use an online "Contact Form" to submit comments /questions or help tickets. A successful submission means that any particular user has entered their first and last name along with a valid e-mail address. Those validation tests need to be performed to ensure users getting a reply. However, without an e-mail/or valid one I won't be able to provide necessary support to such user.

Another job is to perform updates. Updates are vital to a website, because these keep users from coming back. Because of its importance, a process should be established to make updates go swiftly. Consequently, each section within the site should be properly documented and labeled to make navigation easy and locate any section within the site. This also requires properly labeling all site folders and files based on their section. Additionally, each section within the site should have a template that enables fast creation of new pages and promotes consistency. Beside each template, web page designers need to specify how to update any dynamic or static pages along with code documentations such as: table positions, table names, starting and ending code segments, etc.

I will also provide support for the Message board or Forum. Only registered users can post messages or reply to other users in the board. Login and passwords should be correctly set to keep one user from using another user name. The developer should prevent any user name duplication, and needs to set proper privileges for each user. For example, users won't be able to delete any posted messages. Finally, the board should be easy to manage to allow the administrator to remove messages, and perform some basic jobs.

Dancer

My name is Robert Edison and I have been a dance instructor for the past 12 years. As an instructor, I want to make sure that my students can clearly see my instructions online. One of the most important concepts that need to be emphasized when learning how to dance is hand positioning, posture, and footwork. These are all critical to any student that is trying to learn the basics. In order for them to learn how to dance through video, these concepts must be clearly seen and emphasized. Like any class of instruction, a student must be able to ask questions to the instructor. This is very important because any questions that there may be for an instructor can also benefit another student. This website must have a manner in which students can ask the instructor(s) questions and the ability for an instructor to provide answers. Another aspect of instruction that is vital for a dance is timing. The student should be able to clearly see where and when a step is carried out. Salsa for example, is based on an "8" count; if the video slows down or freezes while a move is being performed, then the count will be off leading to possible confusion for the student. This synchronization of steps with counts is extremely important. It is also important that viewing the videos of instruction is easy for the students. If it is difficult to view videos, a student will be frustrated, which in turn will make it harder for he/she to focus and learn the moves being taught. We want to make the use of videos an easy and simple process so that the majority of a person's energy can be directed towards leaning a move and practicing it on their own.

Front-End Developer

Hi my name is Joe Schmoe and I am the front-end developer of the site. I've worked on many sites throughout my years and the quality desired by most people is how fast the pages download. I definitely place emphasis on this when I'm developing pages or when I go to pages for that matter. I always find myself saving various files from web pages on my computer just to see the file size and to see if I could create an exact replica of the page, but of course with better optimization. Languages that I like to use include HTML and Javascript; they download at lightning speeds. My specialty is creating

interactive pages with the two. I focus on structure and usability to create well designed professional pages. Many people use pictures to spice up their pages but this only increases download time. I believe that once you have a well-structured site you should add a few pictures in key places. The pictures of course should be optimized for a 56k modem. This is what I want to incorporate in this website. Two new technologies that are definitely on the come up are XML and Flash. XML downloads just as fast as HTML and Flash drastically compresses interactive images making it just as fast to download a few images. I would definitely love to see these technologies used in the website. These are what I feel are necessary for me to carry out my role effectively.

Back-End Developer

Hi my name is Joe Schmoe and I am the front-end developer of the site. I've worked on many sites throughout my years and the quality desired by most people is how fast the pages download. I definitely place emphasis on this when I'm developing pages or when I go to pages for that matter. I always find myself saving various files from web pages on my computer just to see the file size and to see if I could create an exact replica of the page, but of course with better optimization. Languages that I like to use include HTML and Javascript; they download at lightning speeds. My specialty is creating interactive pages with the two. I focus on structure and usability to create well designed professional pages. Many people use pictures to spice up their pages but this only increases download time. I believe that once you have a well-structured site you should add a few pictures in key places. The pictures of course should be optimized for a 56k modem. This is what I want to incorporate in this website. Two new technologies that are definitely on the come up are XML and Flash. XML downloads just as fast as HTML and Flash drastically compresses interactive images making it just as fast to download a few images. I would definitely love to see these technologies used in the website. These are what I feel are necessary for me to carry out my role effectively.

Users

Users (16 to 18 years):

My name is Maribel Barrera and I am currently a junior at Essex County Technical Vocational High School; I'm in the Hair Beauty shop. My favorite hobbies are to shopping and dancing. In a dance instructional web site I would like to see the following things included: First of all I want an up do date web site, meaning something with a modern design and eye-catching pictures and colors. I would like the web site to be fast and easy to use since I don't have a lot of computer experience. The music played in the web site should be fresh and new (it should be the same as the music currently playing on the radio).

Users (19- 23 years):

My name is Jose Antonio Morel and I am 21 years old. I am currently a senior in college studying Computer Engineering. In a dance instructional web site my main concern would be the user friendliness of the web site because it is frustrating to go to websites that are hard to use. I would also be concerned with the download time and navigational system considering the site would have many downloadable videos. I would like a FAQ section and a site map that way if I get lost or confuse I can find an answer quickly. I would also like a way for me to contact the administrator in case I have any technical and non-technical questions. In addition to this I would like to be able to ask questions to the dance instructors, and also be able to see the questions asked by other users.

Users (24 to 27 years):

My name is Elvia Chiriboga, I am a 27-year-old single mother working as a nurse at the University Hospital in Newark New Jersey. In a dance instructional web site I would like to see videos that download fast and are very easy to follow. I get discouraged from going to sites that take forever to download. In addition, since I am a visual learner, I would like to see a written explanation of all the steps. Pictures breaking down the steps will also help me understand and therefore learn the moves faster. Additional resources such as links to other dance related web sites might also aid me while I try to learn the moves. Apart from the moves, the method of payment is an issue for me. I currently have bad credit and prefer to pay things either by check or money

order, therefore it will be beneficial to me if the web site can incorporate my needs of payment in its design.

Users (28 to 31 years):

My name is Alfonzo Lopez and I'm currently working as a financial advisor at Merck. The ideal type of website that I would like SalsaPartyWalk.com to be entails the following: I would like the site to be easy to navigate because this way I can find my way around without too much trouble. It should also be fancy, to keep me interested. It should also have different levels of dances for beginners, intermediate, and advanced users. It should have a variety of dance videos so that you have a choice of what you want to learn. These videos should have a minimal download time so that I don't have to wait too long. The login should be on the front page so it is easy to login. The web site should provide an online shop for purchases.

Users (32-39 years):

Hi! I'm Jimmy Jones working at first union bank as a manager in Edison, New Jersey. I would like the SalsaPartyWalk.com to be user friendly; it should be easy to navigate through each page. It should contain detailed instruction and should provide you step-by-step guidance. Once I log in to the website, it should give me the total access to the website. The lessons should be available to me at any time. It should provide me with some sort of messaging service where I am able to post any questions and have it answered. It should have dance help online, incase I need help with something.

Users (40 & above):

My name is Maya Jones and I'm 42 years old from Florida, currently working at a real estate firm in Miami. I would like to learn dance in my spare time. The SalsaPartyWalk.com website that I would like to see should have the following: It should provide me with a website map in case I get lost in the website. It should provide me with details on dances. It should provide me with highlights on the front page even before I login, so I know what is new on the website. The web site should be kept simple for any age group to navigate. I should be able to ask questions and should be able to reply to

them. It should have variety of dances, which should be starting from beginners to advance level. I should be able to view it as many times as I want.

1.3.4 Distributing Client Surveys

In order to produce an effective and successful website, information must be gathered from the potential users of the site. The client surveys that were distributed focused on three main points needed for our analysis:

- Determining the type of clients for DanceOnline.Com (User Profile)
- Determining what the clients wanted to see included in the website
- Determining the priorities – a balance between what is important to include in the website and what can be done given the available resources.

In creating the survey these three points were taken into account. Also, to assure that the responses given in the survey were accurate, the questions were kept concise. It was important to design questions that would be easy to understand and answer while still gathering requirements. A sample of the client survey that was distributed is provided below.

1.3.5 Sample Client Survey

1. Please circle one:
    a. Male
    b. Female

2. How old are you?
    a. 16 – 18 yrs
    b. 19 – 23 yrs
    c. 24- 27 yrs
    d. 28- 31 yrs
    e. 32- 40 yrs
    f. 41 and up

3. What is your occupation?
    a. None
    b. Student
    c. Factory or Non-Technical Job (no college education needed)
    d. Technical Position (2 years of college needed)
    e. Professional (4 or more years of college needed)

4. What is your approximate annual income:
    a. 0 <= Annual Income < 5,000
    b. 5,000 <= Annual Income < 10,000
    c. 10,000 <= Annual Income < 15,000
    d. 15,000 <= Annual Income < 20,000
    e. 20,000 <= Annual Income < 30,000
    f. 30,000 <= Annual Income < 40,000
    g. 40,000 <= Annual Income < 50,000
    h. 50,000 and above annually

5. At home, I have the following type of Internet connection
    a. 56k
    b. T1
    c. T3
    d. DSL
    e. Other

6. Which websites do you visit the most?

    a. _____

    b. _____

    c. _____

7. How often do you visit dance related websites?
    a. Never
    b. Seldom
    c. Frequently
    d. All the time

8. How would you rate your computer skills:
    a. Beginner
    b. Intermediate
    c. Advance

9. How often do you purchase online a month?
    a. Never
    b. Seldom
    c. Sometimes
    d. Frequently
    e. All the time

10. What do you appreciate the most about a website (navigation, graphics, colors, ease of use, etc)?

11. What do you least like in a website (poor colors, graphics, etc.)

12. For what purposes do you use the computer at home and at work?

13. Which features would you find most useful?
    a. Message board
    b. Chat room
    c. Links to other dance related sites
    d. None
    e. All

14. Comments or reasons to question 14?

1.3.6 Results Charts

Table B: Age Groups

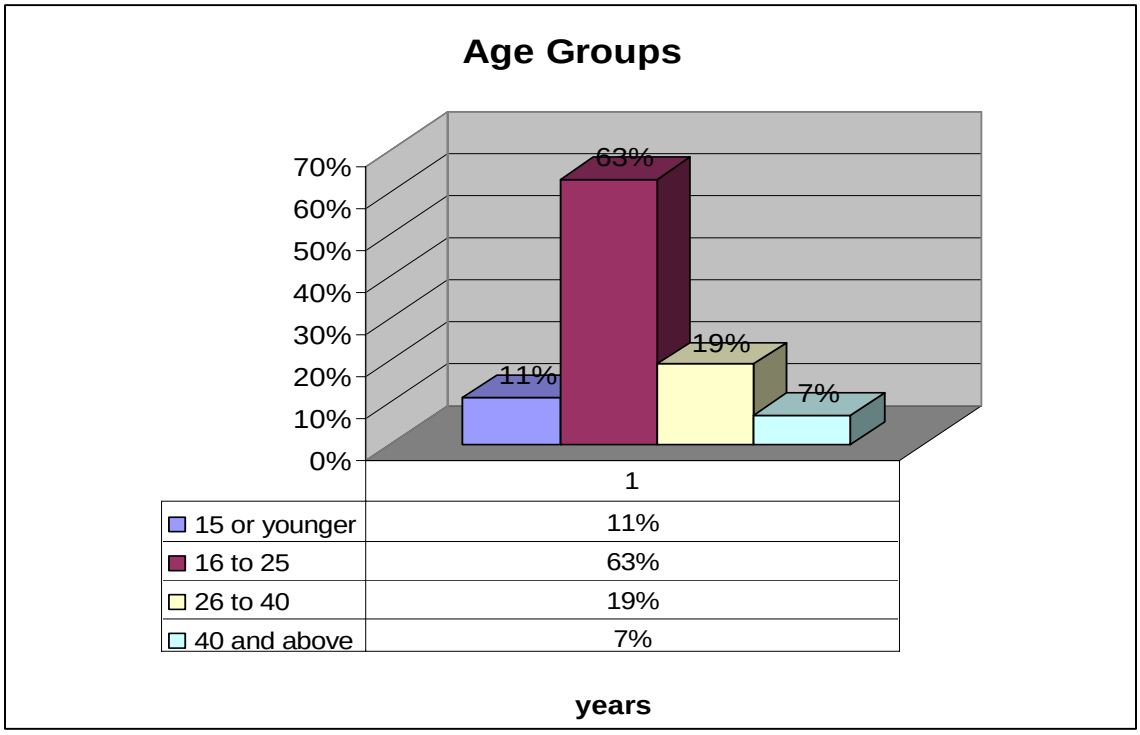


Table C: Internet Connection

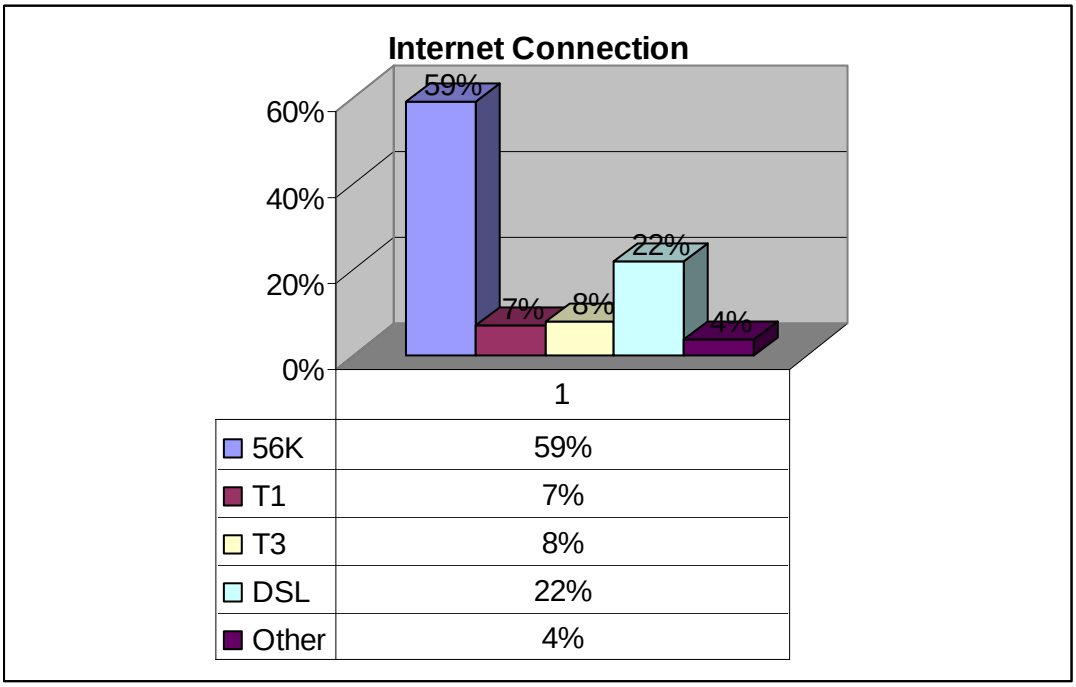


Table D: Online Experience

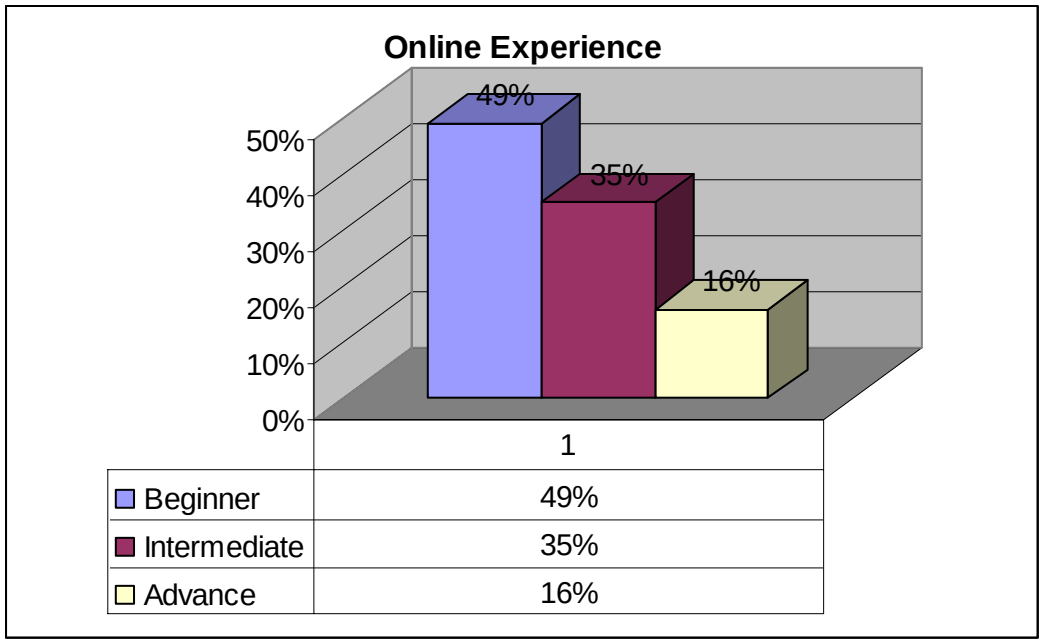
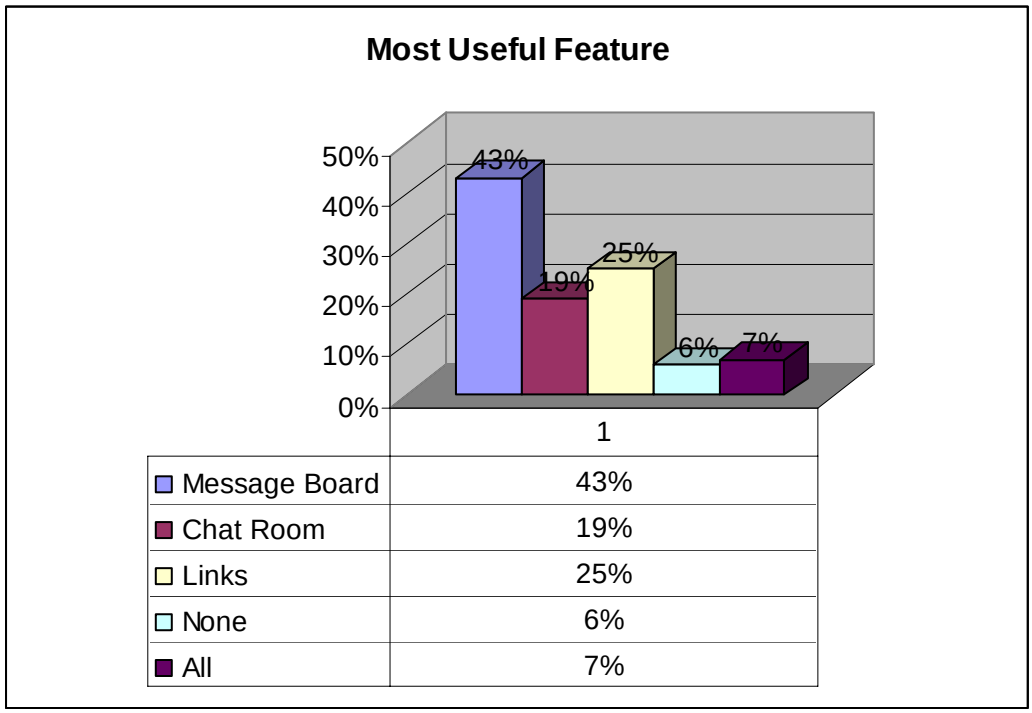


Table E: Most Useful Feature



1.3.7 Interviews

Considering SalsaPartyWalk.com is client-driven, gathering requirements for the project is crucial. In addition to questionnaires, thirty interviews were also performed to better further gather information.

Interviewer: Hi, my name is *(interviewer name)* and I'm working on a website with a team of five other students for our Senior Project. We wanted to take the time out and get some feedback from the potential users of our website.

Please state your name, age and occupation.

1) How familiar would you say you are with computers?
2) What type of connection is your computer running on?
3) How often do you shop online?
4) Based on your experience with online shopping, what key factors do you feel are needed in a good web page?
5) How important is color in terms of web page design for you?
6) In dealing with online dance instruction, what features do you feel will be most important to you?

1.3.8 Requirement Results

After analyzing the interviews and role plays the following requirements were extracted:

Dancers

1. Clearly see instructions online
2. Hand positioning footwork emphasized
3. Students must be able to ask questions
4. Timing of the steps, music with the movements
5. Videos should be easy to use

Front-End

1. Fast downloads
2. HTML & Java script (download time)
3. Few Pictures (maintain speed)
4. Well –structured
5. Videos optimized for 56k modem
6. XML & Flash (speed)

Back-End

1. ASP for security reasons
2. Log in / Log out functional for access of the website (rights)
3. Shopping cart for videos
4. ASP Host (must be fast and reliable)

Users (16-18)

1. Up to date (fresh look, attractive pictures and colors)
2. Fast and easy to use
3. New music

Users (19-23)

1. User-friendly
2. Download time kept to minimum
3. Good navigation
4. Frequently Asked Questions
5. Contact Page included
6. Message board included

Users (24-27)

1. Download videos fast
2. Instruction must be easy to follow
3. Step-by-Step explanation of moves
4. Still frames of moves included
5. Dance related Links included
6. Various payment methods (money orders, credit cards, checks)

Users (28 to 31 years)

1. Easy to navigate
2. Good layout and color usage
3. Minimal download time
4. Different levels of instruction within each genre (Beginner, Intermediate, Advance)
5. Area for shopping (shopping cart for DVD)

Users (32-39 years)

1. User friendly
2. Easy navigation
3. Step-by-Step instruction
4. Messaging service (Message Board)
5. Complete access to site for members

Users (40 & up)

1. Site Map
2. Details on dances (Move descriptions)
3. Highlights of the website

Admin

1. Valid input of users email address on contact page
2. Naming convention for videos and other files
3. Admin must be able to modify Message board (add/delete messages)
4. No duplicate user id’s

1.4 Analyzing Requirements

1.4.1 Who's coming to the Site (User Profile)

A client survey was created and distributed in order to obtain ideas and suggestions from everyday users. In addition to gathering requirements and features for the website, this survey also enabled the team to determine what types of users will be visiting DanceOnline.Com. After all of the 100 surveys were collected the following observations were concluded. The typical user is a male or a female between the ages of 16 and 25. They are moderately educated with a beginner to intermediate computer knowledge. Computer use ranges between 4 to 5 times per week on average with a 56k modem connection at home. The typical user is also a student or a blue-collar employee. Some of the users' favorite sites include:

- www.blackplanet.com
- www.migente.com
- www.yahoo.com
- www.ebay.com

A user profile is extremely important in the analysis phase because before the website is created, there must be a clear understanding of who the website is for and what is expected of the website. DanceOnline.Com must therefore be able to cater to customer needs since it is being designed for the users themselves.

1.4.2. Determining Primary Objectives

After a careful analysis of the client surveys the following primary objectives were determined:

- **Download time (56k):** The client surveys support the idea that video downloads must be a quick and easy. This is primarily based on the fact that most users accessing the website from home run on a 56k modem. Therefore the goal is to minimize download time by vectorizing the original recorded videos.
- **Increase traffic:** Getting users to visit our website is another primary objective. This is a way to measure how successful the website is. The more people that visit the website, the better.
- **Colors and organizational layout:** For better usability and design the website should have attractive colors and an effective organizational layout.

  Organizational layout also includes easy navigation. Based on the survey conducted the users of DanceOnline.Com have beginning to intermediate computer knowledge. Once users visit the website, the goal is to have them return over and over again. This can be achieved by making the site easy to use.
- **Quality of videos:** Although the file sizes for the videos will be reduced, maintaining quality is a priority because the users need to be able to clearly see the dancers and the specific steps. The video quality has to be a priority because the videos are the backbone to the website.

1.4.3. Establishing Measurable Goals

The measurable goals for the DanceOnline.Com team are the following:

1. ***Establish a focus group for usability testing:*** This is how testing will be carried out
2. ***Encode video for 56k modem optimization:*** Since most users will be using a 56k modem, download time must be kept to a minimum.
3. ***Organizing videos by genre and level of expertise (beg, int. adv):*** This will allow users to choose which type of instruction they prefer.
4. ***Better advertising/Free of charge:*** Considering that the videos are free of charge once a user becomes a member will contribute to the site's success. If clients are satisfied they will spread the word.

1.4.4. Creating Usability Test Plan

1. Create a feedback form for the site with rating navigation, ease of use, color scheme, video quality and the like.
2. Create a focus group of five of the most typical users. The participant will navigate through the site completing predetermined tasks. The participant will then be observed by a moderator (Our specialist on Human Factors Engineering).

1.4.5. Creating a Quality Assurance Plan

- Making sure site doesn't break- Test site on various platforms, browsers, and versions
- Screen sizes (including screen resolutions)
- Specific test paths to see if the functionality involved will track any bugs
- Fix and restart

1.4.6. Creative Brief

The scope of the DanceOnline.Com project is to develop an instructional dance website. When a user accesses the website, he/she has an option of either previewing the website as a guest, or logging into the system if they are a member. As a guest the user has access to virtually all of the sections of the website (Contact Page, FAQ's, Team Bios, Preview Videos). The only section not accessible to the guest is the "Dances" area, which contains all of the instructional dance videos, written descriptions of the moves, and background information on the type of dance chosen. This area will also contain resources on dance related topics. In order to gain access to the "Dances" area, the user must register to become a member. This can be done by simply providing a username, password and email address via the online registration form.

Once a member the user is not solely restricted to the "Dances" area. The site will also provide a message board in which members can interact with not only each other but also the featured dancers. In addition, the member also has the option of purchasing the DanceOnline.Com DVD. This DVD will contain routines not included in the website as well as more advanced moves. This accommodates versatility in the sense that users have an option to view videos on their own television sets as opposed to online.

The website will take into account user requirements obtained from a client survey that was distributed in the planning phase. This survey aided in determining the features that needed to be included to meet user requirements. After analyzing the client surveys, it was essential to target the look of the videos towards a younger audience since the majority of the users will be between the ages of 16 and 25 years old (Table B). Another requirement is that the videos download with ease considering most of our users

work off a 56K modem (Table C). The computer knowledge of the users is limited to a beginner or intermediate level as shown in Table D. This means that the organizational layout as well as the functionality of the website has to be user friendly. The final requirement that was obtained from the survey was including the message board feature on the website. The survey asked users what feature would contribute most to a dance website: Message board, Chat room, Links to other dance-related sites, and either all or none of these features. Users agreed that a message board would be the most beneficial (as shown in Table E), because it would allow them to interact with dancers and other members. The advantage of this over a chat room is that comments, questions, and ideas remain posted on the site for reference.

1.4.7. Technical Brief

Several languages and software packages will be used to complete the project. Amongst them are HTML, XML, CSS, JavaScript, Actionscript, ASP, PHP, Wildform Flix, Adobe Photoshop, Macromedia Flash, and Macromedia Fireworks. The project will consist of two versions of the site – an all HTML site and a site that takes advantage of Flash Technology. HTML not only will be used for the layout of the all HTML site but also of the flash site. CSS and JavaScript techniques will be used to bring interactivity on the HTML site. XML will be used for easy updates of the Highlights page. Actionscript will be used to bring interactivity to flash. The project also will have a member login and shopping cart, which will be created in ASP. PHP is the language that we will create our message board in. Wildform Flix is a new technology that will aid us through the many vectorizations of videos that we need to include in the site. Adobe Photoshop and Macromedia Fireworks both have the power that we need to create, edit, and optimize our graphics for 56k.

1.5 Documenting Requirements

1.5.1 Requirements Definition

Requirements Definition

After listing all of the requirements extracted from interviews, role plays, and questionnaires, requirements have been categorized as functional or non-functional as listed below.

1.5.1.1 Functional Requirements

- The website must include a *Message Board.*
- The website must contain an *Authentication System.*
- The website must contain a *Shopping Cart.*
- The website must contain a *Frequently Asked Questions* section.
- The website must contain a *Contact Page.*
- The website must contain a *History Page* for each genre of music.
- The website must contain an electronic *Registration Form.*
- The website must contain a *Printable Order Form.*
- The website must provide *Written Explanation of Moves* along with *Still Frames.*
- The website must contain a *Team Bios* section.
- The website must provide *Dance-related Links.*
- The website must contain a *Site Map.*
- The website must be created using *ASP* for website security.
- The website must contain an *Email Validation System.*
- The website *Administrator* must be able to *filter messages* from the Message Board.
- Only *Major Credit Card Companies* will be accepted (MasterCard, Visa, American express) for purchasing the DVD.
- Only a R*egistered Member* can purchase using a valid debit/credit card.
- New customers are *required to register* by creating a new account.
- During the registration process users are required to enter their: *name, user ID, password (2 times) and email address.*
- The website must provide *Notification of Incomplete Registration.*
- Non-registered users will only be able to view *Sample Videos*, the *Contact Page*, and the *Team Bios.*
- The user's first and last name must have a *maximum length* of 20 alphanumeric characters.
- The *User ID* and *Password* must both be alphanumeric characters and 12 characters long.

- The user's *E-mail address* must be alphanumeric with a *maximum length of 30 characters.*
- No two *users with the same user name* can log into the registered area of the website.
- Only *registered users* can download videos, purchase the DVD, and access additional resources.
- Registered users can fill out a *printable order form.*

1.5.1.2 Non-Functional

- The website must provide *Clear Video Images.*
- Both *footwork and hand-positioning* have to be emphasized within each video.
- The *videos* provided on the website must be *easy to use.*
- The developers must be able to reduce *download time for the videos.*
- *HTML, Javascript, Flash, and XML* must be used to reduce download time (of web page).
- The developers must be able to reduce download time of page by avoiding *excessive use of pictures* (graphics).
- The website must contain a *good organizational layout* as well as *good navigation.*
- The *ASP host* that is used for the development of the website must be *fast and reliable.*
- The website must incorporate a *fresh look* utilizing pictures, colors, and up-to-date music.
- The website's teaching approach must *accommodate different learning styles.*
- The website *must accommodate various forms of payment.*
- The moves provided on the site must be broken down into respective *levels of expertise* (e.g. Beginners, Intermediate, Advanced).
- The website must contain *highlights of upcoming events and updates* of the website.
- The developers must incorporate a *naming convention for file names.*

1.5.2 Requirements Specifications

1.5.2.1 Functional Requirements

***1- System Content Requirements*:** These requirements outline the necessary components of the system.

- Must contain videos – A main function of the site is to provide dance instruction through vectorized downloadable videos.

- Written explanation of moves along with pictures – In order to efficiently teach dance over the web, users need still frames of the moves on the video accompanied by written descriptions of the moves.

- Must contain Registration Form – A registration form on the website is need in order for a user to become sign up for membership. This electronic form requires the user to enter the appropriate information needed for membership.

- Must contain a Frequently Asked Questions section – To better aid users with any questions or concerns they may encounter while using SalaPartyWalk.com, a FAQ section needs to be incorporated. This section provides questions other users had in the past along with the respective answers

- Must contain a Contact Page - A contact page is needed so that users are able to reach the website administrator if any questions, comments, or concerns need to be addressed.

- Must contain a History Page - A history page will allow members to read background information on a particular genre of music, before even learning how it is danced. The history page provides a brief explanation of the dance's origin and development.

- Must contain a shopping cart – A shopping cart will enable a user to select the item(s) they wish to purchase (in this case a DVD) and store it until they are ready to check-out or proceed with the final purchasing.

- Must contain an Electronic Order Form – If a member would like to purchase the SalsaPartyWalk.com DVD, he/she needs to fill out a form providing required information for payment processing.

- Must contain a Printable Order Form – If a member would like to mail in a hard copy of the order form along with a cash or money order payment, they can do so with this form

- Must contain a team Bios section – This section is required because it is where the people responsible for creating the website get an opportunity to introduce

themselves to their customers. A brief biography on each person allows users to meet the crew.

- Must include Dance-related Links – Additional resources for users are a requirement. This allows them to expand their experience by learning more about the music and the dancing with the aid of other websites.

- Must contain a Message Board – The message board will allow users to interact with not only each other but also with the dancers.

- Must contain a Site Map -

2- Registration Requirements: These requirements outline the registration requirements from both a user and system standpoint.

- In order to access any of the member sections of the web page a user must register for membership.
    - Membership includes access to videos, written move descriptions, history section, dance-related links, and "Purchase DVD" section.

- No two users with the same user name can log into the registered area.

- During the registration process users must provide their name, user ID, password (twice), and email address

- User must be notified if registration is not completed properly.

- User last and first name must not exceed a length of 20 characters in addition to being alphanumeric.

- The User ID and Password must also be alphanumeric and 12 characters in length.

- Email address should be alphanumeric and have a max length of 30 characters.

3- Purchasing the DVD: These requirements outline the process for purchasing the DVD.

- Only a registered member can access this area to purchase a DVD.

- Registered members must fill out an online order form in order to purchase the DVD online.

- Registered members must provide valid credit or debit card information in the fields provided when using the online order form.

- Only major credit card companies will be accepted if purchasing the DVD online (MasterCard, Visa, American express).

- Registered members also have the option of mailing in a printable order form if they do not wish to purchase over the web.

- Registered members can mail in a cash or money order payment.

4- Access Rights: These requirements outline what actions a given user can perform depending on their membership status.

- Non-registered users will only be able to view sample videos, the "Contact Us" page, and the "Team Bios" sections.

- Only registered members can download videos under "Dances", purchase the DVD, and access the additional resources (links) on the website in addition to all other areas of the website.

5- Website Security: These requirements outline the security standpoint of the website.

- The website must contain an authentication system so that duplicate emails or names are not permitted. This ensures that user information is kept safe.

- Using ASP coding will be a requirement so that the website security is maintained.

- An Email Validation System will be used to assure that proper emails are being used. This will avoid any future conflicts if users need to be reached for any reason.

1.5.2.2 Non-functional Requirements

1- Ease of use:

The system should be easy to use, the user should be able to load up the web page and basically know how to work the system from just viewing it. There should be no vagueness of the inner workings of the system. The navigation of the system should be very clean and straightforward.

2- Speed:

(Speed of Web page): The speed of the system should be high regardless of the end user connection. This means that the system will use HTML, Javascript, XML, and Flash to reduce the download time of the web page. Also reducing the amount of graphics can significantly alter the time the page takes to load. All of these features will ensure the system runs reasonably fast even on a dial up connection.

(Speed of videos): The videos on the website should not take too long to download because this can be very frustrating for the user. The videos will be optimized for the common connection (56k modem); vectorizing each individual video clip will do this. In addition to download time, the rate at which the video runs should be accurate considering dance counts and steps need to be synchronized.

3-Video Clarity:

In order for instruction to be efficient, the videos need to be clear enough for members to see each and every step being carried out by the dancers. This also entails having certain details enhanced in the video clips such as the hand positions and footwork.

4- Styles of learning;

Since different people have different learning curves, instruction should be able to accommodate these styles. The lessons should be decomposed into “Beginners”, “Intermediate”, and “Advanced” so users can choose where they want to begin and know exactly what moves they should be learning next.

5-Fresh Look;

Apart from looking attractive enough for the users to enjoy, the website should incorporate up-to-date music that would be appealing to the common user. In addition it should be able to use attractive pictures and colors to draw the user’s attention and keep them interested in the website.

6- Reliability:

The system should have a high reliability rate. This will consist of the system not crashing or behaving in an unwanted matter. The system will take this on by having a well-coded foundation and use high quality hardware. In addition a reliable ASP hosting system will be required.

7- Maintenance:

The system should be kept running and be well kept .A highly trained and trusted administrator will maintain the system. The administrator should be able to filter unwanted messages from the website's message board. The system should also be able to provide basic functionalities during the maintenance periods.

8- Update-ability/Modification:

The system needs to be easy to change and modify. The system should have the capability to grow. One of the requirements that will help satisfy this goal is using a consistent naming convention for all video files.

9-Payment methods:

To better accommodate user needs, the website should be able to provide more than one payment method. The payment type should not be restricted to credit card only as this may discourage the user from purchasing the SalaPartyWalk.com DVD.

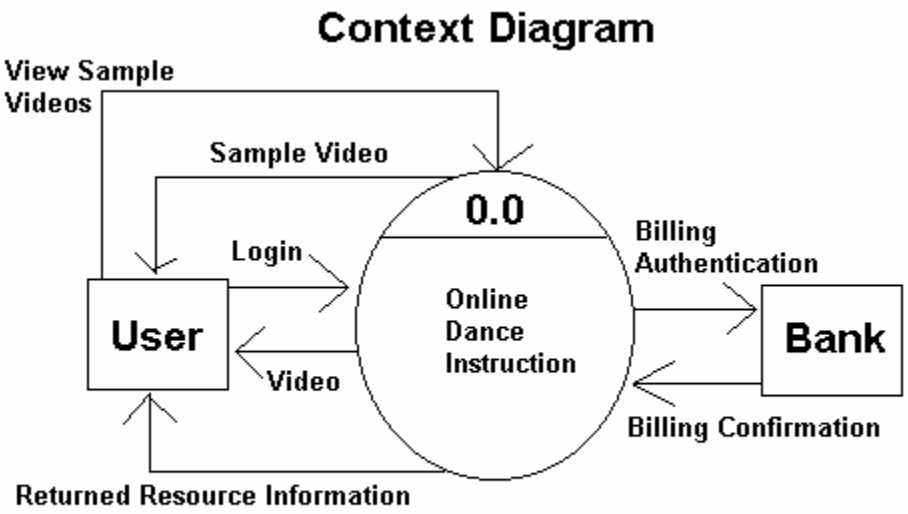
10-Highlights:

The highlights feature of the website should provide users with the most recent news and events that are going on in the dance world as well as on the website itself.

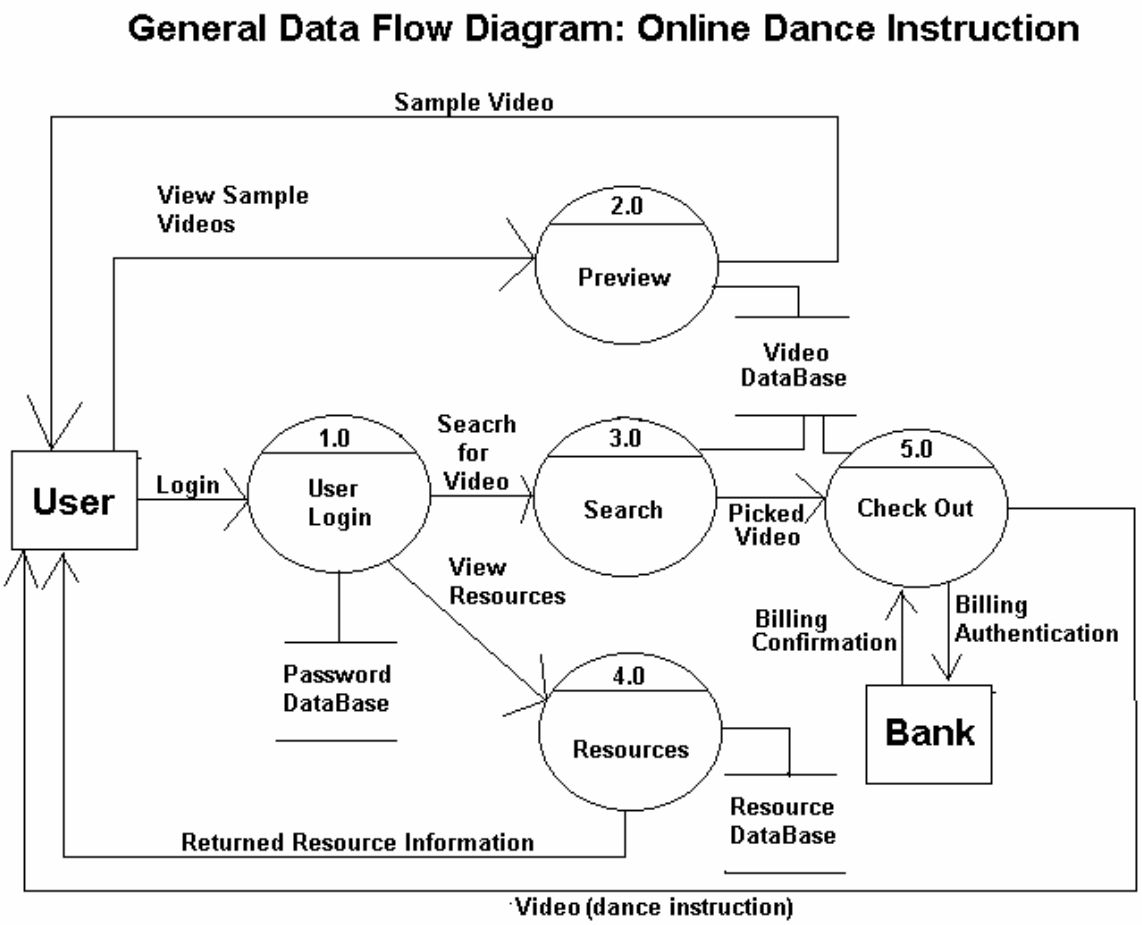
1.6 Modeling Requirements

1.6.1 As-Is Data Flow Diagrams (DFD)

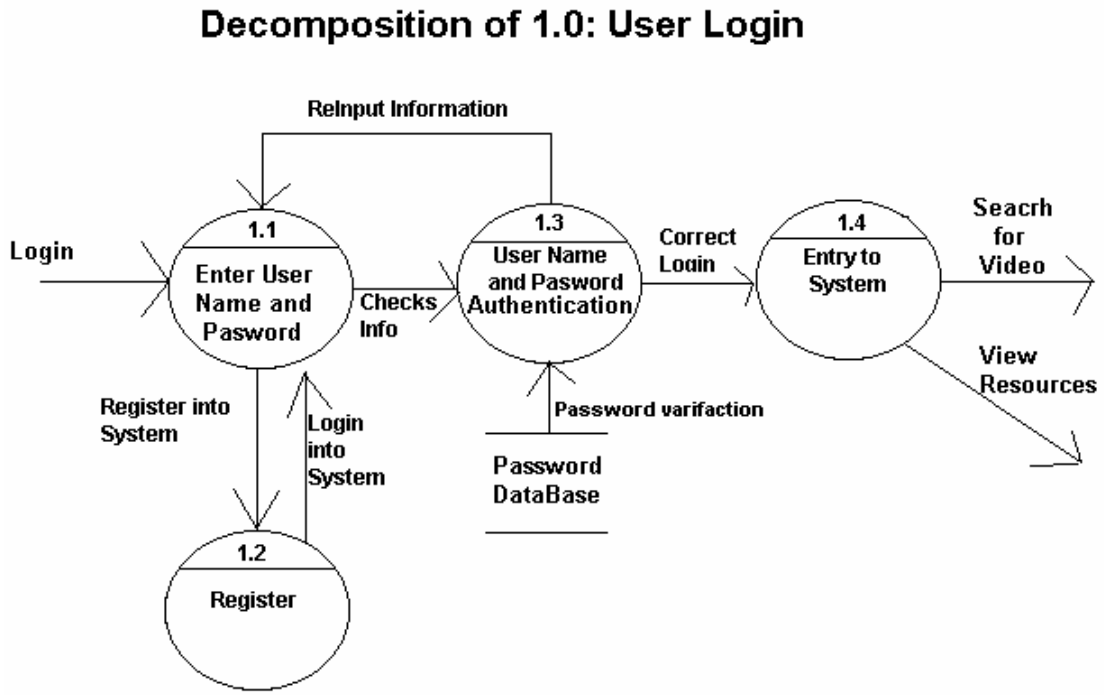
1.6.1.1 As-Is Context Diagram

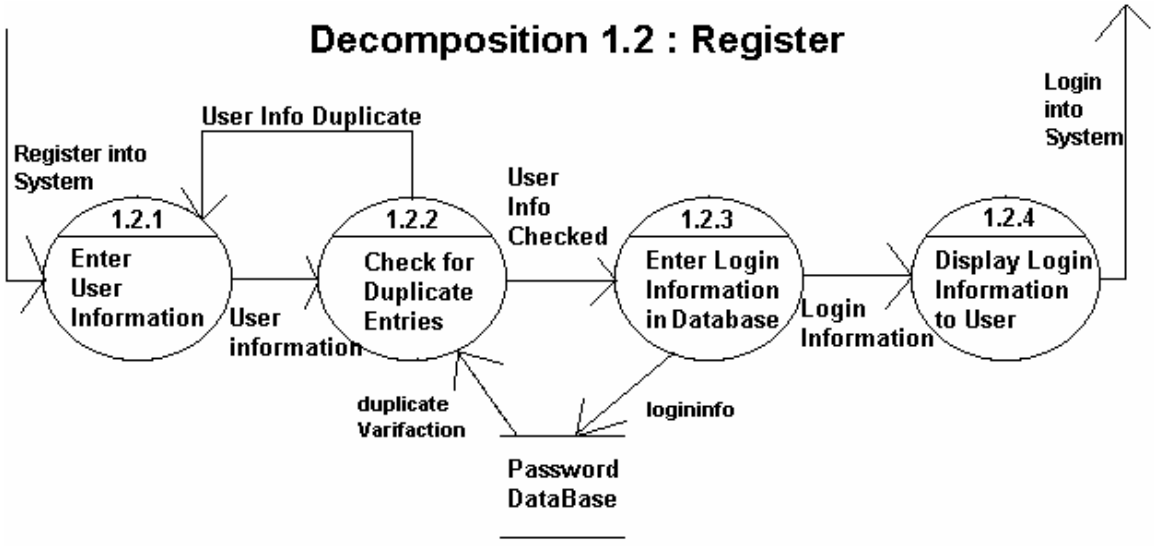


1.6.1.2 As-Is General DFD

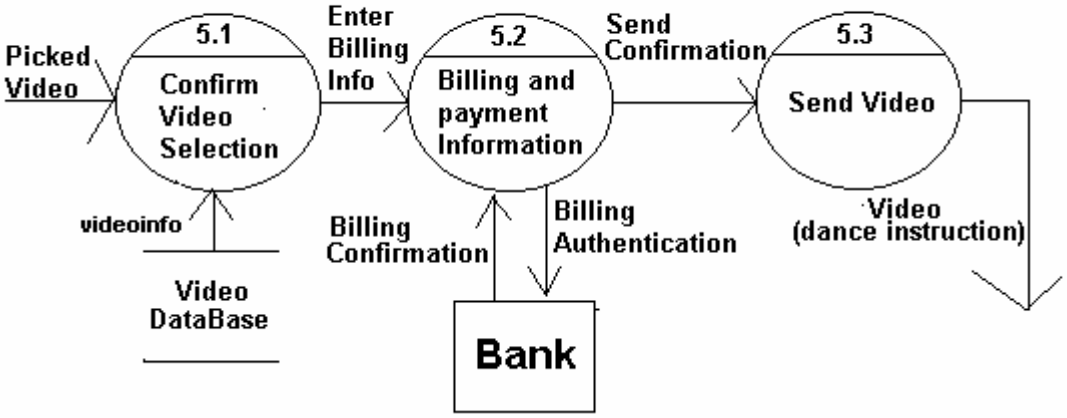


1.6.1.3. As-Is Decompositions

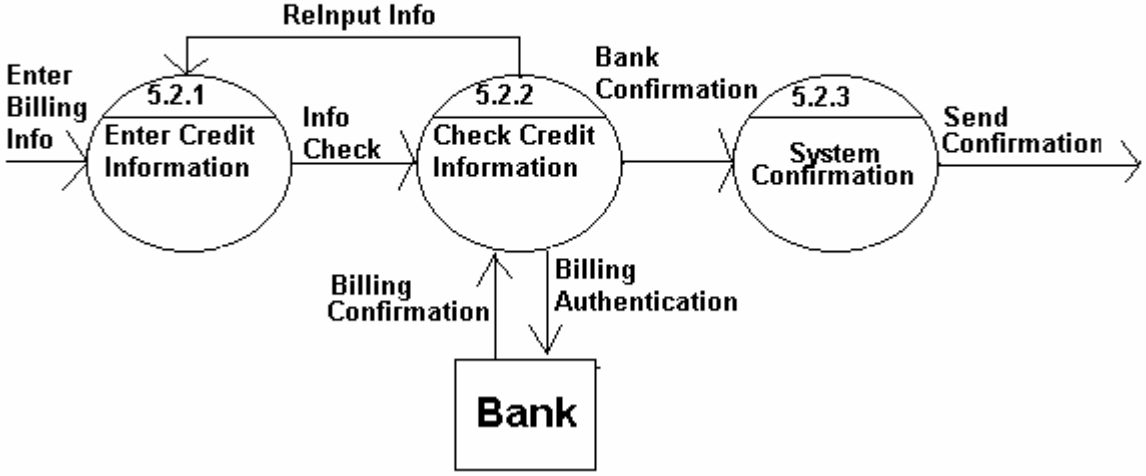




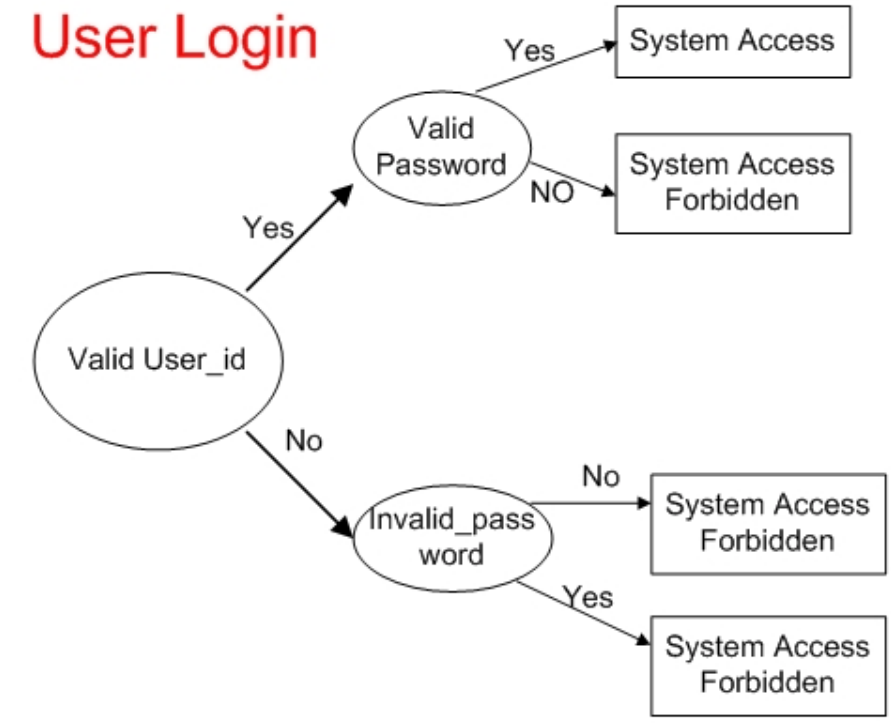
Decomposition 5.0: Check Out

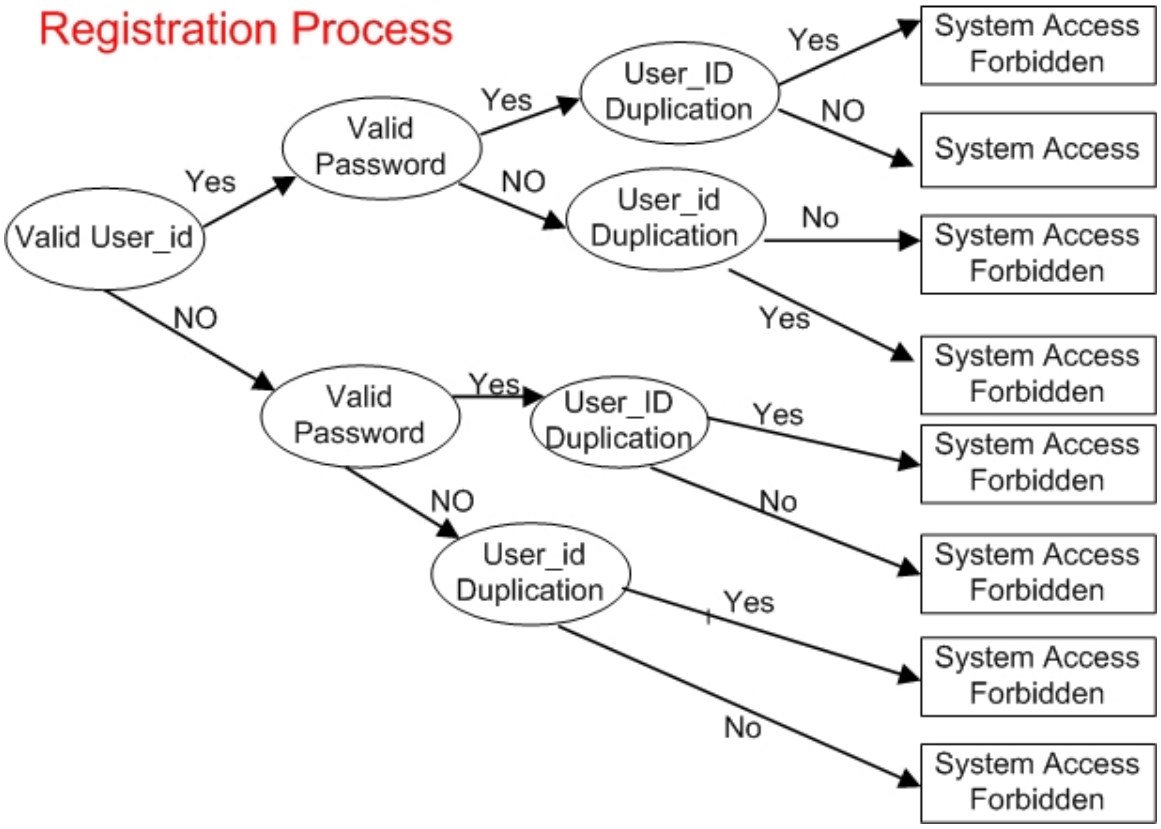


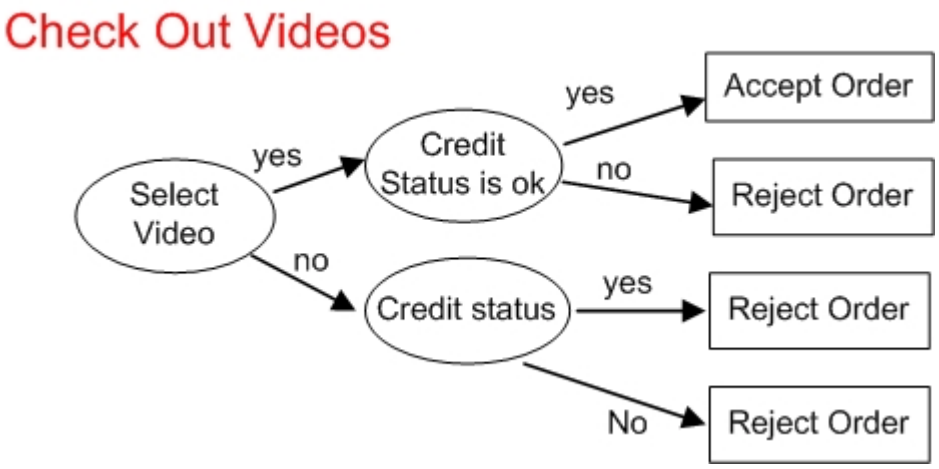
Decomposition 5.2: Billing and Payment Information



1.6.2 As-Is Decision Trees






Check Out Videos
Select Video
yes
Credit Status is ok
yes
Accept Order
no
Reject Order
no
Credit status
yes
Reject Order
No
Reject Order

1.6.3 As-Is Decision Tables

User Login				
Condition	1	2	3	4
Valid User ID	Y	Y	N	N
Valid Password	Y	N	Y	N
Action				
Entry to System	X			
Forbidden Entry		X	X	X

Registration Process								
Condition	1	2	3	4	5	6	7	8
Valid User Id	Y	Y	Y	Y	N	N	N	N
Valid Password	Y	Y	N	N	Y	Y	N	N
User ID_Duplication	Y	N	Y	N	Y	N	Y	N
Action								
Entry to system		X						
Forbidden Entry	X		X	X	X	X	X	X

Check Out Process								
Condition	1	2	3	4				
Select Video	Y	Y	N	N				
Credit Status is Ok	Y	N	Y	N				
Action								
Accept Order	X							
Reject Order		X	X	X				

1.6.4 As-Is Structured English

Process 1.0: User Login

```
If User
        ENTER Username and Password
                VERIFY Username and Password against Database
                        IF Username and Password Match
                        THEN Login into System
                                ELSE
                                        ENTER Username and Password
        ELSE Register
```

Process 1.2: Register

```
ENTER User Information
        VERIFY Username against Database
                IF Username is Unique
                THEN Enter Information into Database
                                DISPLAY User Information
                        ELSE
                                ENTER User Information
```

Process 5.0: Check Out

```
DISPLAY Video Information
ENTER Billing and Payment Information
        VERIFY Billing and Payment Information
                IF Bank Confirms
                THEN Send Confirmation
                                THEN Send Video
```

Process 5.2: Billing and Payment Information

```
ENTER Credit Information
        VERFIY Credit Information
                IF Bank Confirms
                THEN Send confirmation
                        ELSE
                                ENTER Credit Information
```

1.6.5 As-Is Data Dictionary

User-Data	Name + Username + Password + Address + Phone-Number + Credit
Name	First-Name + Last-Name
Address	House-Number + Street-Name + City + State + Zip-Code
Phone-Number	Area-Code + Number
Credit	Card-Company + Card-Number + Expiration-Date + Card-Holders-Name
Card-Holders-Name	Card-Fist-name + Card-Last-Name
Card-Company	{[A|B|C|…|a|b|c|…]}
Card-Number	{[0|1|2|…|-|]}
Expiration-Date	{[0|1|2|…|\/|]}
Card-First-Name	{[A|B|C|…|a|b|c|…]}
Card-Last-Name	{[A|B|C|…|a|b|c|…]}
First-Name	{[A|B|C|…|a|b|c|…]}
Last-Name	{[A|B|C|…|a|b|c|…]}
House-Number	{[0|1|2|…|A|B|C|…|a|b|c|…]}
Street-Name	{[A|B|C|…|a|b|c|…|0|1|2|…]}
City	{[A|B|C|…|a|b|c|…]}
State	{[A|B|C|…|a|b|c|…]}
Zip-Code	{[0|1|2|…]}
Area-Code	{[0|1|2|…]}
Number	{[0|1|2|…]}
Password	{[A|B|C|…|a|b|c|…|0|1|2|…]}
User-Name	{[A|B|C|…|a|b|c|…|0|1|2|…]}

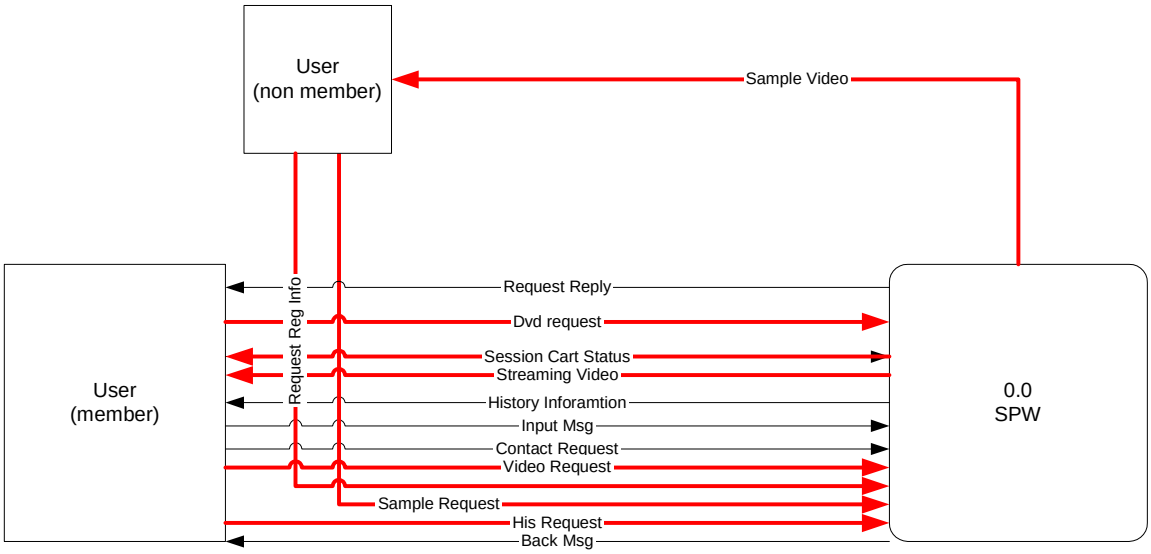
Video-Data	Video-Id + Video-Name + Price + Date
Video-Id	{[0|1|2|…]}
Video-Name	{[A|B|C|…|a|b|c|…]}
Price	{[0|1|2|…]}
Date	{[0|1|2|…|\/|]}

Phase IV- Design

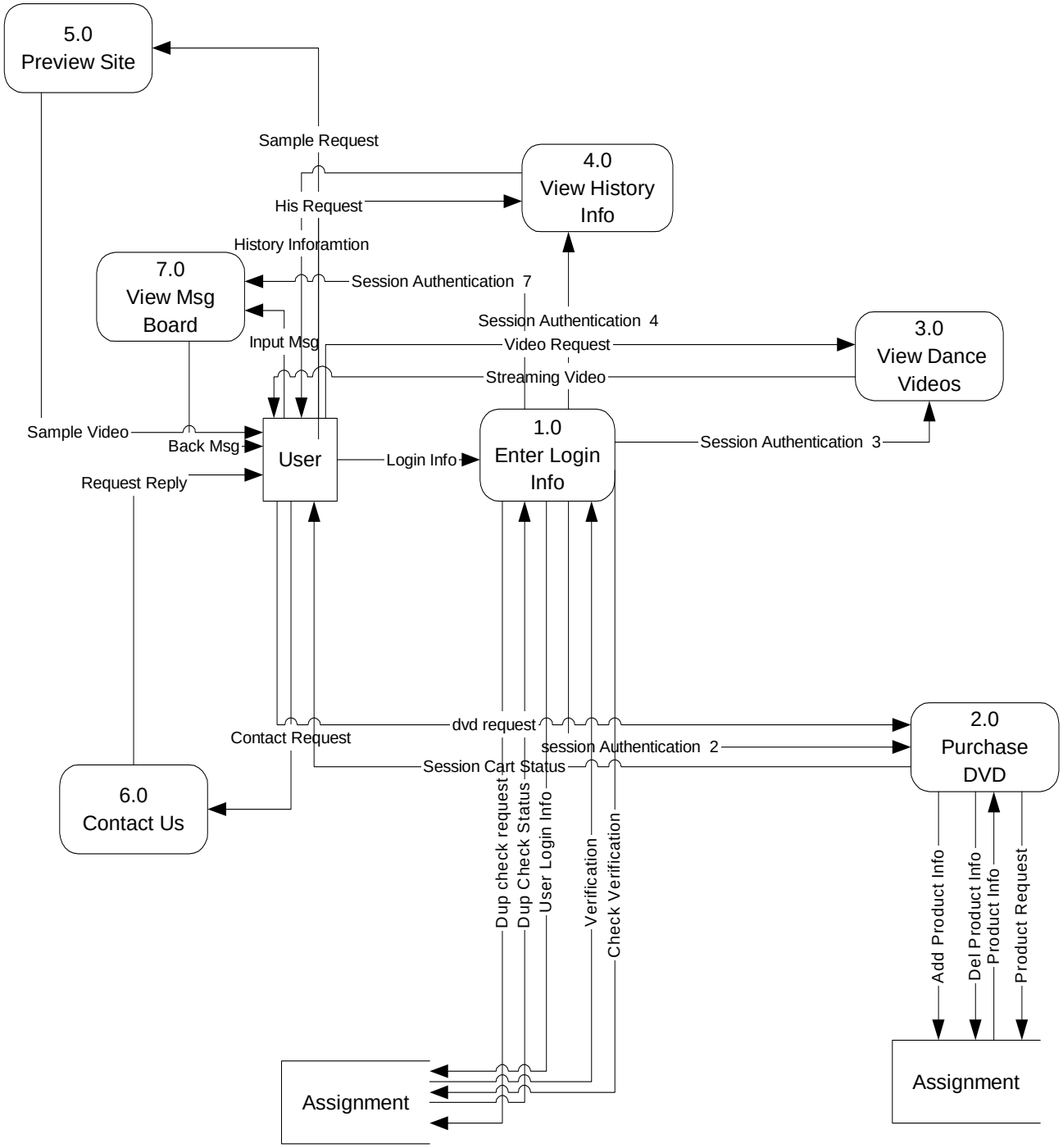
1. Modular Decomposition

1.1 To – Be Data Flow Diagrams (DFD)

1.1.1 To-Be Context Diagram

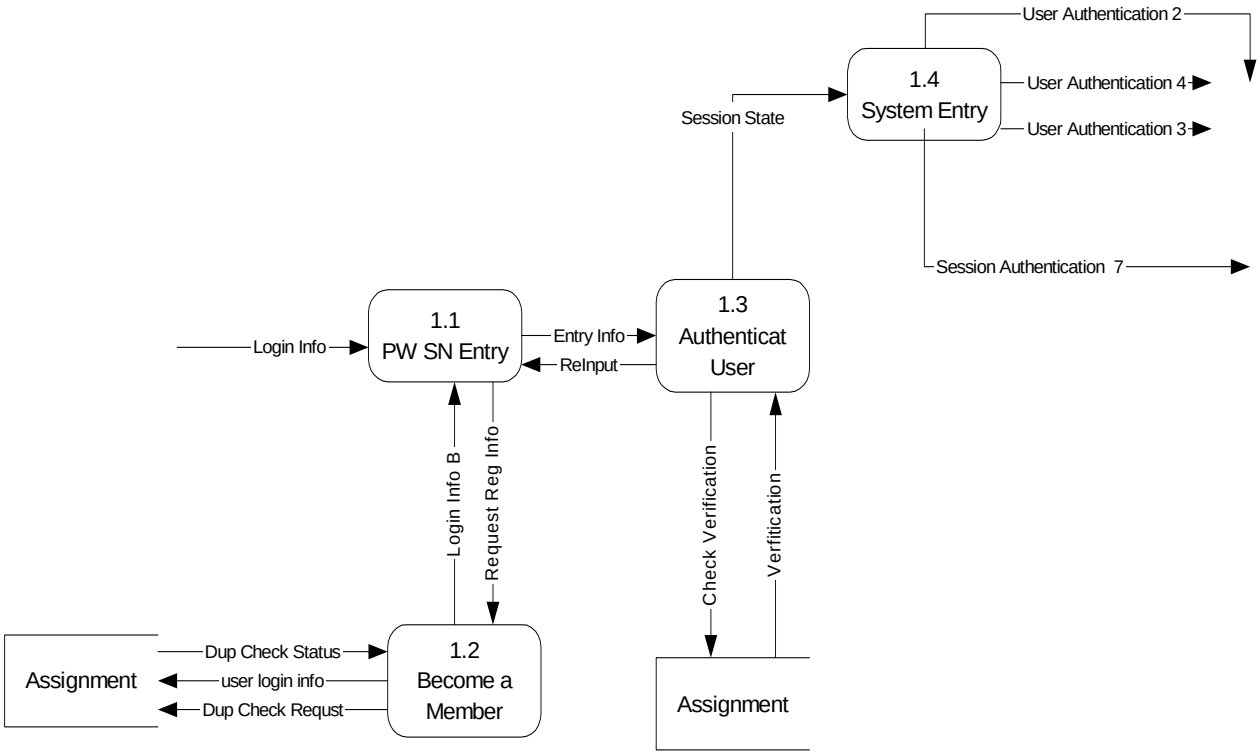


1.1.2 To-Be General DFD

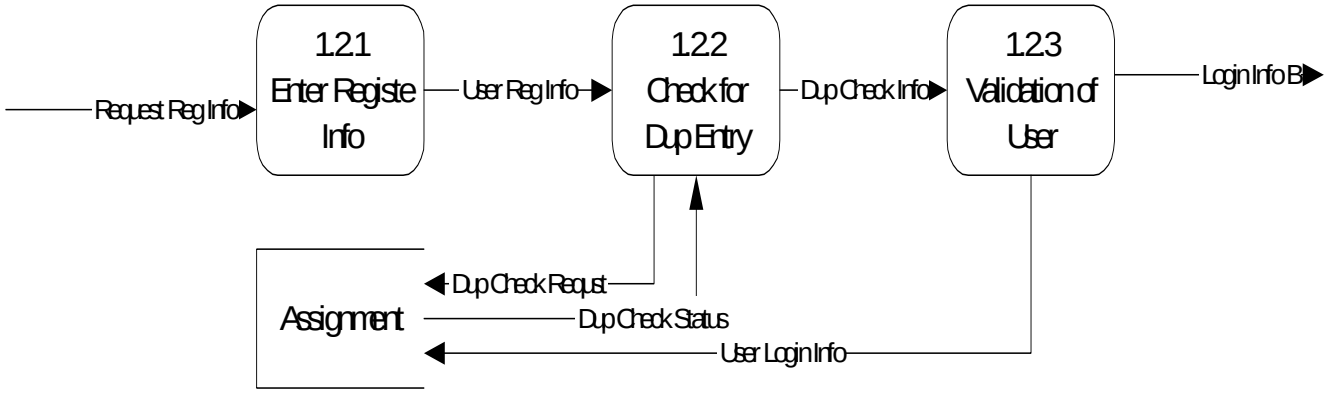


1.1.3 To-Be Decompositions

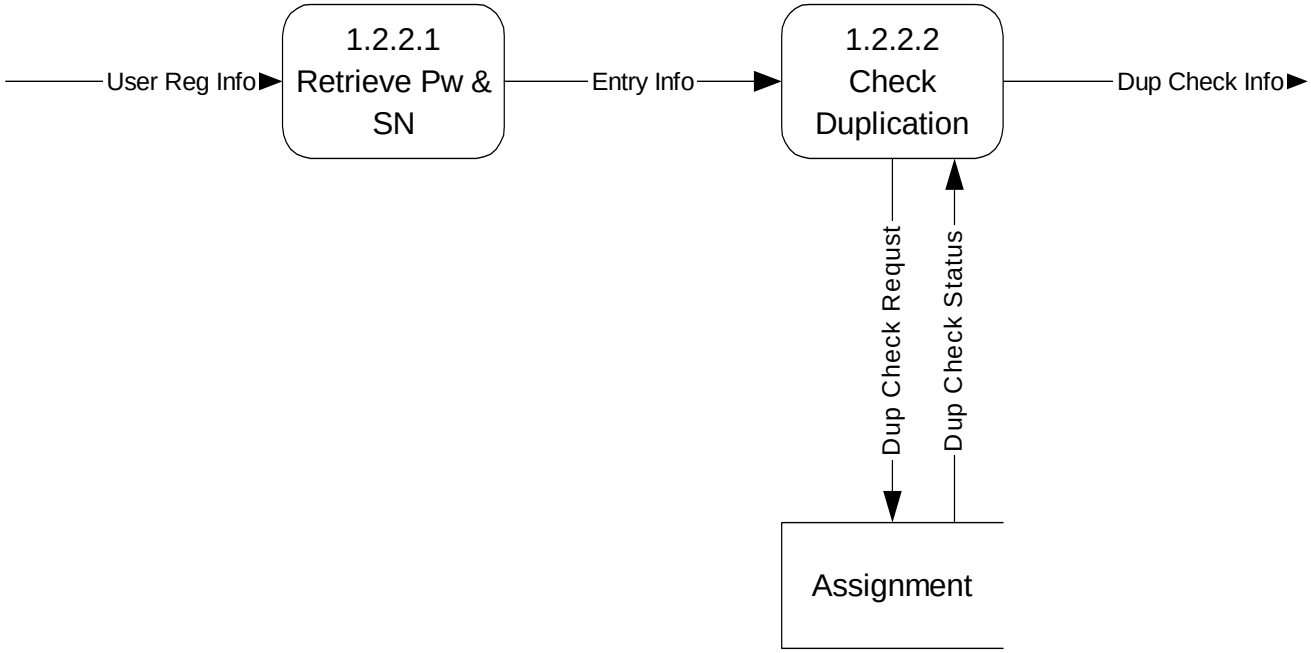
Enter Log In Info (1)



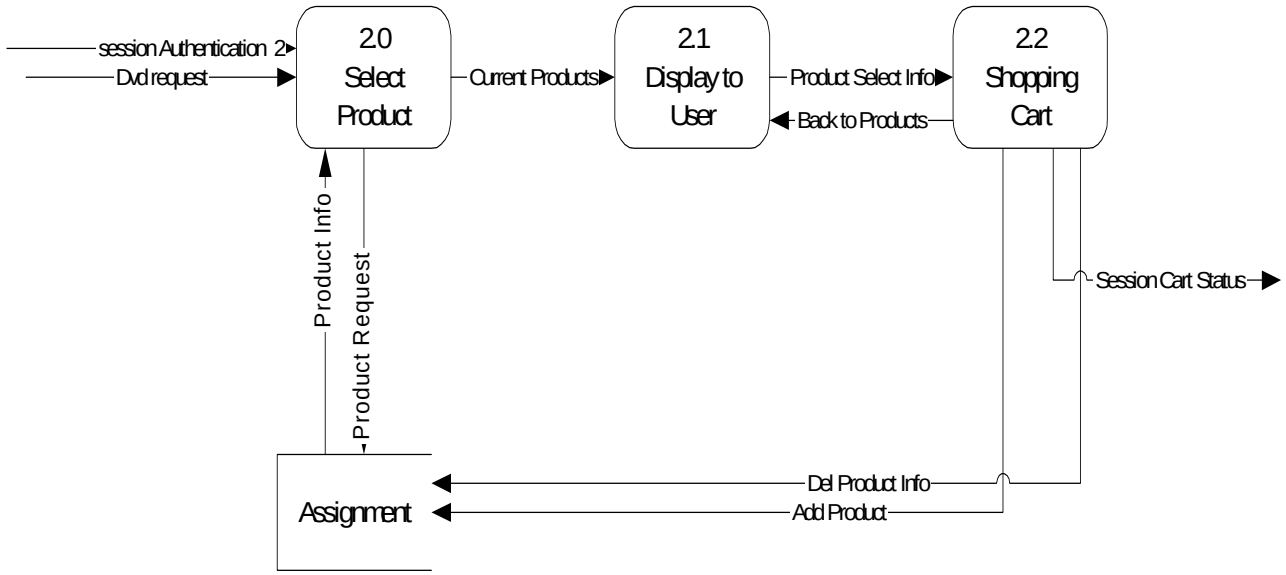
Become a Member (2)



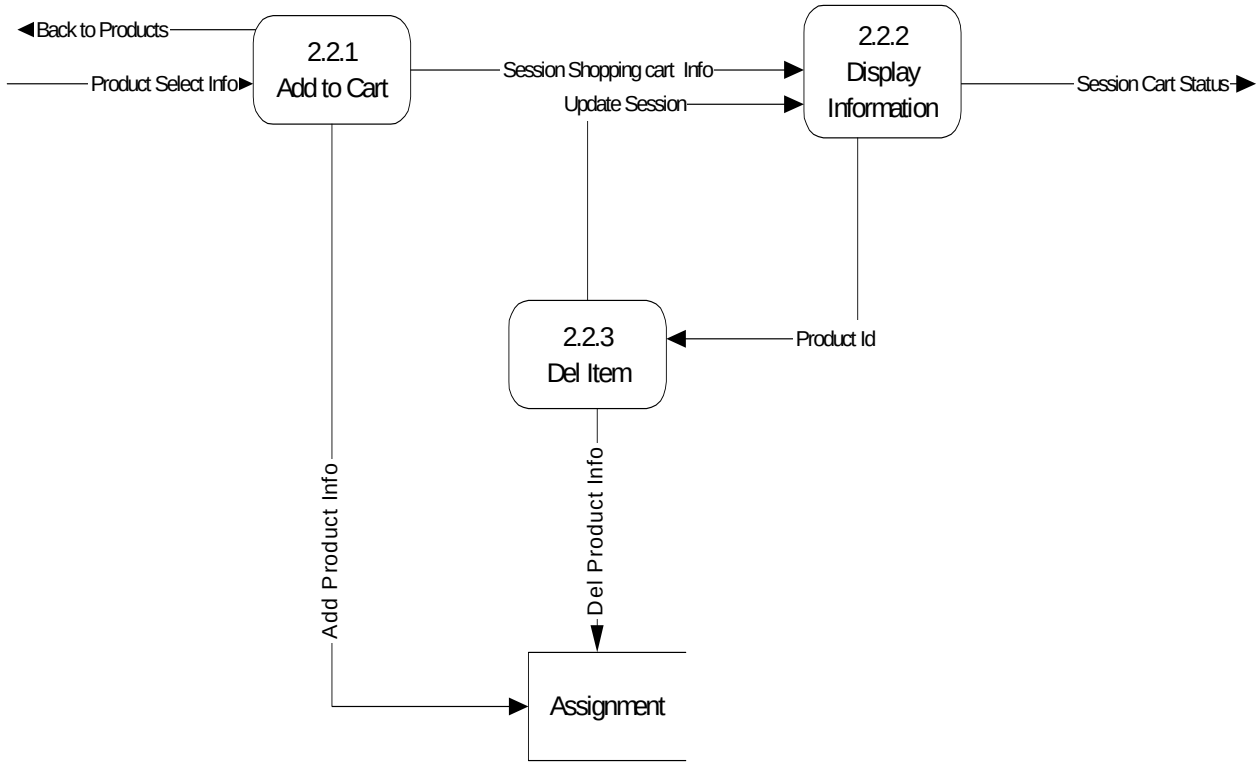
Check For Duplicate Entry (3)



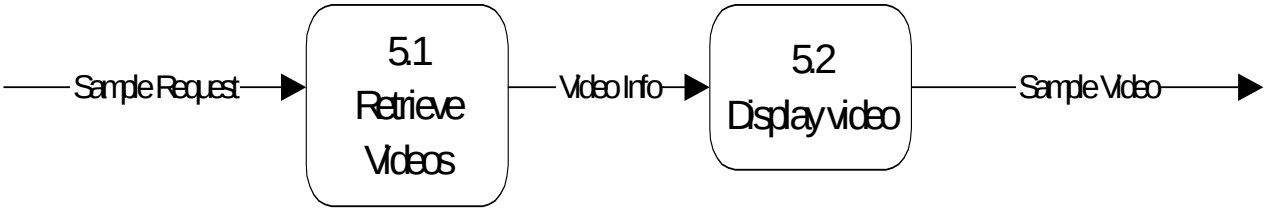
Purchase DVD (4)



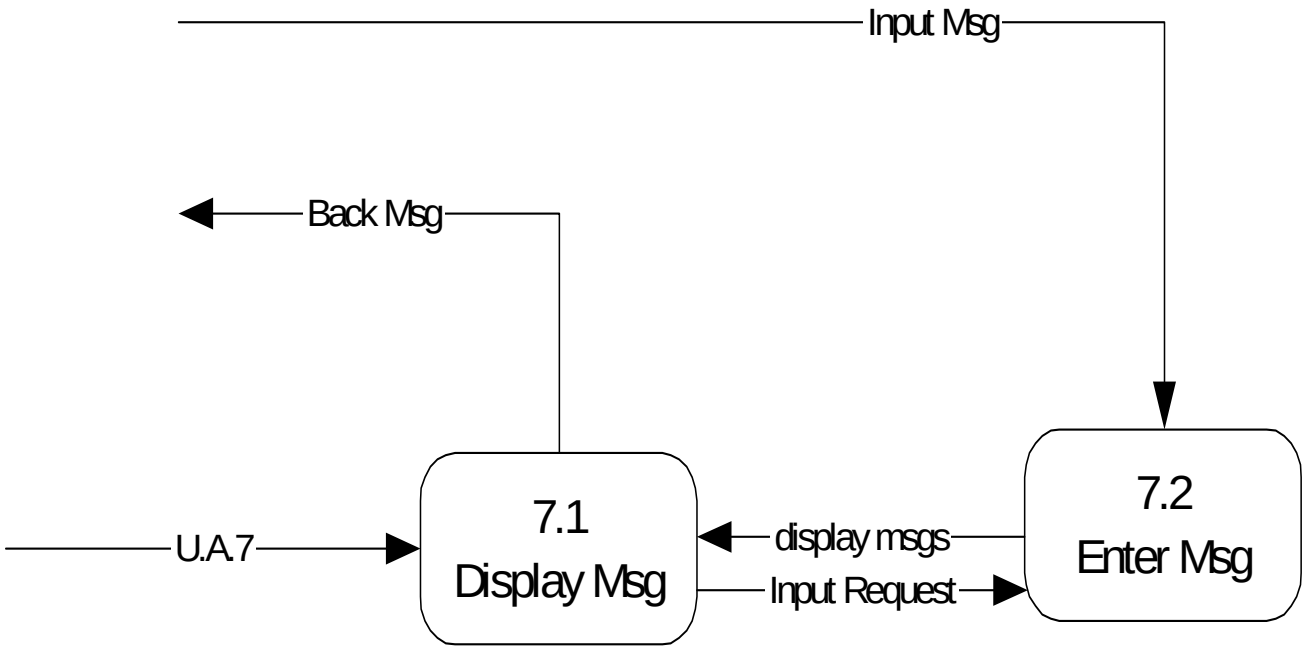
Shopping Cart (5)



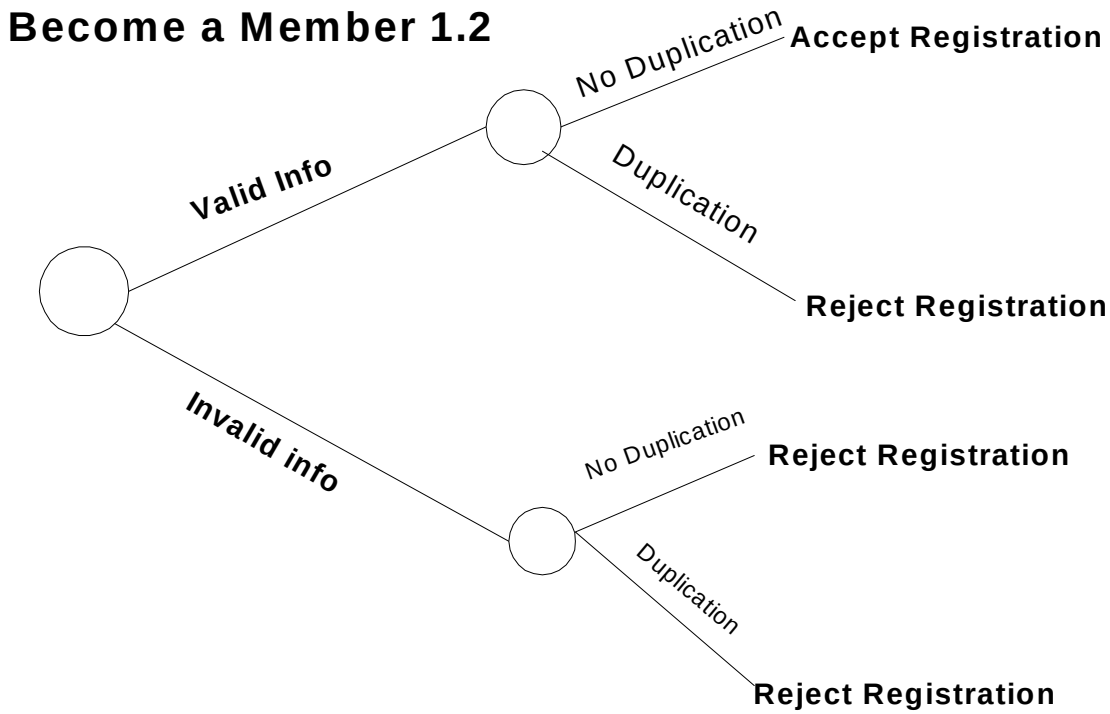
Preview Site (6)



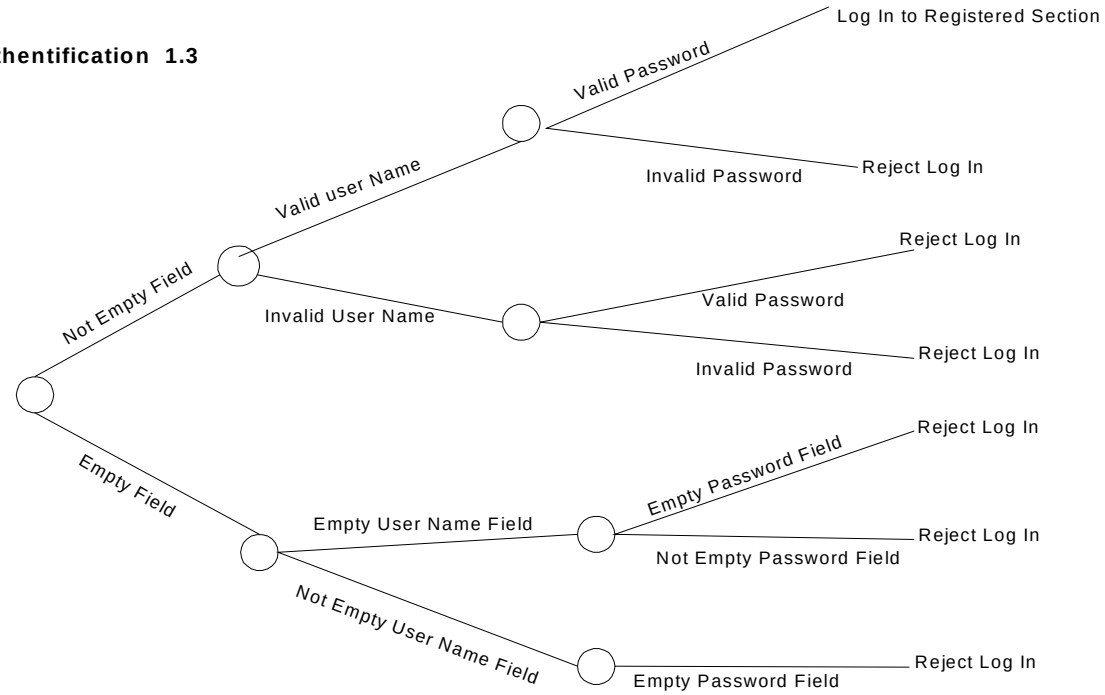
View Message Board (7)



1.2 To-Be Decision Trees

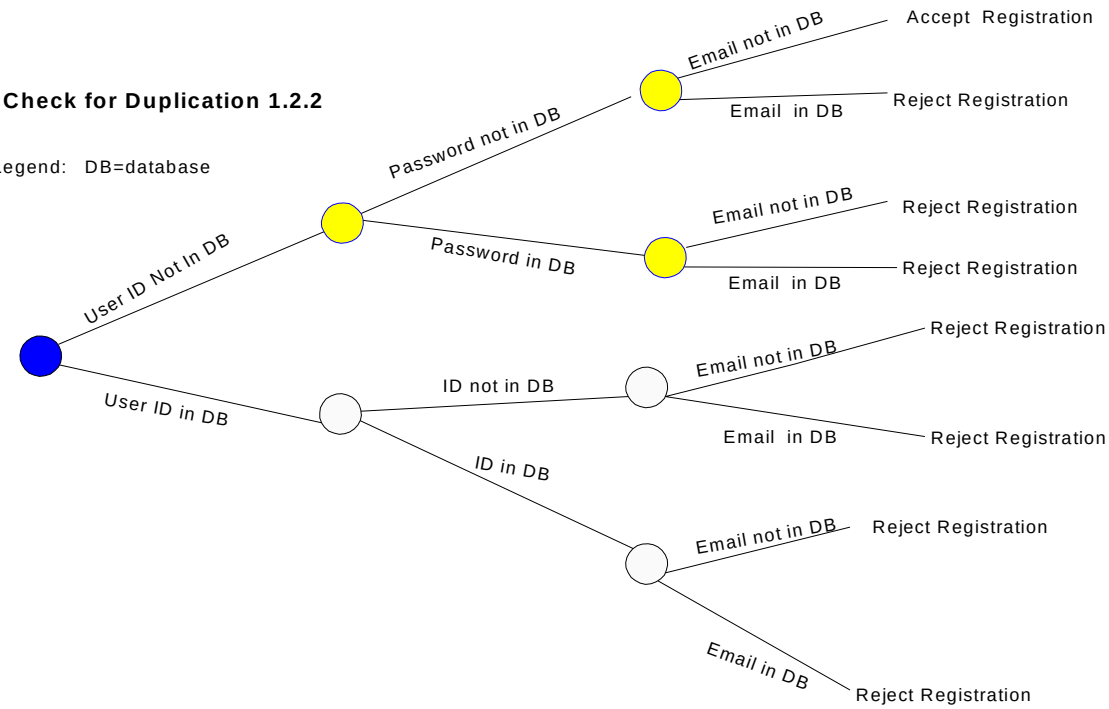


User Authentification 1.3

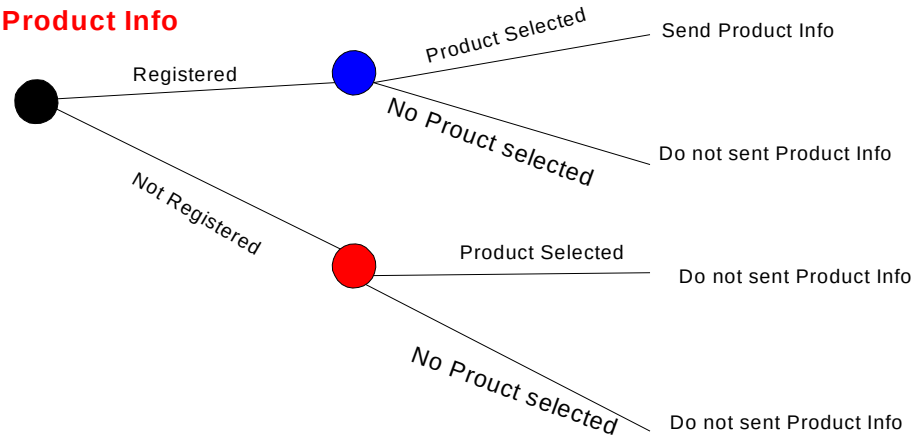


Check for Duplication 1.2.2

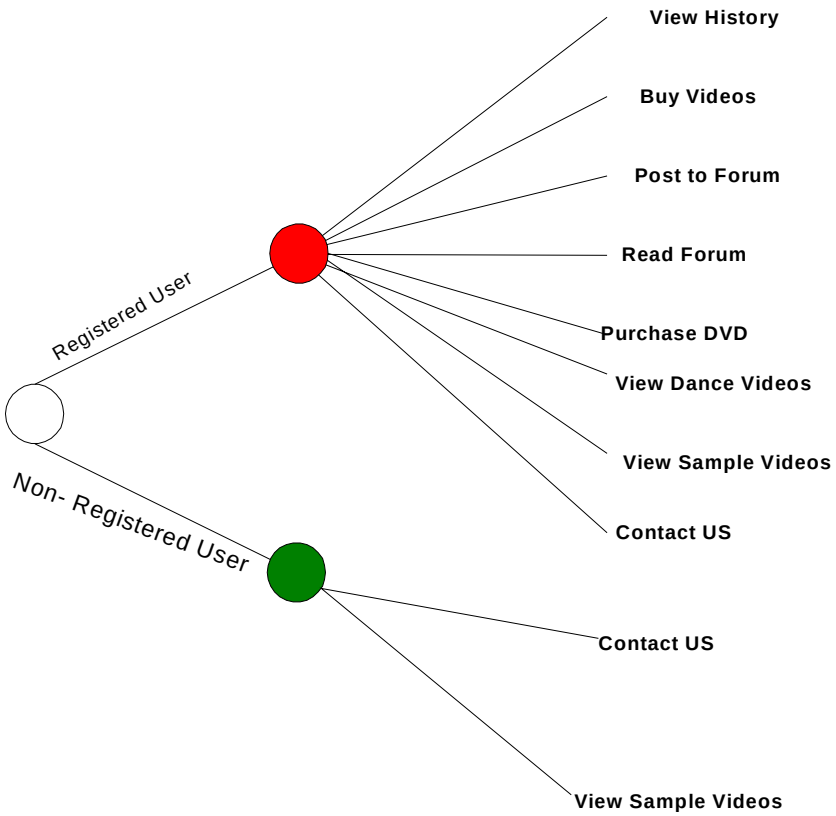
Legend: DB=database



Puchase DVD- Send Product Info



Preview Site 5.0



1.3 To-Be Decision Tables

Decision Tables Legends: Y=yes N= No

Become a Member : 1.2				
Base On:	**1**	**2**	**3**	**4**
Valid Info?	Y	Y	N	N
Duplication?	Y	N	Y	N
Action				
Accept Registration		X		
Reject Registration	X		X	X

Registered User Authentification 1.3							
Base On:	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Valid User Name?	Y	Y	N	N	N	N	N
Valid Password?	Y	N	Y	N	N	N	N
User Name Empty?	N	N	N	Y	Y	N	N
Password Empty?	N	N	N	Y	N	Y	N
Action							
Go to Registered Area	X						
Reject Log In		X	X	X	X	X	X

Check for Duplication Entry 1.2.2								
Base on :	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
User ID in Database?	Y	Y	Y	Y	N	N	N	N
Password in Database?	Y	Y	Y	Y	N	N	Y	Y
Email Address?	Y	N	Y	N	Y	N	Y	N
Action								
Accept Registration						X		
Reject Registration	X	X	X	X	X		X	X

Send Product Info: 2.0				
Base on:	**1**	**2**	**3**	**4**
Registered User?	Y	Y	N	N
Product Selected?	Y	N	Y	N
Action				
Send Product Info	X			
Do not Send Info		X	X	X

Preview Site: 5.0		
Base On	1	2
Is Registered?	Y	N
Action		
Preview Sample Video	X	X
Buy Video	X	

View History	X	
View Dance Video	X	
Contact US	X	X
Post to Forum	X	
View Forum	X	
Purchase DVD	X	

1.4 To-Be Structured English

Figure 1.2 Becoming A Member.

For each New User Registration Session

If USER-DATA = valid and if DUPLICATION = No
Output Accept new user registration
Else
Output Reject Registration

Registered User Authentication 1.3.

If USER-NAME is valid
If PASSWORD is valid
User goes to registered area
Output Invalid PASSWORD
Reject Login
Else
Output Invalid User Name
Reject Log in

Check for Duplication Entry 1.2.2

If USER-NAME already in Database
Reject Registration
Else

If PASSWORD is already in Database
Reject Registration
Else

If E-MAIL is already in Database
Reject Registration
Else
Accept Registration

Send Product Info: 2.0

If User Status = Registered
If PRODUCT is selected
Send PRODUCT info
Else
Do Not Send Product Info
Else
Do Not Send Product Info

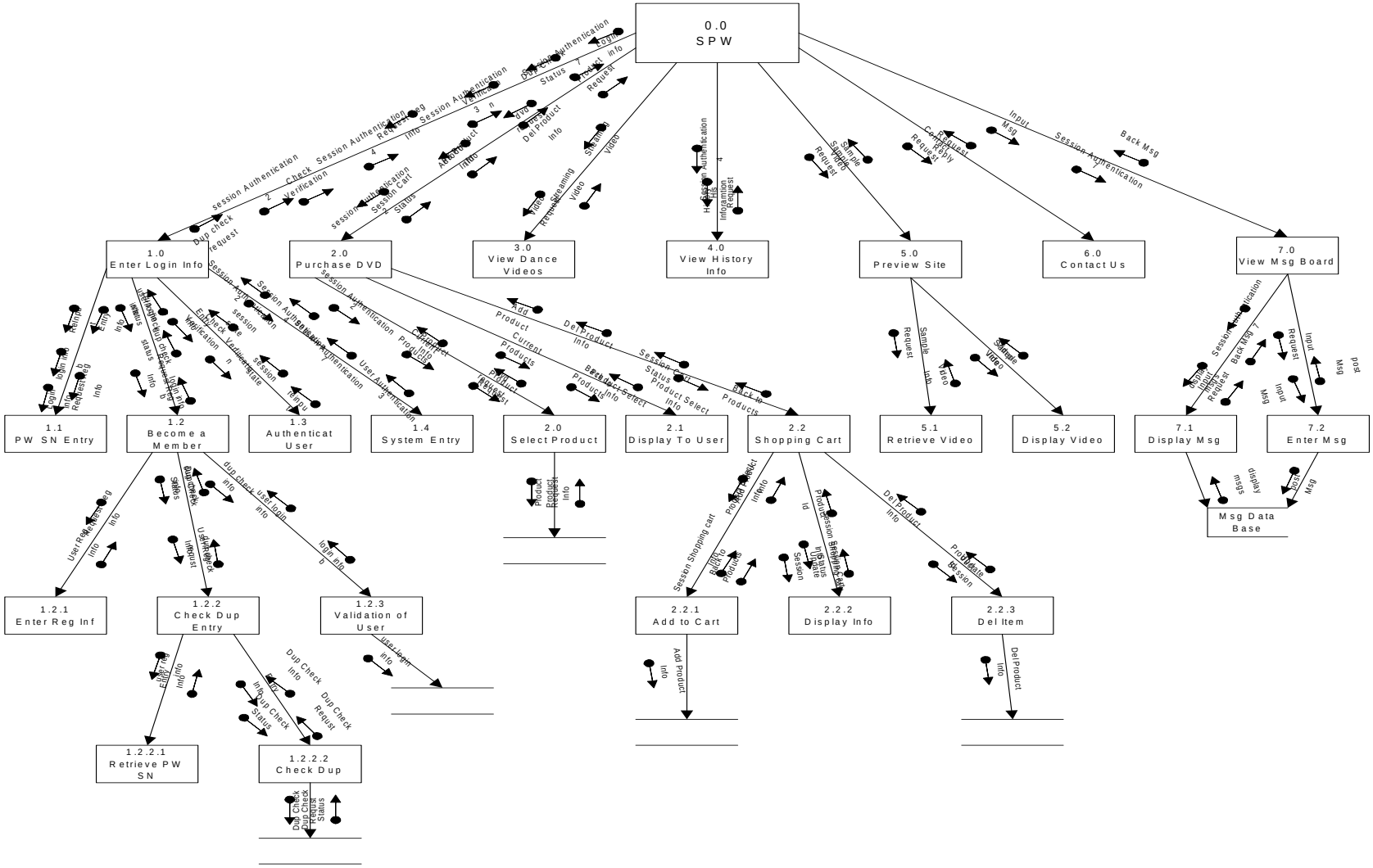
Preview Site 5.0

If USER status = Registered
PREVIEW Sample Video
Buy Video
View History
View Dance Video
Contact Us
Post to Forum
View Forum
Purchase DVD
Else
Preview Sample VIDEO
Contact Us

1.5 To-Be Data Dictionary

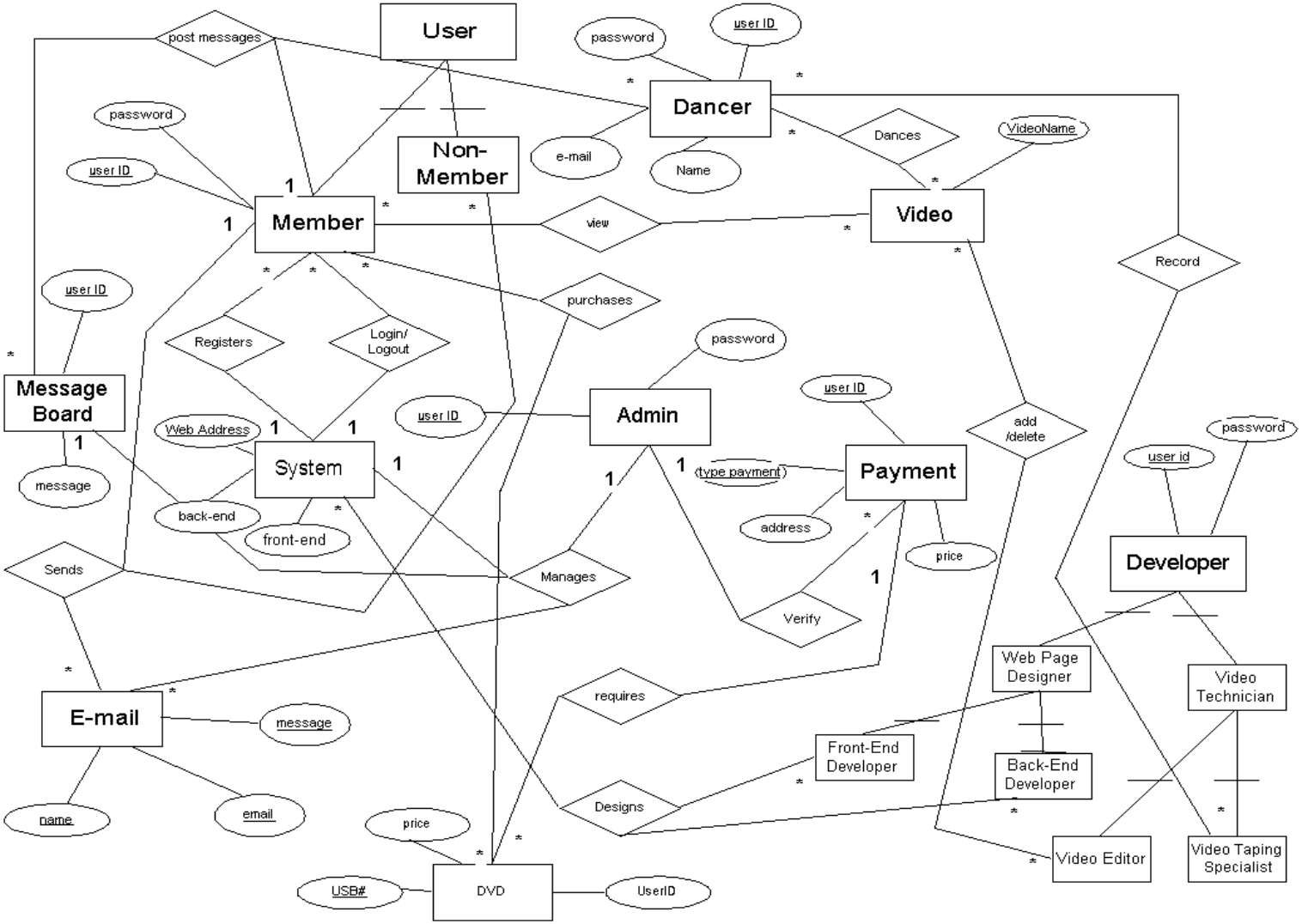
User-Data	Name + UserID + Password + Address + Phone-Number + Card-Number
Name	First-Name + Last-Name
Address	House-Number + Street-Name + City + State + Zip-Code
Phone-Number	Area-Code + Number
Card-Number	{[0|1|2|…|-|]}
Expiration-Date	{[0|1|2|…|\/|]}
First-Name	{[A|B|C|…|a|b|c|…]}
Last-Name	{[A|B|C|…|a|b|c|…]}
House-Number	{[0|1|2|…|A|B|C|…|a|b|c|…]}
Street-Name	{[A|B|C|…|a|b|c|…|0|1|2|…]}
City	{[A|B|C|…|a|b|c|…]}
State	{[A|B|C|…|a|b|c|…]}
Zip-Code	{[0|1|2|…]}
Area-Code	{[0|1|2|…]}
Number	{[0|1|2|…]}
Password	{[A|B|C|…|a|b|c|…|0|1|2|…]}
Login Id	{[A|B|C|…|a|b|c|…|0|1|2|…]}
Product	Item ID + Product Name + Price
Item ID	{[0|1|2|…|-|]}
Product Name	{[A|B|C|…|a|b|c|…|0|1|2|…]}
Price	{[0|1|2|…]}
Shopping Cart	Item ID + UserID +ItemID +Quantity
Quantity	{[0|1|2|…]}
UserID	{[A|B|C|…|a|b|c|…|0|1|2|…]}

1.6 Structured Chart



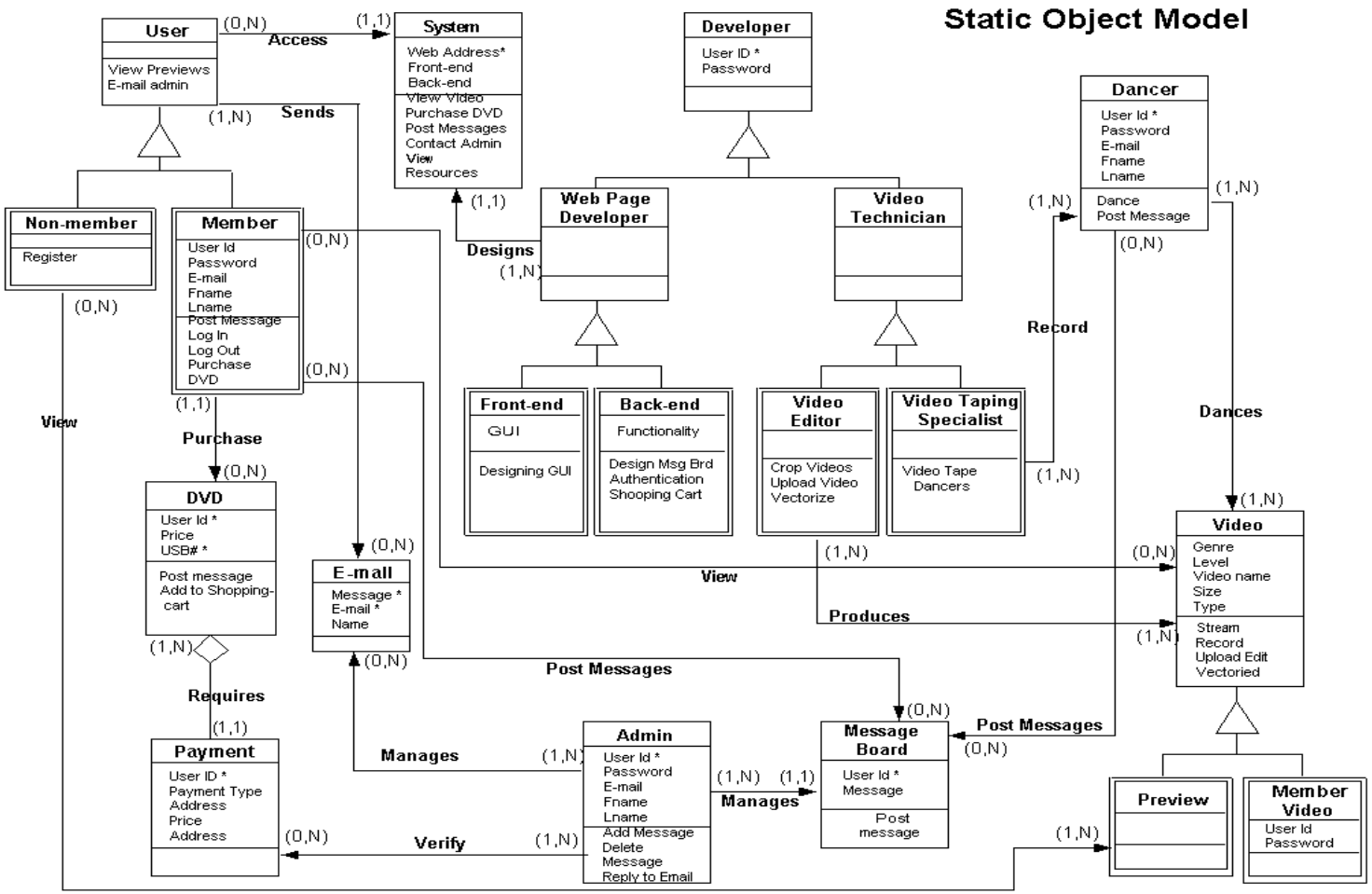
2. Data Driven Design

2.1 ERM



3. Object Oriented Design

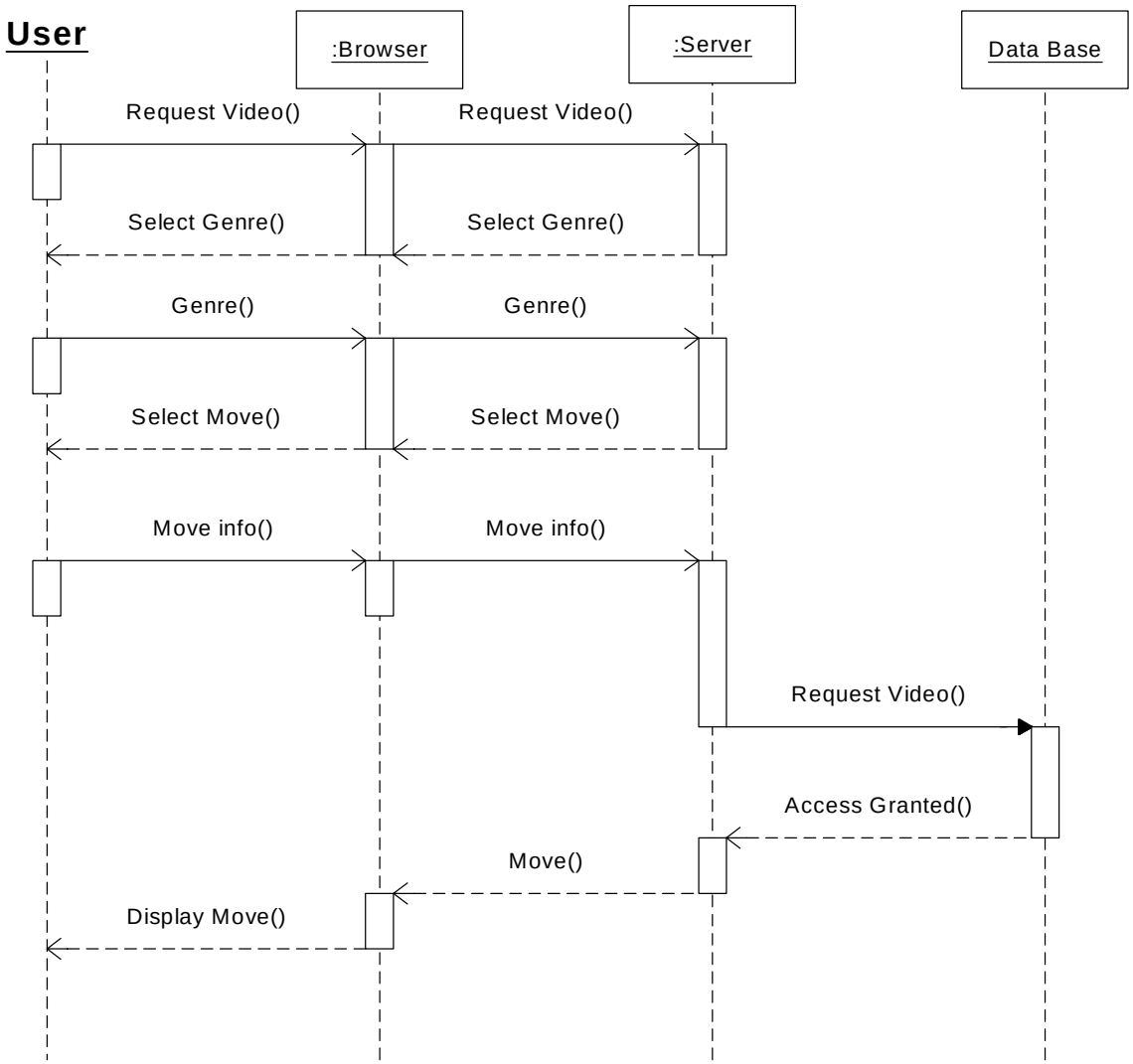
3.1 Static Object Model



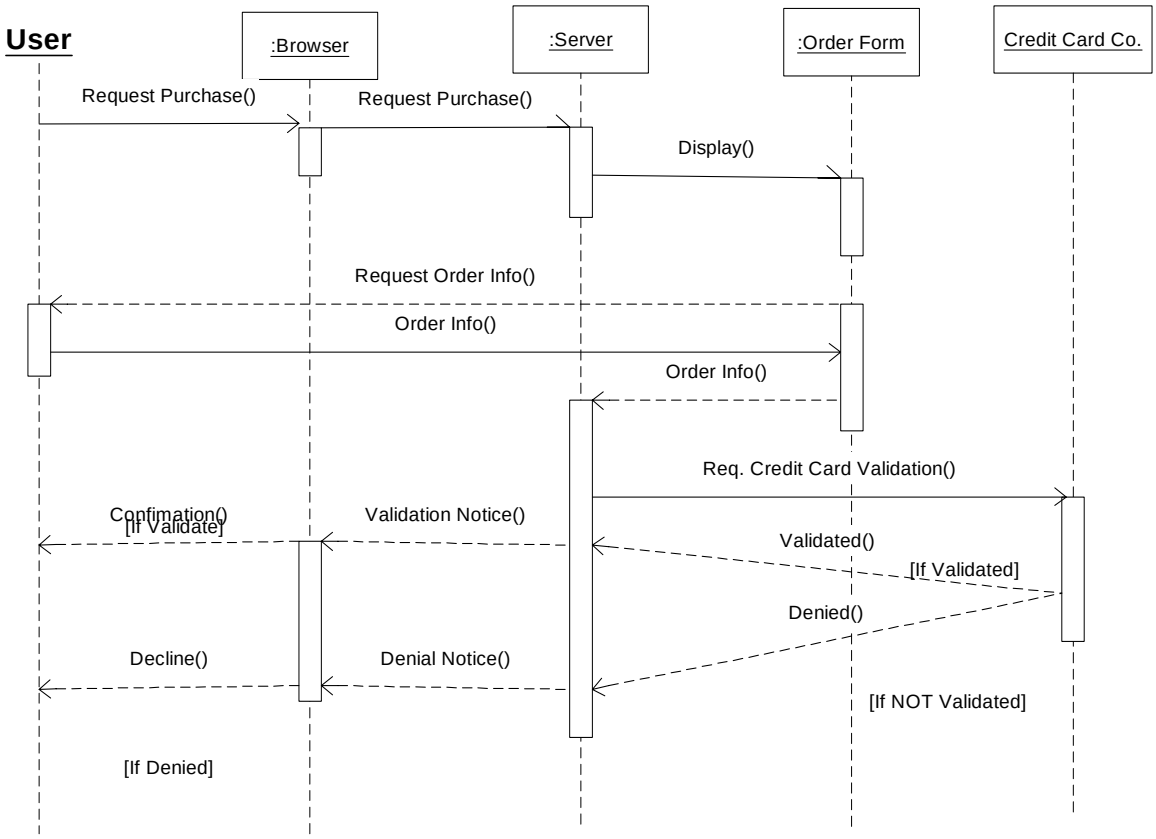
3.2 Dynamic Modeling

3.2.1 Sequence Diagrams

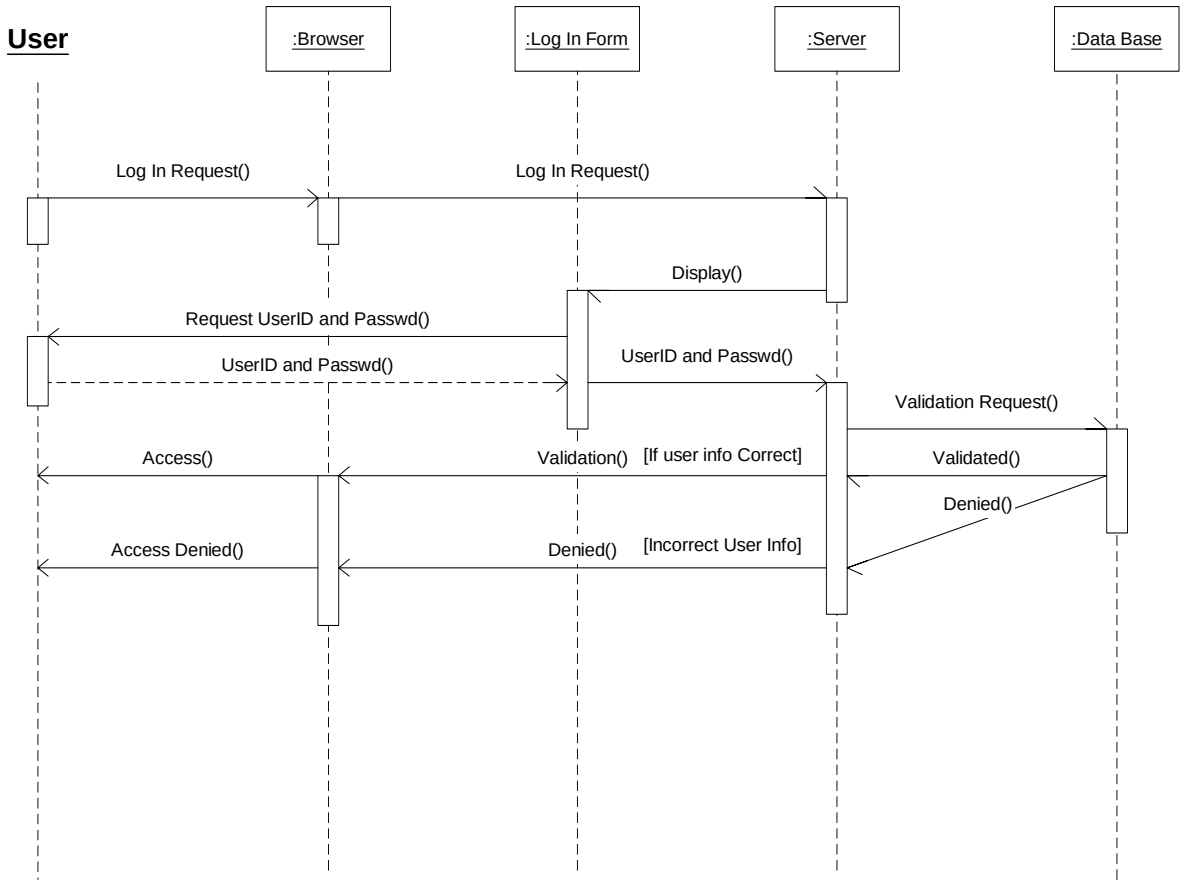
3.2.1.1 Download



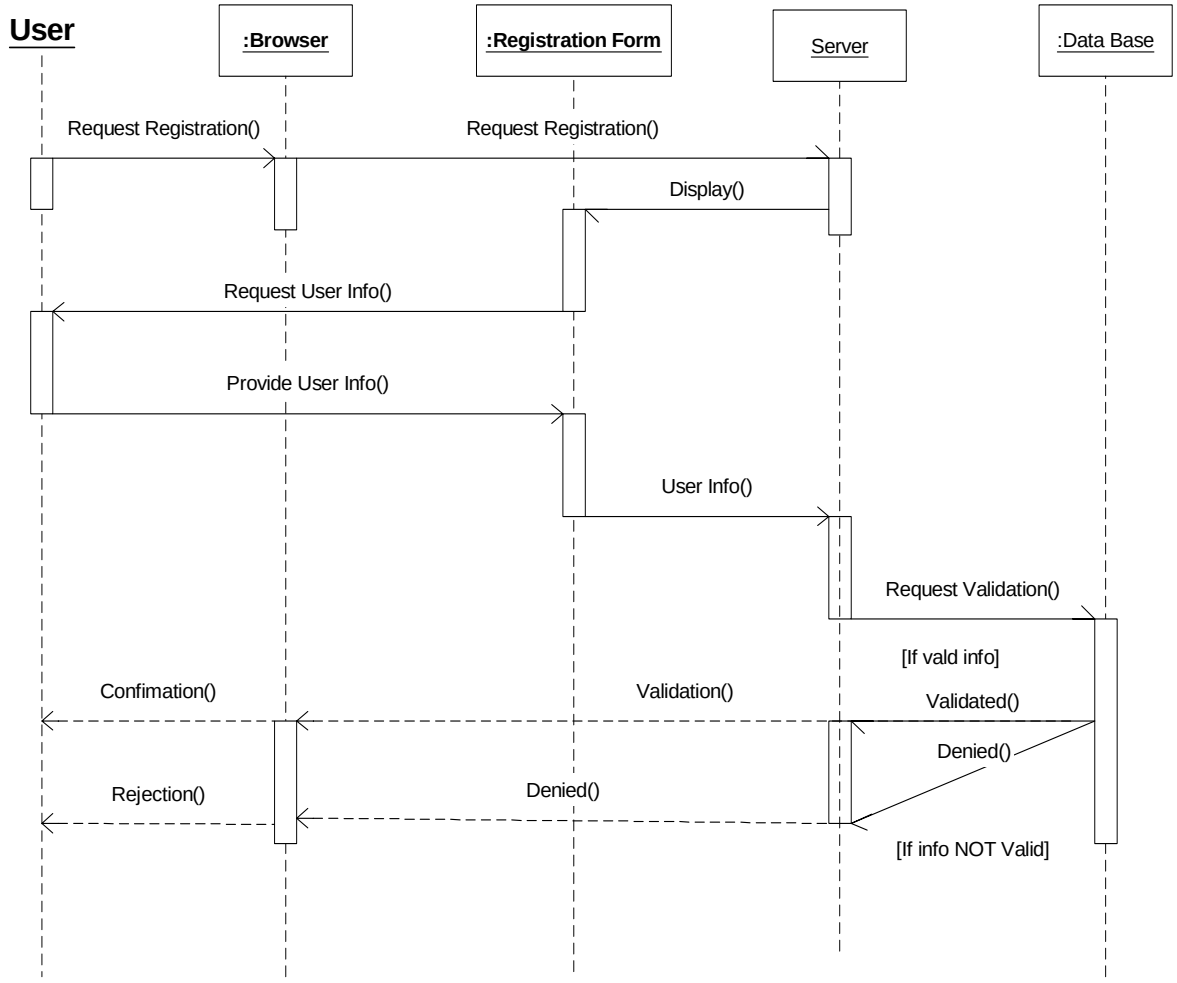
3.2.1.2 Sequence Diagram: Purchase DVD



3.2.1.3 Sequence Diagram: Log In

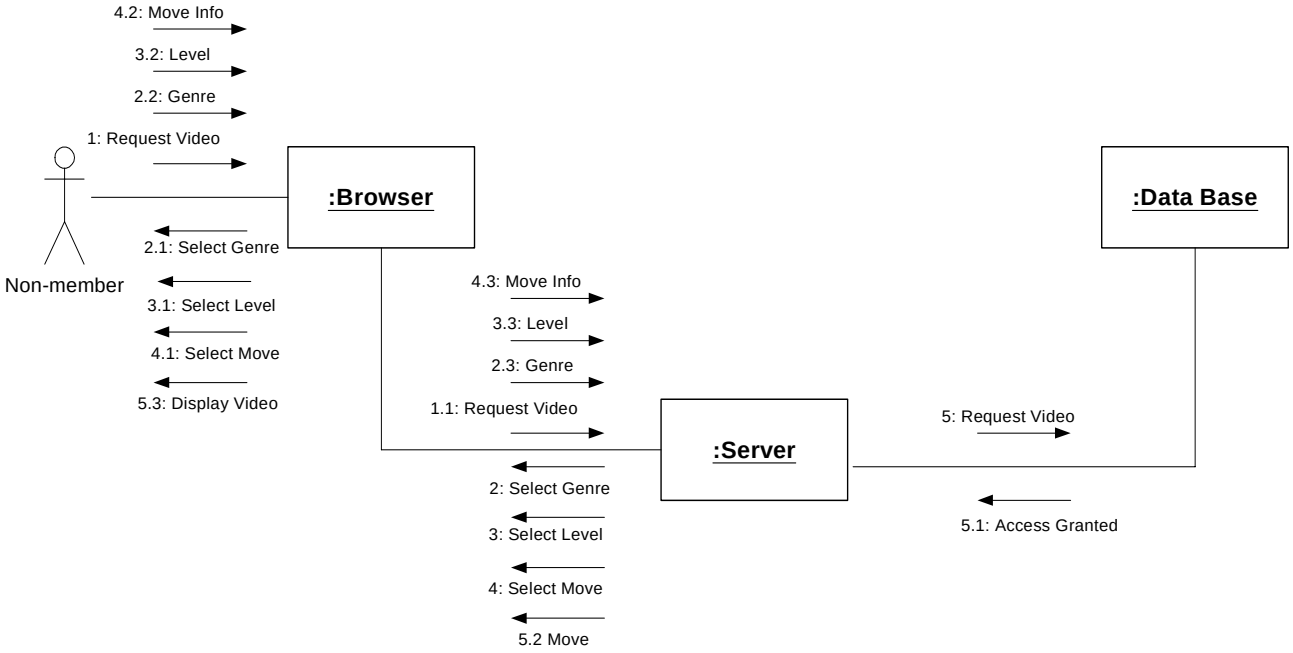


3.2.1.4 Sequence Diagram: Registration

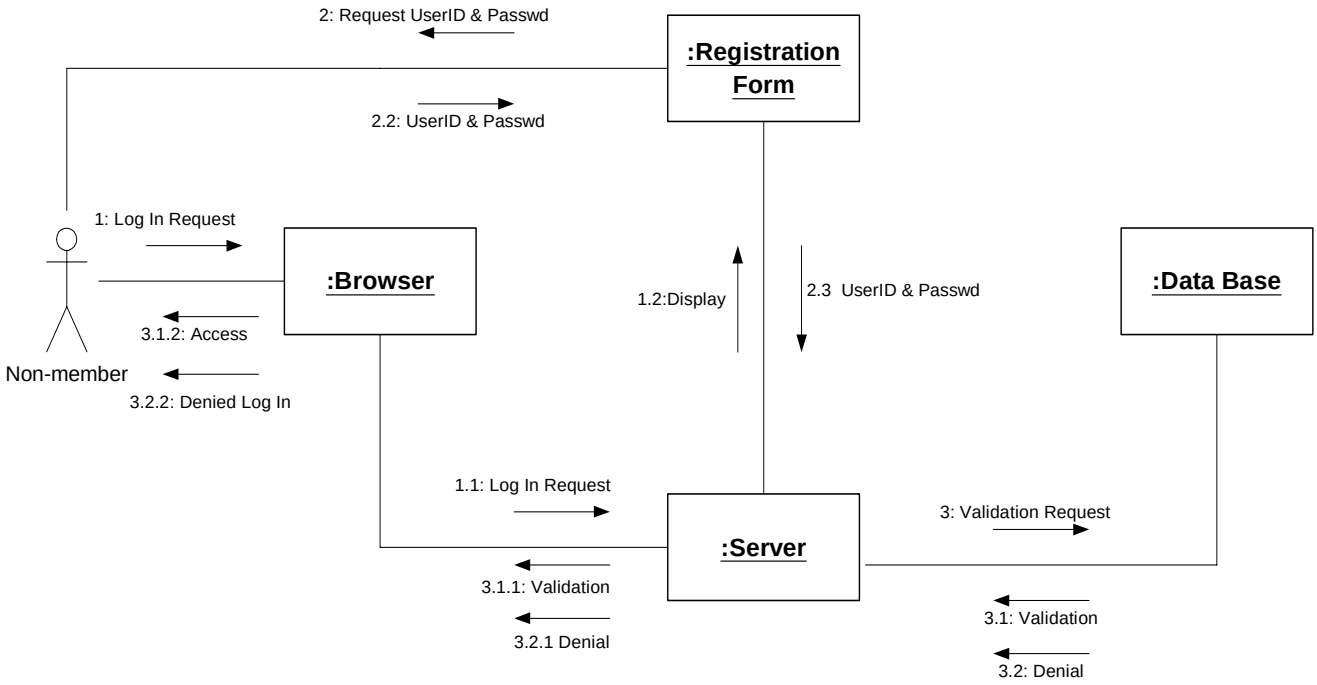


3.2.2 Collaboration Diagrams

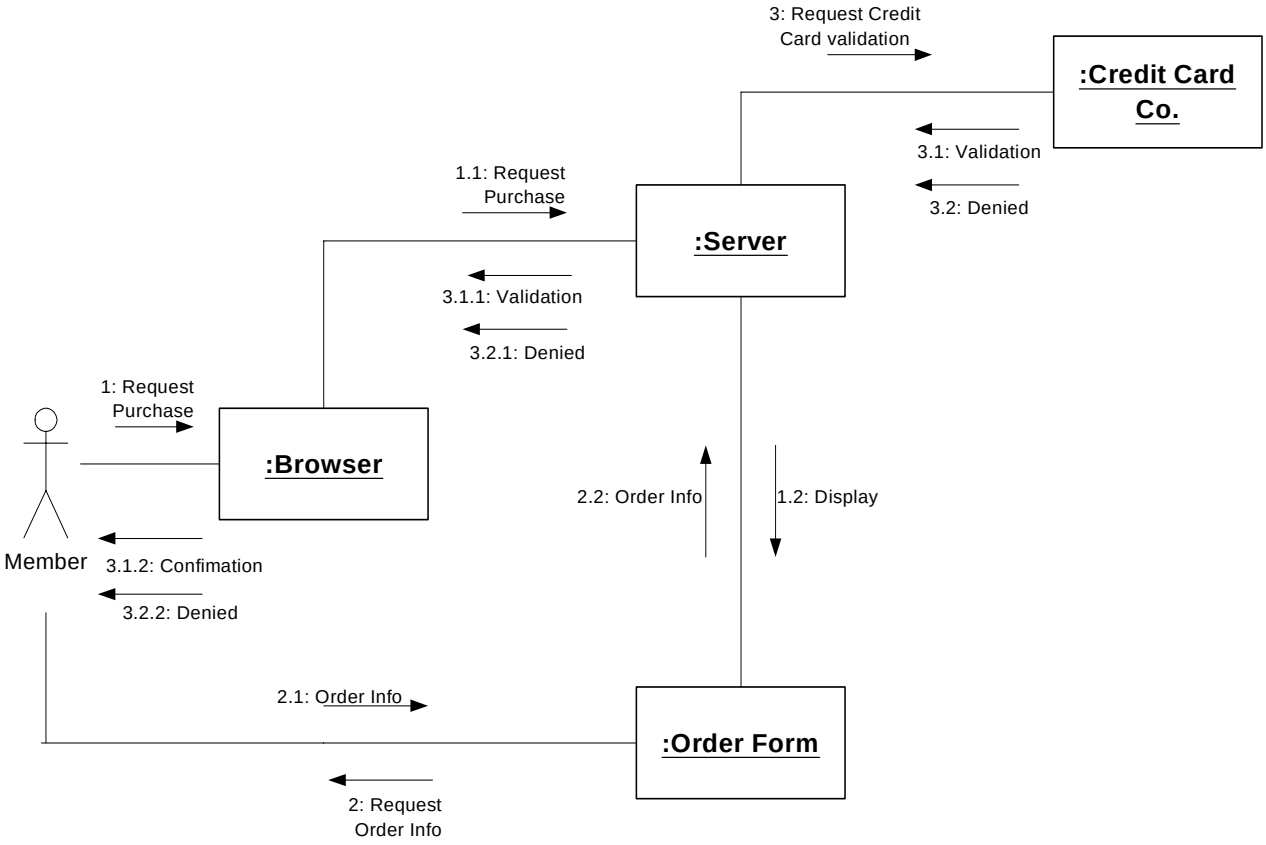
3.2.21. Download Collaboration Diagram



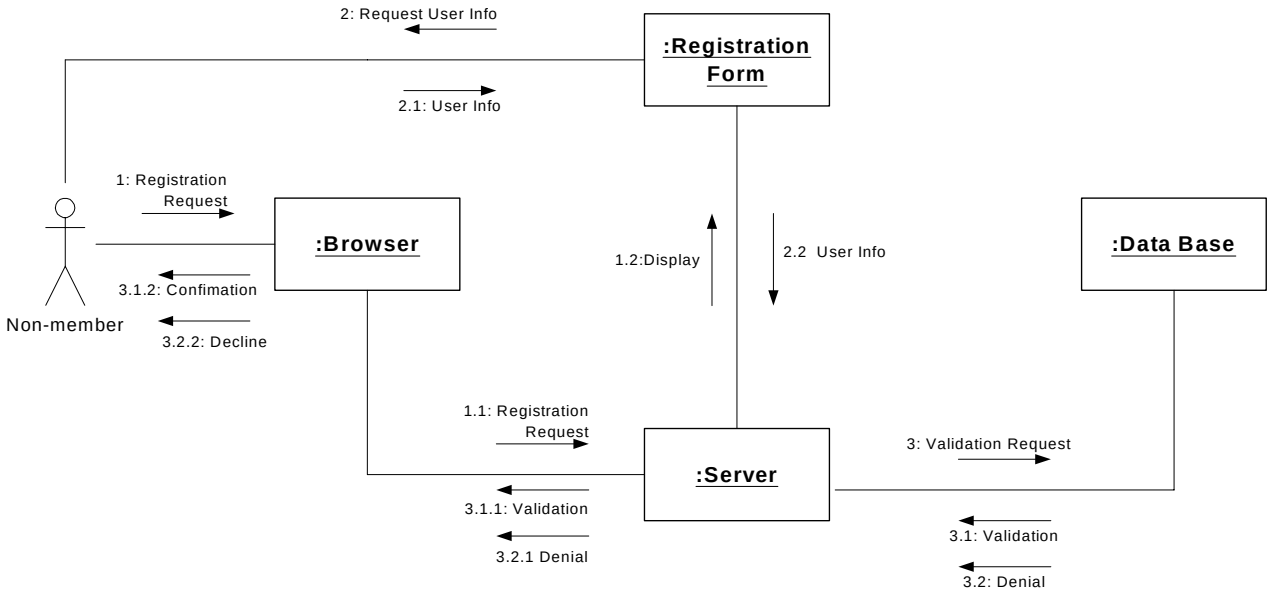
3.2.2.2 Log In Collaboration Diagram



3.2.2.3 Purchase DVD Collaboration Diagram

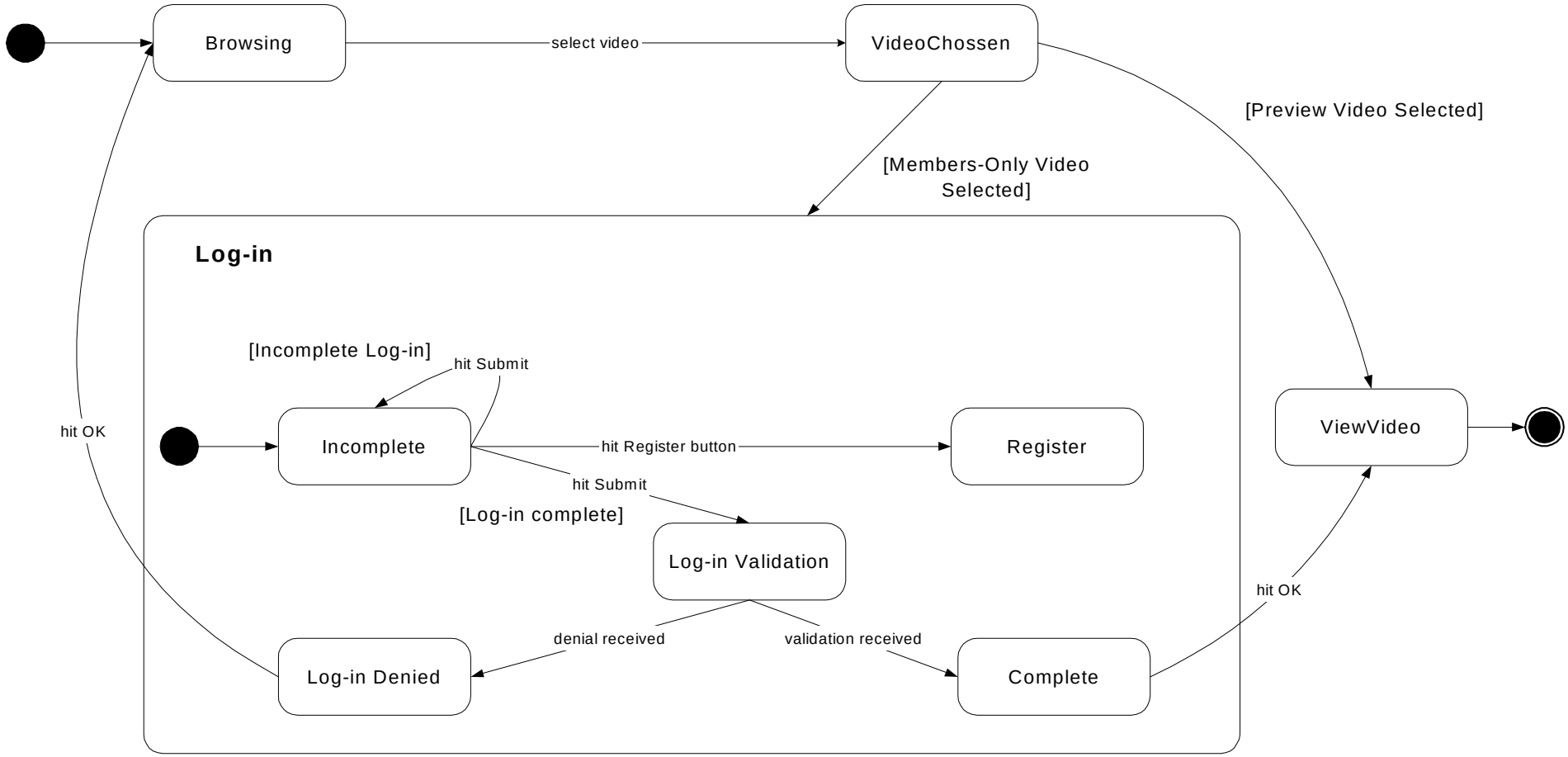


3.2.2.4 Registration Collaboration Diagram

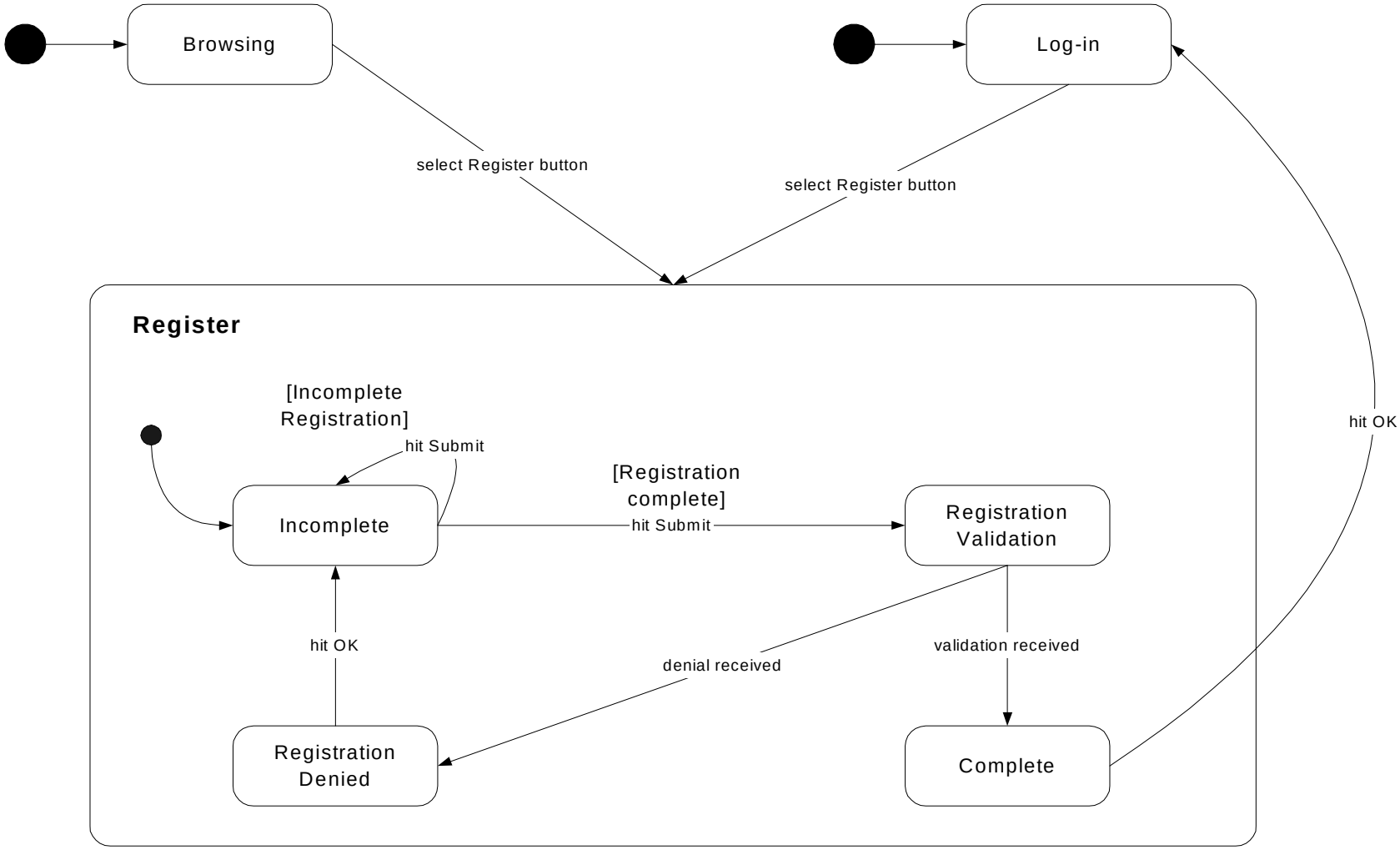


3.2.3 State Transition Diagrams

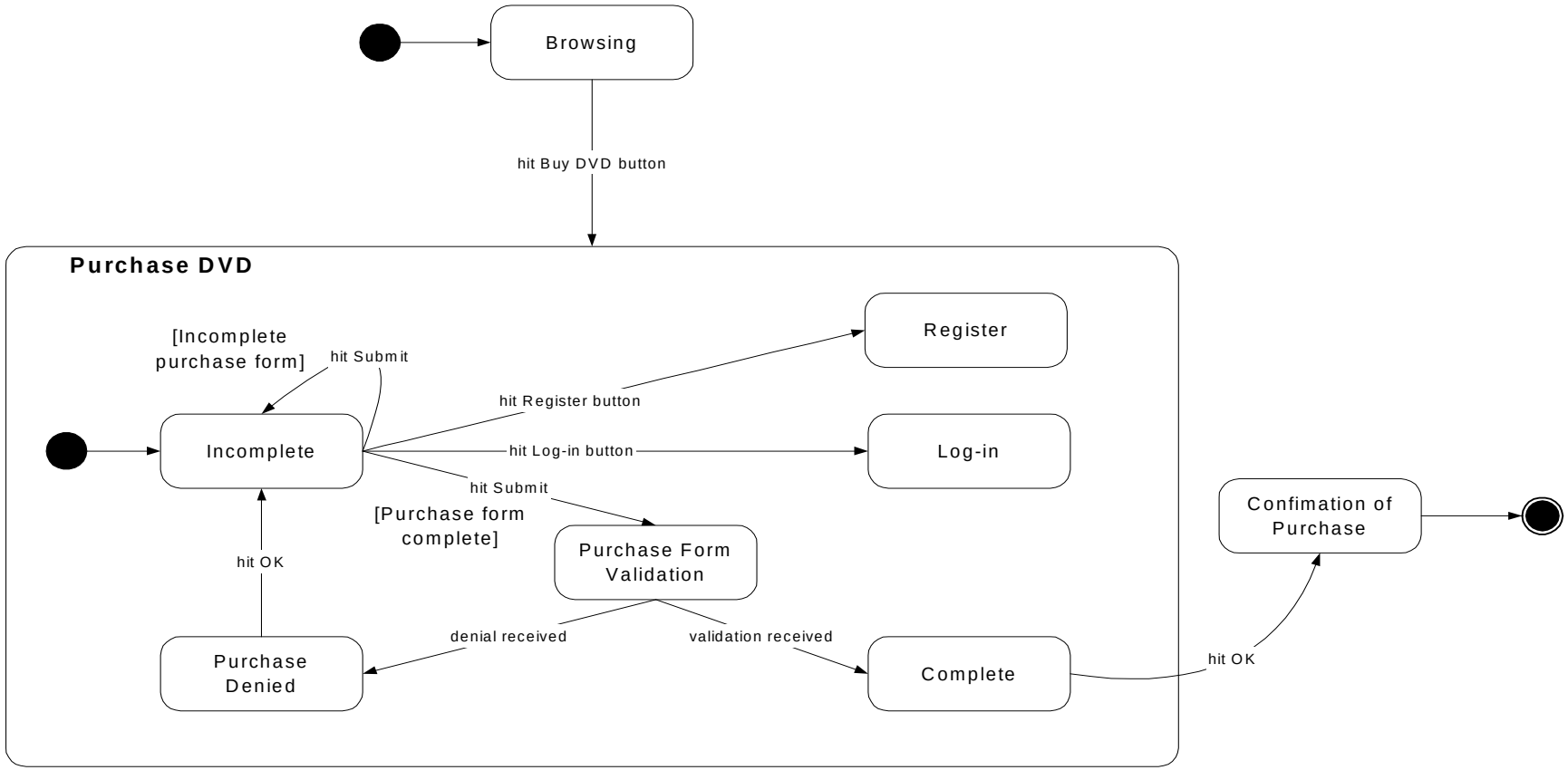
3.2.3.1 Download/Log In State Transition Diagram



3.2.3.2 Registration State Transition Diagram



3.2.3.3 Purchase DVD State Transition Diagram



4. Outside-In Driven Design

4.1 Front-End Design

4.1.1 Metaphors

- Submit: Metaphor for submit information to sever to be process
- Off: Metaphor to turn on and off the music
- Reset: Metaphor to erase all content in form
- Dance: Metaphor that will direct users to the dance page
- The Team: Metaphor that will direct users to the Team biographies' page
- Contact Us: Metaphor that will direct users to the Contact us page, in which the user can e-mail the administrator with any question or comments.
- Salsa: Metaphor that will direct users to the salsa page
- Bachata: Metaphor that will direct users to the bachata page
- Merengue: Metaphor that will direct users to the merengue page
- Home: Metaphor that will direct users to the main page
- Purchase DVD: Metaphor that will direct users to the Purchase DVD page In which the user can purchase the DVD with a credit card or by printing a mail in form.
- Highlights: Metaphor that will direct users to the highlights page
- Resources: Metaphor that will direct users to the Resources page
- History: Metaphor that will direct users to the history page of a particular genre.
- Forums: Metaphor that will direct users to the message board
- Beginner: Metaphor that will display users to the beginner section of a particular genre.
- Intermediate: Metaphor that will display users to the intermediate section of a particular genre.
- Advanced: Metaphor that will display users to the advanced section of a particular genre.
- Printer Friendly Version: Metaphor that will display a particular page in a printer friendly version

4.1.1.2 Mental Model

4.1.1.2.1 Outline Content

Main Page

- Main Section displaying logo, pictures and text (welcome section of web site)
- Log in section
- Links to all other sections of the web site
- Highlights section: will display the new or modify features of the web site

- Dance Clubs: will advertise dance events around the area

FAQ

- In this page the most common questions on the mail goal of the website, functionality, videos and software needed, will be answer.
- Links to give the user quick access to the following pages will also be provided:
    - Team Bios
    - Message Board
    - Learn to Dance
    - Media Player

Contact Us

- From this page the users will be able to contact the administrator with any comments or questions they might have
- The following items will be required from the user:
    - Name
    - E-mail
    - Message

Team Bios

- Information on Group Members and Dancers will be Provided in this section
- A picture and contact information of each member will also be display

Registration Form

- This page will allow the user to register for our website, so he/she can have full access to the web site's features.
- The following information will be asked from the users when they register:
    - First Name
    - Last Name
    - Password (twice)
    - E-mail

Preview Video

- This section will be design to give potential customers a preview of out services.
- A video, pictures and written information breaking down a move will be provided.

Order Form

- There will be two versions of this form an on-line transaction version and a printout version.
- The Online Transaction version will allow the users to make a purchase by using their credit card.
- They will be asked the following information:

First Name	Address
Last Name	City
Phone #	State
E-mail	Country

- The printout form will be included in our page to allow our customer to make payments with money orders and or checks.
- The same information as the online transaction form (minus the credit card information) will be required from the customers in this printout form.

Dance

- Once the users clicks the link to the dance page he/she will be redirected to the new page, that will display the Beginner section of Salsa
- It will contain links to the other levels of instruction within Salsa (intermediate, advance) plus links to the genre's resource and history page.
- It will also contain links to the other Genres
- There will also be a "Highlights" and "Purchase DVD" section within this page

Beginner, Intermediate, Advance

- These sections will have an explanation on what the user should expect to learn in this level
- And a list of all the moves available under each category

Example
- Move1
- Move 2
- Move 3
- Move 4
- Etc.

Individual Move's Page

- In this page the client will be able to view a video demonstrating the selected move.

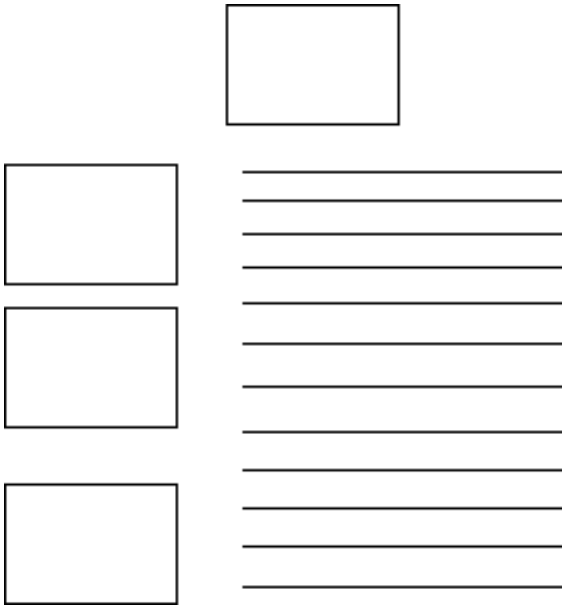
- A written description explaining step-by-step the selected move
- And Pictures breaking down each move will also be provided

Highlights

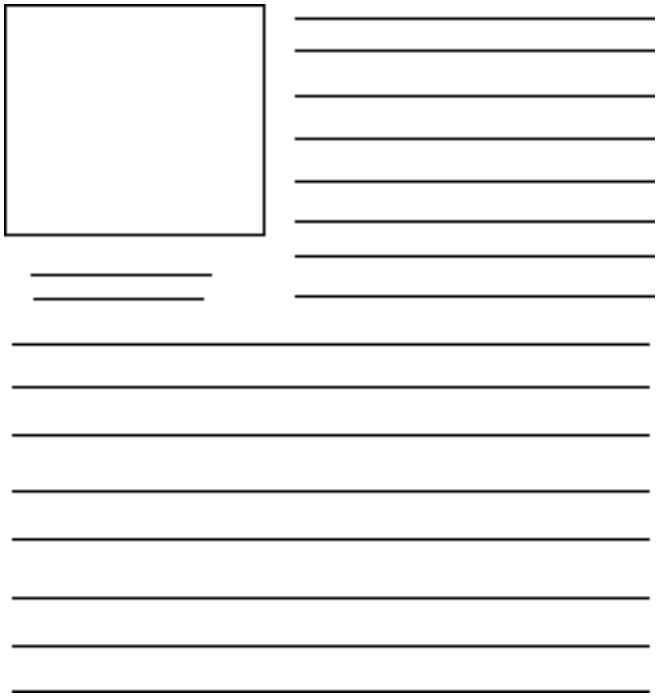
This section will have links to the new or just modify sections of the web site

4.1.1.2.2 Outline Content and Functionality

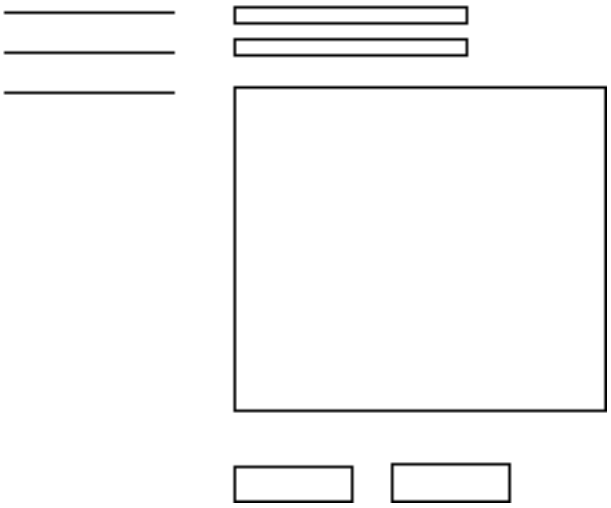
Beginning Intermediate Advanced



Team Bios

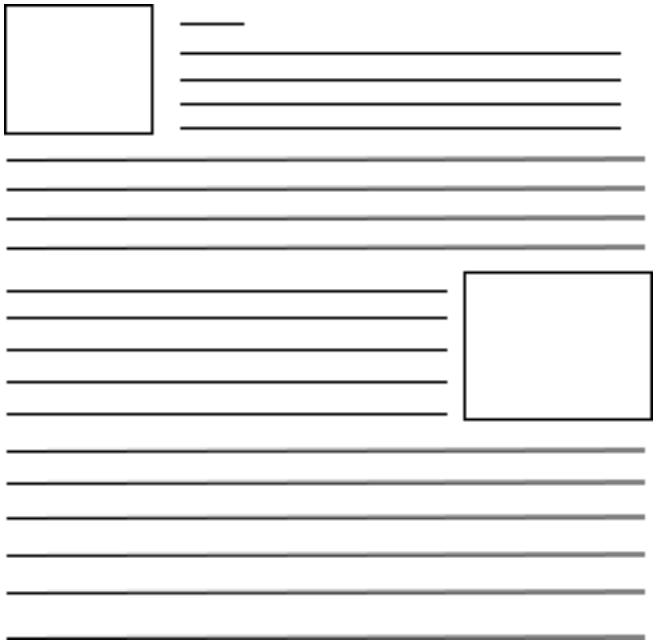


Contact Us

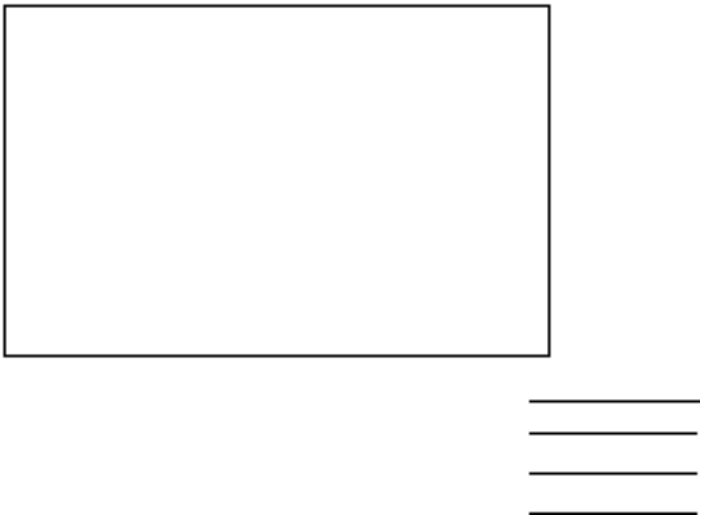


FAQ's

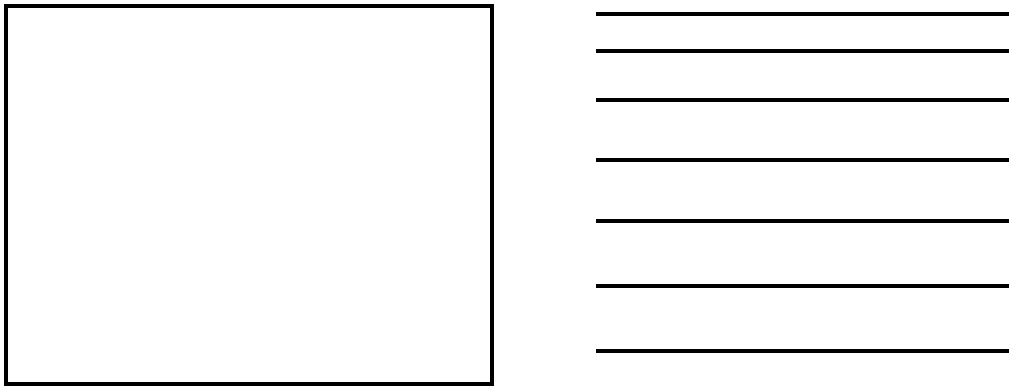
History



Home



Products



Team

4.1.1.3. Navigation Rules

1. Register
    a. Open Website
        i. Splash Page appear
    b. Enter Home page
    c. Click the New Member button at the lower right hand side of main page
    d. Fill in all required fields in the form
    e. Click Submit

2. Log-in
    a. Open Website
        i. Splash Page appear
    b. Enter Home page
    c. Enter Use ID and Password in main page
    d. Hit Enter

3. Download Basic Salsa move in Intermediate section.
    a. Open Website
        i. Splash Page appear
    b. Enter Home page
    c. Register to become a member or Log in if you have a UserID and password
    d. Go to Dance Section
    e. Go to Salsa Section
    f. Go to Intermediate Section
    g. Go to Basic move page

4. Go to Merengue History page
    a. Open Website
        i. Splash Page appear
    b. Enter Home page
    c. Register to become a member or Log in if you have a UserID and password
    d. Go to Dance Section
    e. Go to Merengue Section
    f. Click History link located at left hand side of page

5. Purchase DVD
    a. Open Website
        i. Splash Page appear
    b. Enter Home page
    c. Register to become a member or Log in if you have a UserID and password

d. Go to Dance section
e. Go to Purchase DVD section

6. Post a Message in the Message Board
    a. Open Website
        i. Splash Page appear
    b. Enter Home page
    c. Register to become a member or Log in if you have a UserID and password
    d. Click the Forums button
    e. Pick a Genre
    f. Select a thread in which to post message or create a new thread
    g. Write message
    h. Hit submit

4.1.1.4 Look - How appealing is the GUI? What's the difference?

The SalsaPartyWalk.com interface is very appealing to the users. Light blue colors in conjunction with black text on white backgrounds come together to make the interface very easy on the eyes. The usage of colors and text strive to make the page a pleasant experience for the user while still maintaining a fresh and new look. As an introduction, the web site opens up to a flash intro, utilizing vectorized images captured from the website's dance videos. Once the user has gained access to the first page of the website, he/she may notice something very convenient. Links to all of the website's sections (including the history sections) are available on this first page. This is an advantage to someone who has never been to the page before; they know exactly where everything is located upon entering the website. Still another attribute that makes this page so appealing is the consistency used for each individual section. Regardless of what part of the site is being viewed, a user maintains the same feeling he/she had when they first entered the site. The site's consistency also contributes to how oriented a user feels on the website. For example, each link and title is organized exactly the same way on each section making it easier for the user to read and find information on the website.

Last but not least, the website contained a good navigation. Many websites tend to have too many options or buttons to click on and sometimes do not allow the option to return back to home. SalsaPartyWalk.com provides a smooth and easy navigational process for the users so that again, they are well oriented and their experience is a positive one. All of these techniques work together to create a look that is both attractive and easy to use.

The secret that sets SalsapartyWalk.com aside from other sites in terms of look lies within one idea. SalsaPartyWalk.com focuses on what the users want and so designed the site interface to accommodate those needs. The site's main focus is user friendliness. It was necessary for the interface to be easy to use for the average user considering it was created for them. Once requirements for user friendliness have been met, the website focuses on appearance. Features such as the intro page and dance videos, makes the look very distinctive. These two concepts being the main focus are what make SalsaPatyWalk.com different from many other dance websites. Features that were focused on here were what other dance websites have overlooked.

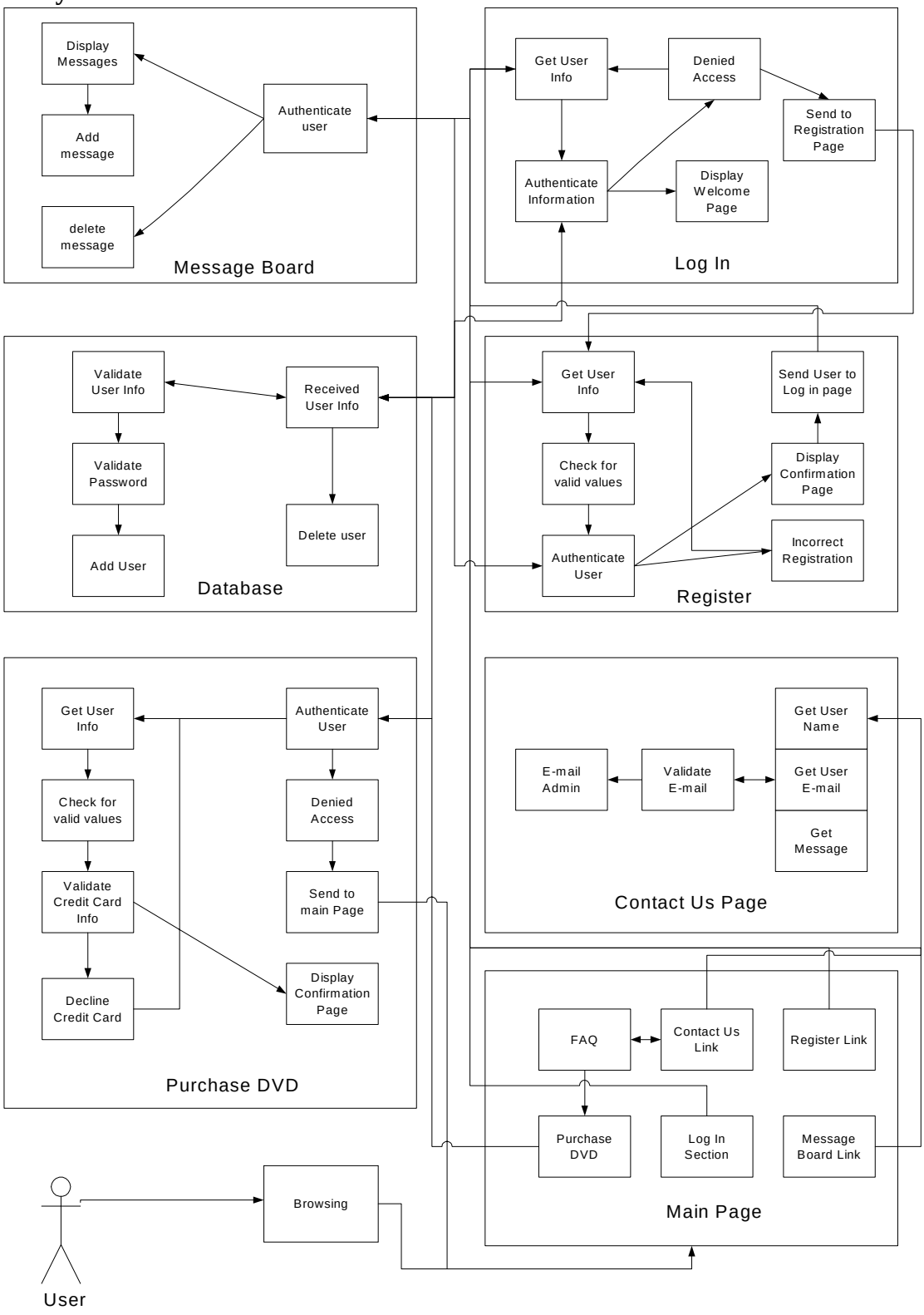
4.1.1.5 Feel – Interactivity

SalsaPartyWalk.com provides users the opportunity to interact with the system. If a user wants to contact the website administrator, he/she may do so through the contact page. By clicking on the "Contact Us" link, the user can email their questions and/or concerns to the system's administrator. A user may not necessarily have a question or concern, rather just a comment or message that they may want others to benefit from. If this is the case then they can simply do so by clicking on the Message Board link. In using the website's message board the user will be able to interact with not only the SalsaPartyWalk.com dancers but also with other users of the website. Including interactivity in the website is a good way to keep users interested, therefore making it easier for them to revisit the site once again.

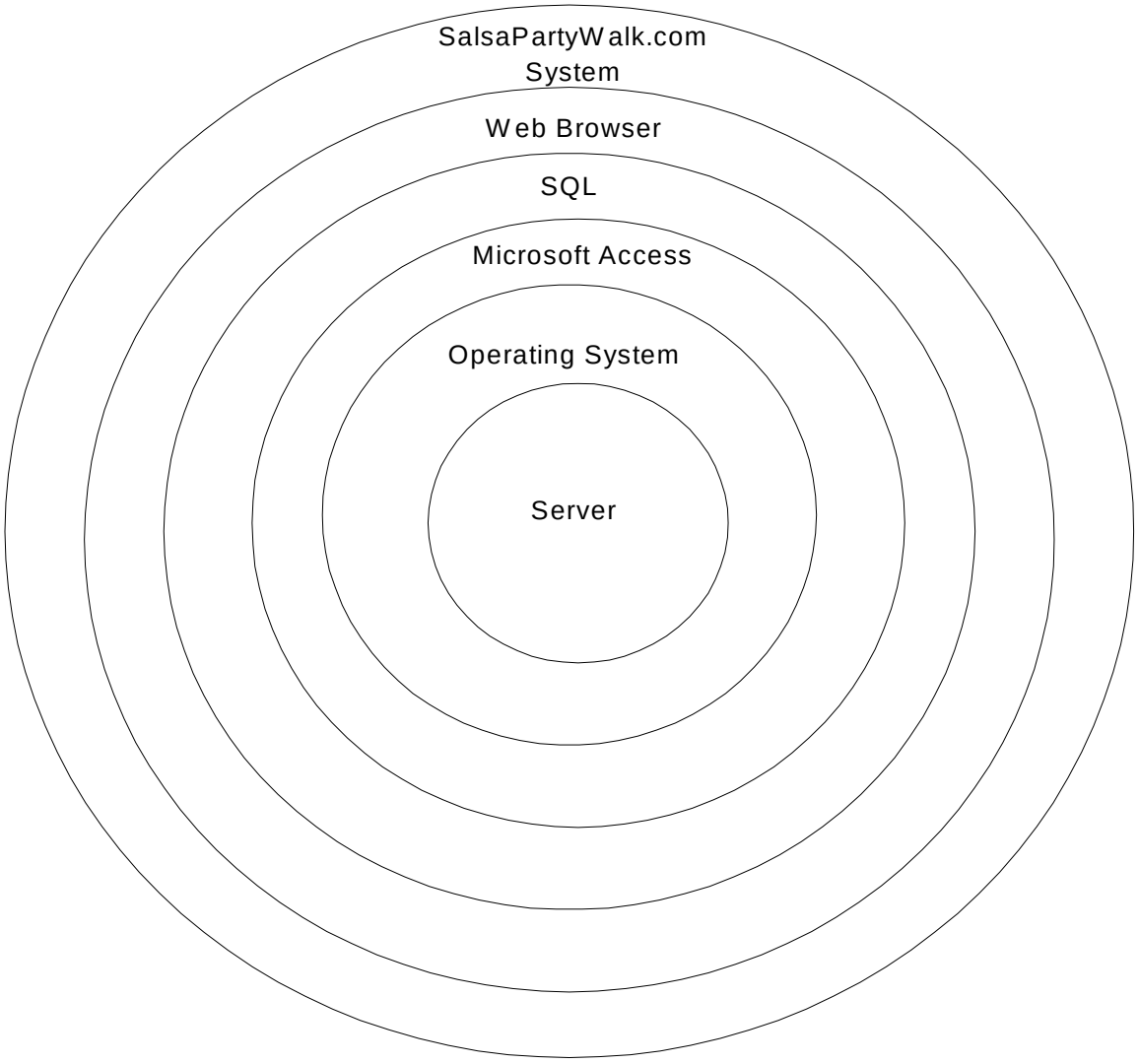
The way that a user feels when he/she visits the website is very important because it influence their opinion of how good the website actually is. For ease of use the user is provided with many help options. The Frequently Asked Questions for example allows users to post and read messages regarding any problems or questions they may have. Links to other dance related sites are also provided so that users can find any other information on dance via other websites. If for any reason there is a question or problem that users feel need to be addressed to the website administrator, then they may do so via the contact page. In addition, error messages and tips appear throughout the site to aid the user while searching and entering information. This is seen on the registration page for example where a user is prompted if the required information is not entered. With so many resources available to the users and so much interaction within the web page, users will definitely be pleased at the end of their experience.

5. Architectural Design

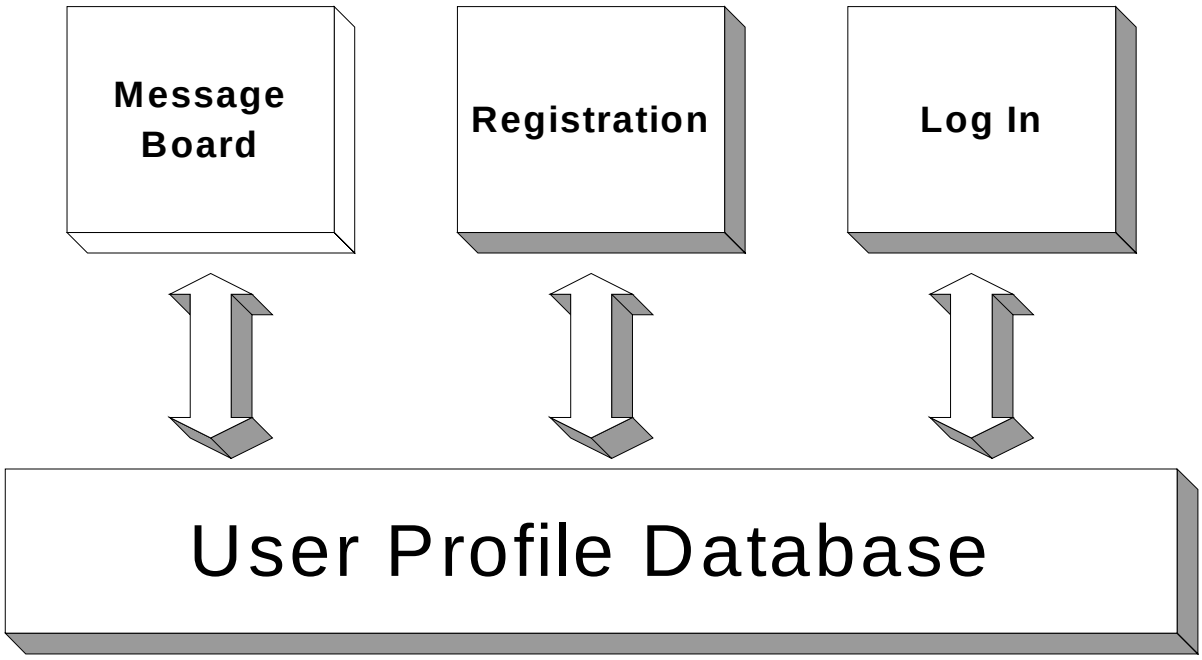
5.1 System Structure



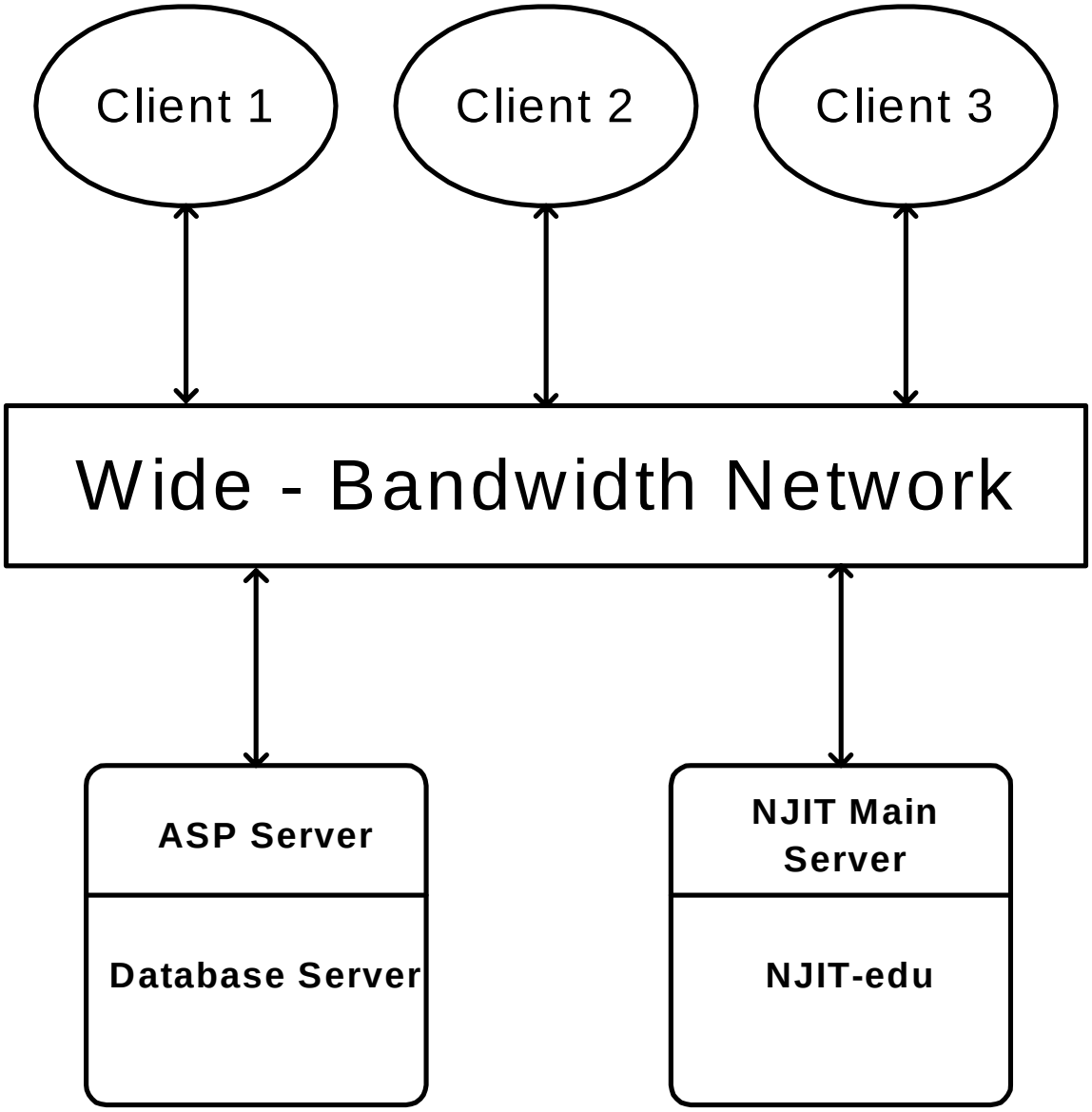
5.2 Abstract Machine Model



5.3 Repository Model



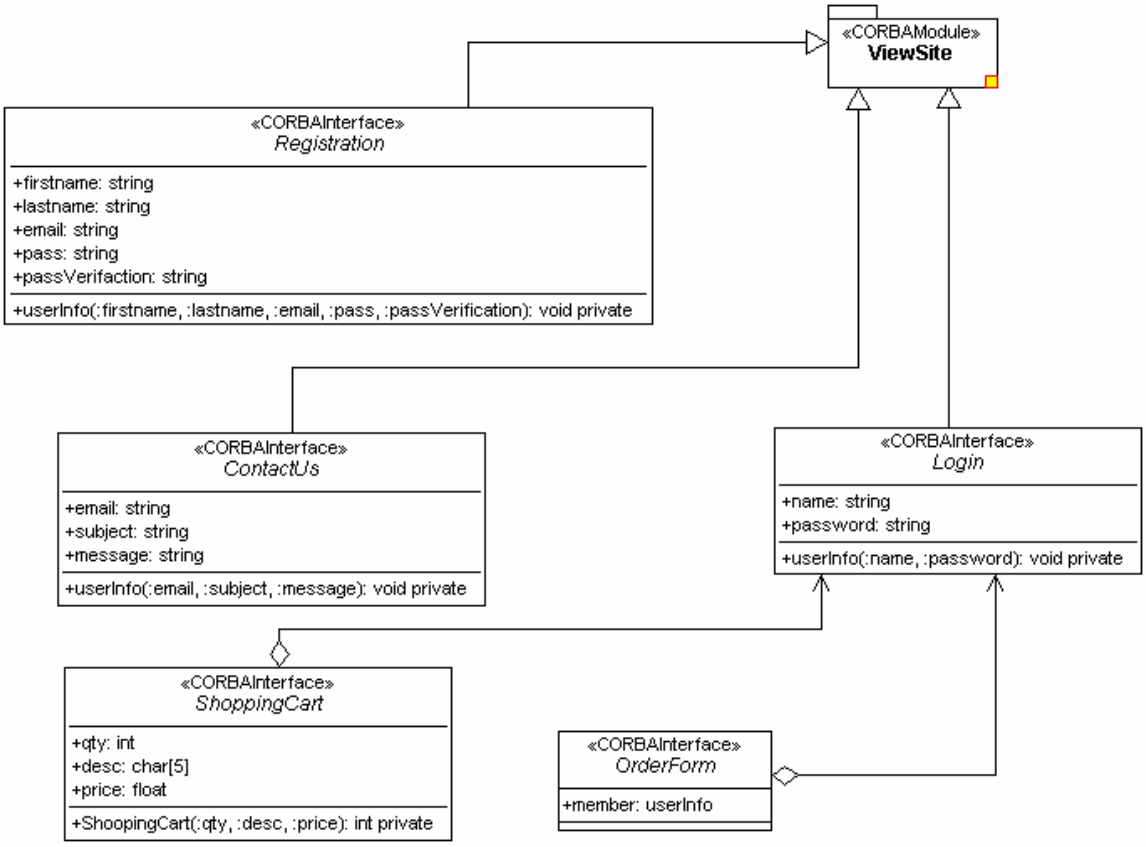
5.4 Client Server Model



6. Salsa Party Walk CORBA Diagram Models

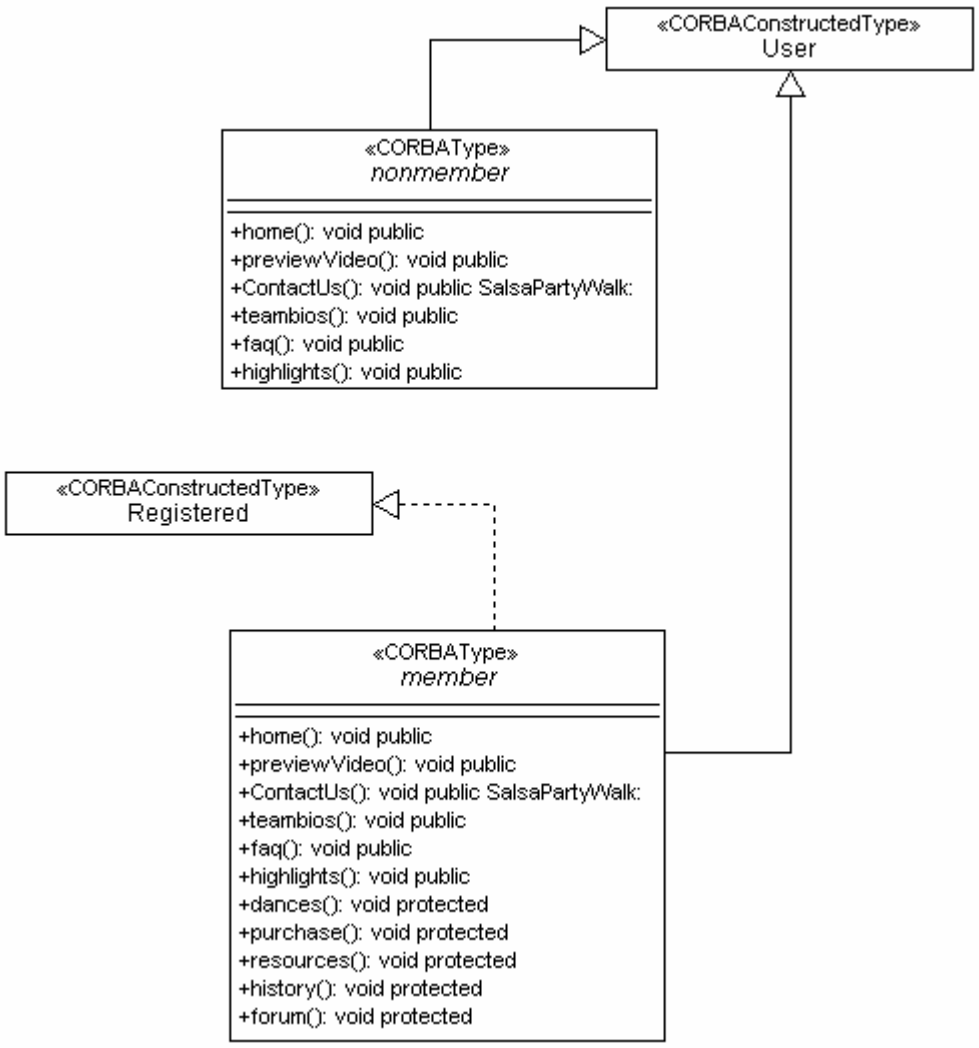
SalsaPartyWalk (public class model)

Parent: SalsaPartyWalk
Contains: Login, Registration, ContactUs, ShoppingCart, OrderForm, ViewSite.



ViewSite (public class model)

Parent: ViewSite
Contains: member, nonmember, User, Registered.



Login (package Class/Interface)

Bases: public **ViewSite**.

Methods: public **userInfo (: in name, : in password) : void private**

Get/Set:

Attributes: public **name: string**

public **password: string**

Registration (package Class/Interface)

Bases: public **ViewSite**.

Methods: public **userInfo (: in firstname, : in lastname, : in email, : in pass, : in passVerification) : void private**

Get/Set:

Attributes: public **firstname: string**

public **lastname: string**

public **email: string**

public **pass: string**

public **passVerifaction: string**

ContactUs (package Class/Interface)

Bases: public **ViewSite**.

Methods: public **userInfo (: in email, : in subject, : in message) : void private**

Get/Set:

Attributes: public **email: string**

public **subject: string**

public **message: string**

ShoppingCart (package Class/Interface)

Methods: public **ShoopingCart (: in qty, : in desc, : in price) : int private**

Get/Set:

Attributes: public **qty: int[5]**

public **desc: char[5][30]**

public **price: float[5]**

Relations: public **unnamed: --> <Login>***

OrderForm (package Class/Interface)

Get/Set:

Attributes: public **member: userInfo**

Relations: public **unnamed: --> <Login>***

ViewSite (public Package/Task)

Submodel: ViewSite

member (package Class/Interface)

Bases: public **User**.

Methods: public **home () : void public**

public **previewVideo () : void public**

public **ContactUs () : void public SalsaPartyWalk:**

public **teambios () : void public**

public **faq () : void public**

public **highlights () : void public**

public **dances () : void protected**

public **purchase () : void protected**

public **resources () : void protected**

public **history () : void protected**

public **forum () : void protected**

nonmember (package Class/Interface)

Bases: public **User**.

Methods: public **home () : void public**

public **previewVideo () : void public**

public **ContactUs () : void public SalsaPartyWalk:**

public **teambios () : void public**

public **faq () : void public**

public **highlights () : void public**

User (public Class/Interface)

Registered (public Class/Interface)

Phase V – Testing

1. Functional Test

The Functional test is used to evaluate the performance of a system against the functional requirements gather during the system analysis phase. The following table describes whether or not the functional requirements for our system have been met.

Functional Requirement	Satisfy
1. Message board must be included	Yes
2. Must contain an authentication system	Yes
3. Must contain shopping cart	Yes?
4. Must contain a frequently Asked Questions section	Yes
5. Must contain Contact Page	Yes
6. Must contain a History page for each Genre of music	Yes
7. Must contain Registration form	Yes
8. Must contain a Printable order form	Yes
9. Written explanation of moves along with pictures	Yes
10. Must contain a Team Biographies section	Yes
11. Must include Dance-related links	Yes
12. Must contain a site map	Yes
13. Using ASP for website security	Yes
14. Email validation system	Yes
15. Administrator must be able to filter messages from message board	Yes?
16. Only major credit cards companies will be accepted (MasterCard, Visa, American express)	No
17. Only a registered member can pay using a valid debit card	Yes?
18. New customers are required to register by creating a new account	Yes
19. During the registration process users are required to enter: name, user ID, password twice, and email address	Yes
20. Notification of incomplete registration	Yes
21. Non-registered users will only be able to view some videos samples only, contact us page, and the team bios.	Yes
22. User last and first name must be have maximum length of 20 characters, must be alphanumeric.	Yes
23. The Log ID and Password must both be alphanumeric characters and 12 characters long.	Yes
24. Email address (alphanumeric & max 30 characters)	Yes
25. No two users with the same user name can log into the registered area.	Yes
26. Only registered users can download videos, purchase DVD, and access additional resources	Yes

27. Registered users can fill out a printable order form	Yes

Explanation of Non-Satisfy requirements:

3. The system must contain shopping cart

- The system does contain a shopping cart, which allows users to select any amount of DVD for purchase, but because of financial difficulties the backend of the shopping cart is not functional since we could not afford the merchant license.

14. There is an e-mail validation system in the register form to make sure the users enter a correct e-mail address

15. The Administrator must be able to filter messages from message board

- The administrator is able to delete message posted on the message board, but it must be done through the back-end. Meaning that the administrator has to go into the database and physically remove the messages, there if no option in the front-end designs to remove messages.

16. Only major credit cards companies will be accepted (MasterCard, Visa, American express)

- Because the shopping cart is not fully functional, because of financial reasons previously explained, the account system is not connected to any credit card company
- If the shopping cart was fully functional this requirement would have been met, our system would only accept major credit card to avoid fraud or other problems

17. Only a registered member can pay using a valid debit card

- In our system only register members have access to the shopping cart that would allow them to purchase the DVD
- Currently the shopping cart cannot validate credit cards; therefore all credit cards are accepted.

Overall the system developed meets most important requirements. The main features required by the users were included, such as the FAQ section, message board, videos, written description of moves, and other resources. The web site provides and extensive array of moves that users can learn from. The quality of the videos and other content was positively rated as explained in the acceptance test. The system itself received a good evaluation from the users; therefore the missing features did not impact our success. In the future when the time and financial challenges no longer exist the system will be updated and will include all the features mention in the original design.

2. Performance Test

The Performance test of a system has to answer the following question, "Are the non-functional requirements met?" To answer this question a survey was given out to 50 individuals, then the results were analyzed to determine their satisfaction. This only tested some of the non-functional requirements, therefore to test the remaining requirements the system had to be thoroughly examined by the system analyst.
The following is a list of the Non-Functional requirements and an explanation on how our system satisfies these requirements.

Non-Functional Requirement	**Satisfy**
1. Clear Video Images	Yes
2. Footwork and hand positioning need to be emphasized	Yes

3. Synchronization of steps and music	Yes
4. User-friendliness of videos	Yes
5. Reducing download time for videos	Yes
6. HTML, JavaScript, Flash, and XML used to reduce download time (of web page)	Yes
7. Reduce download time of page by using less pictures (graphics)	Yes
8. Good organization layout of website (good navigation)	Yes
9. ASP host must be fast and reliable	Yes
10. Website must incorporate fresh look (pictures, colors, and up-to-date music)	Yes
11. Must accommodate different learning styles	Yes
12. Must accommodate various forms of payment	Yes
13. Moves should be broken down into respective levels for expertise	Yes
14. Must contain highlights of events and updates	Yes
15. Must incorporate a naming convention for file names	Yes

1. Clear Video Images: To test this non-functional requirement the following statement was included on the survey: “The images clearly depicted each of the moves”

Frequencies

Statistics

Clear Video Images

N	Valid	50
	Missing	0

Clear Video Images

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<10%	1	2.0	2.0	2.0
	10-30%	1	2.0	2.0	4.0
	30-50%	18	36.0	36.0	40.0
	50-70%	18	36.0	36.0	76.0
	70-90%	8	16.0	16.0	92.0
	>90%	4	8.0	8.0	100.0
	Total	50	100.0	100.0	

After obtaining the frequency by using SPSS of results for the above statement as shown below, it was determined that the 40% of our users are not satisfied with the clarity of our

images, while the other 60% are satisfy. This tell us that we if we want to satisfy all of our customers we have to improve the quality of our videos in the next version of our project. On the other hand since the videos shown in the website are only suppose to be teasers to get the users to purchase the DVD the quality of the videos would remain the same. We might also keep the same video because if the quality improves the download time will increase. Overall since 60% of our customers are satisfied with the videos, in this version, they will remain the same.

2. Footwork and hand positioning need to be emphasized: To test this requirement the users of our system were ask to evaluate their satisfaction. This statement was included on the survey. “Footwork and hand-positioning are emphasize in the videos"

Frequencies

Statistics

Footwork and hand positioning

N	Valid	50
	Missing	0

Footwork and hand positioning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10-30%	7	14.0	14.0	14.0
	30-50%	9	18.0	18.0	32.0
	50-70%	22	44.0	44.0	76.0
	70-90%	12	24.0	24.0	100.0
	Total	50	100.0	100.0	

68% of the people that responded to our survey are satisfied with the emphasis of footwork and hand positioning in our videos, therefore our project has satisfy this requirement, although there is always room for more improvement.

3. “Synchronization of steps and music” was another non-functional requirement. This requirement is satisfy in the DVDs since the dancers perform the moves to the rhythm of Latin music. On the other hand, this requirement was not satisfy in the web site since the video size will increase dramatically if sound was also included. This decision was taken since the main goal of our project is to keep download time to a minimum. To make up for this, the users have the option of playing a song by clicking a “Music On” button located in the main page.

4. The user-friendliness of videos was tested by asking the user to rate the following statements:

Video Quality
The video size was large enough to get a good visual of the moves
The images clearly depicted each of the move
Footwork and hand-positioning are emphasize in the videos
The type of instructions used in the videos were effective

Frequencies

Statistics

Quality of Videos

N	Valid	50
	Missing	0

Quality of Videos

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.67	1	2.0	2.0	2.0
	2.67	2	4.0	4.0	6.0
	3.00	1	2.0	2.0	8.0
	3.17	7	14.0	14.0	22.0
	3.33	3	6.0	6.0	28.0

	3.50	1	2.0	2.0	30.0
	3.67	4	8.0	8.0	38.0
	3.83	5	10.0	10.0	48.0
	4.00	5	10.0	10.0	58.0
	4.17	2	4.0	4.0	62.0
	4.33	5	10.0	10.0	72.0
	4.50	4	8.0	8.0	80.0
	4.67	2	4.0	4.0	84.0
	4.83	1	2.0	2.0	86.0
	5.00	2	4.0	4.0	90.0
	5.17	1	2.0	2.0	92.0
	5.33	1	2.0	2.0	94.0
	5.50	1	2.0	2.0	96.0
	5.83	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

The analysis as attached above shows that the users have a wide range of responses when it comes to video quality and therefore video user-friendliness. 52% of the respondents stated that they agree with the quality of the videos and the other 48% did not agree. This once again tells us that the video quality needs to improve, but only if the main focus of our project is to have videos with perfect quality. This is not the goal of our project; the goal was to minimize download time and to sell DVDs. The download time of videos has decreased dramatically. Therefore the users can get taste of some the moves included in our DVD, which has videos of excellent quality since they are no longer vectorized.

5. The download time for videos was reduced by vetorizing them.

6. The following languages were used in the design the implementation of the website: HTML, JavaScript, Flash, and XML

7. Very few pictures are used throughout the website to keep the download time to a minimum. The only section that has a considerable amount of pictures is the move

explanations. Although this increases the download time, it was imperative to include the still images of the moves so that the users can fully comprehend the moves.

8. The organizational layout or layout structure was tested by asking the user to rate the following statements:

Layout Structure
The main content of the page is in a centralized location
The layout of the text is consistent throughout all the pages
The overall look of the website is consistent
The graphics used in each page makes the layout consistent
The colors used give the site a consistent look
The color of text made the content easy to read
The size of the text made the content easy to read
The style of the text made the content easier to read
The size of the graphics is appropriate
The location of the graphics contribute to the effectiveness of the web site
The use of graphics aided in understanding the content of the web site
The graphics provided on the web site are of good quality

Frequencies

Statistics

Layout Structure

N	Valid	50
	Missing	0

Layout Structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.98	1	2.0	2.0	2.0
	4.00	1	2.0	2.0	4.0
	4.04	1	2.0	2.0	6.0
	4.08	1	2.0	2.0	8.0
	4.17	1	2.0	2.0	10.0
	4.19	1	2.0	2.0	12.0
	4.27	1	2.0	2.0	14.0

	4.29	1	2.0	2.0	16.0
	4.35	1	2.0	2.0	18.0
	4.38	2	4.0	4.0	22.0
	4.44	2	4.0	4.0	26.0
	4.48	1	2.0	2.0	28.0
	4.48	1	2.0	2.0	30.0
	4.50	4	8.0	8.0	38.0
	4.54	1	2.0	2.0	40.0
	4.56	1	2.0	2.0	42.0
	4.58	2	4.0	4.0	46.0
	4.63	2	4.0	4.0	50.0
	4.67	1	2.0	2.0	52.0
	4.69	3	6.0	6.0	58.0
	4.73	1	2.0	2.0	60.0
	4.75	2	4.0	4.0	64.0
	4.81	1	2.0	2.0	66.0
	4.85	1	2.0	2.0	68.0
	4.85	2	4.0	4.0	72.0
	4.88	1	2.0	2.0	74.0
	4.92	1	2.0	2.0	76.0
	4.94	1	2.0	2.0	78.0
	4.96	1	2.0	2.0	80.0
	5.00	1	2.0	2.0	82.0
	5.02	1	2.0	2.0	84.0
	5.10	1	2.0	2.0	86.0
	5.17	1	2.0	2.0	88.0
	5.19	1	2.0	2.0	90.0
	5.25	1	2.0	2.0	92.0
	5.42	2	4.0	4.0	96.0
	5.50	1	2.0	2.0	98.0
	5.63	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

As shown in the above tables the people interviewed have diverse feeling on layout structure. But 98% of the users agree with the layout structure the layout and only 2% disagree. This proves that we have met this requirement.

9. ASP host must be fast and reliable was another requirement. Although we aim to please our users and meet our goals this requirement is out of our hands. We are

using a free ASP server, due to financial constraints; therefore have little to do with the performance of the server.

10. . Website must incorporate fresh look (pictures, colors, and up-to-date music). To test this requirement users were asked to rate the use of color and video quality of our site. We did not test up-to-date music since there is only one song included in the web site.

Frequencies

Statistics

Use of Color

N	Valid	50
	Missing	0

Use of Color

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	1	2.0	2.0	2.0
	3.67	2	4.0	4.0	6.0
	4.00	9	18.0	18.0	24.0
	4.33	7	14.0	14.0	38.0
	4.67	6	12.0	12.0	50.0
	5.00	10	20.0	20.0	70.0
	5.33	4	8.0	8.0	78.0
	5.67	5	10.0	10.0	88.0
	6.00	6	12.0	12.0	100.0
	Total	50	100.0	100.0	

94% of the users agreed with the colors used on the website. Their answers were that they agree, strongly agree, and extremely agree with the colors; therefore this requirement has been met.

11. To accommodate different learning styles we provided the user with a video demonstrating each move. In addition to take we included still images and written instruction that break down the moves.
12. To accommodate various forms of payment the user has the option of paying with a credit card or printing a mail-in form to purchase the DVD.
13. The moves are broken down into beginner, intermediate and advance levels for each genre. This in turn accommodates the different level of expertise of our users.
14. The main page contains highlights and event updates. The highlights inform the users of the most recent updates to the web site and the event section informs the events happening in the tri-state clubs.
15. A strict naming convention was followed when videotaping the clips and uploading them to the website.

For example this were the names used for the Salsa video for the beginner level:

Level	Name of Move	File Name	Description
Beginner			
Solo	Basic	SalBegBasic	(front/back view)
	Side Basic	SalBegSideBasic	Side to side alone (front/back view)
	Basic Self Turn	SalBegSelfTurn	by yourself (front/side view)
	Cross Basic	SalBegCrossBasic	Paterson Basic (front/side view)

3. Acceptance Test

Acceptance Test is a formal test conducted to determine whether or not a system meets the users expectations. In order to determine if our system satisfies the acceptance criteria of the users we distributed a questionnaire to 50 individuals. The format of the questionnaire was as follow: a statement regarding one of the variables was provided and then the interviewee was asked to check of an appropriate response. The acceptable responses were Extremely Disagree, Strongly Disagree, Disagree, Agree, Strongly Agree, and Extremely Agree.

To develop the questionnaire we first read and analyze literature reviews related to web site design and user satisfaction. Then the following process was followed to develop the survey.

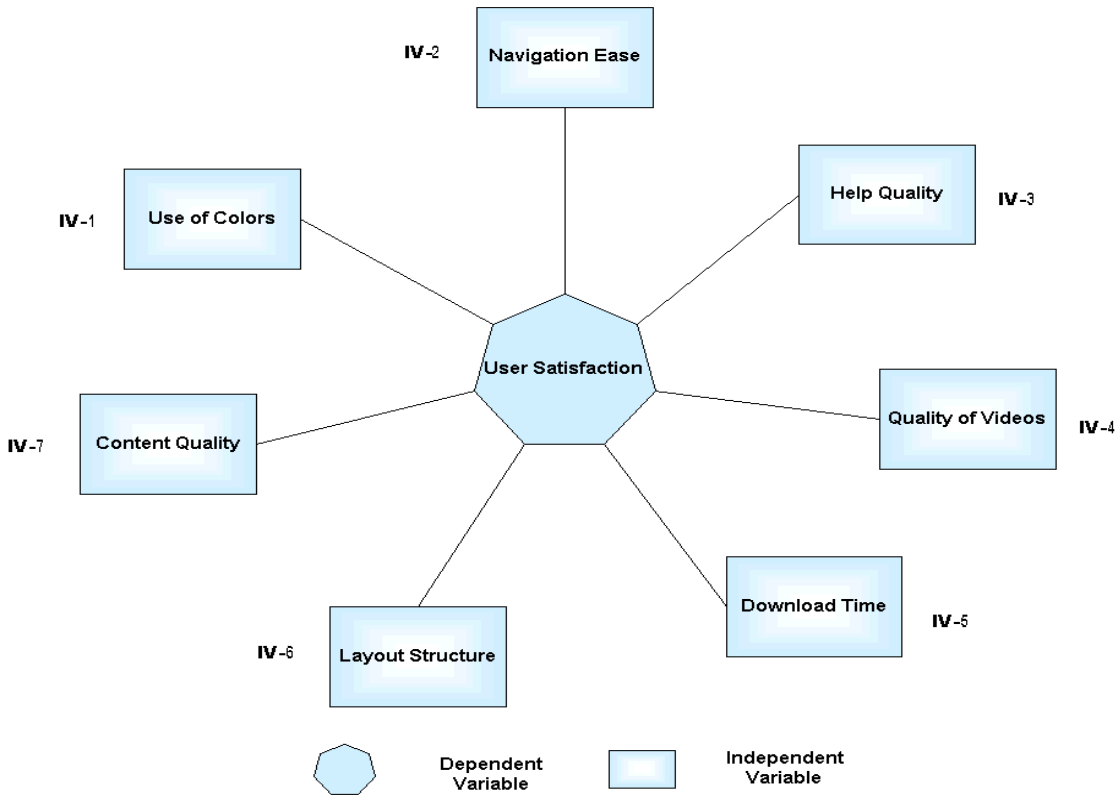
1. The main goal of the survey was determined:

To obtain a subjective measurement of the users' satisfaction with our system

2. The dependent variable was extracted from the main goal, which is "User Satisfaction"

3. The independent variables were then determined from the definition of user satisfaction.

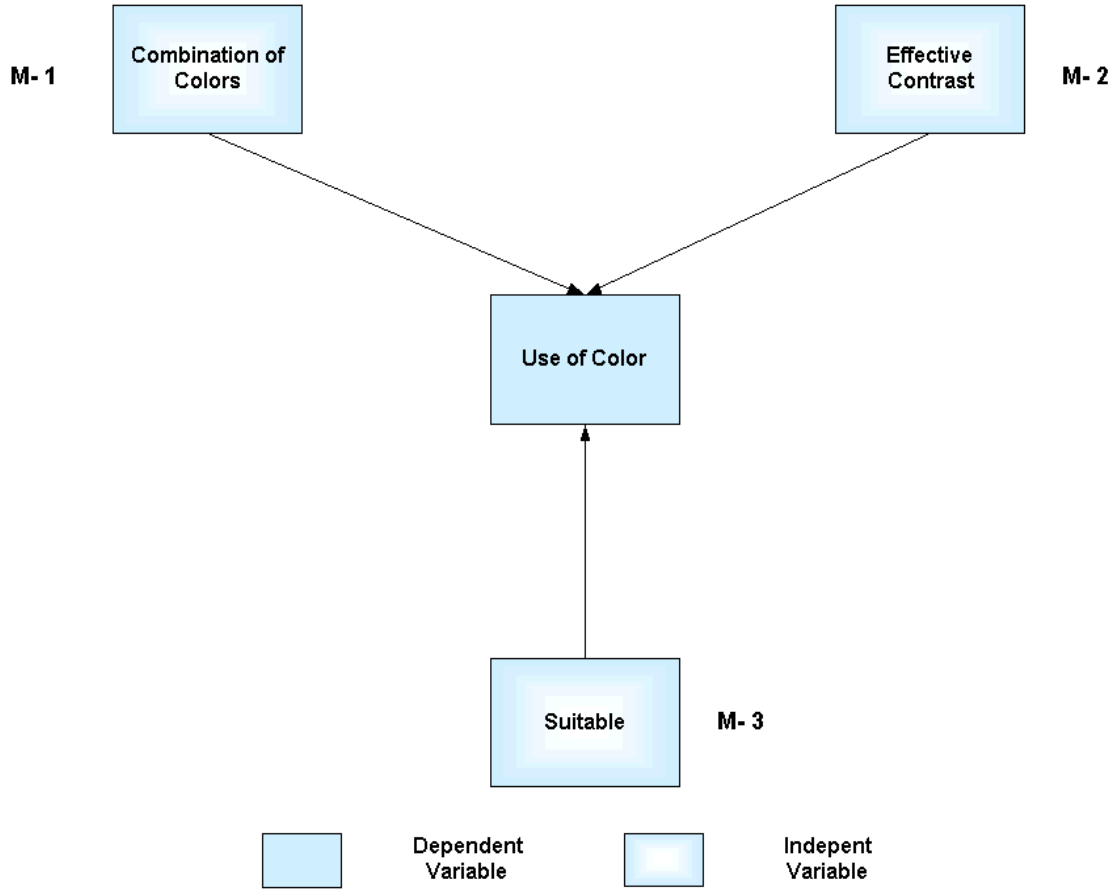
"Overall satisfaction encompasses every aspect of the offering from the user's viewpoints."



4. The independent variables were further decomposed by obtaining their definitions and then applying those same definitions to our system.

4.1 **Use of Color:** "the goal is to present information. It has to be legible"

- "The primary concern with color is that there be a significant, but not jarring, contrast between the background and the foreground 'palette' of color"

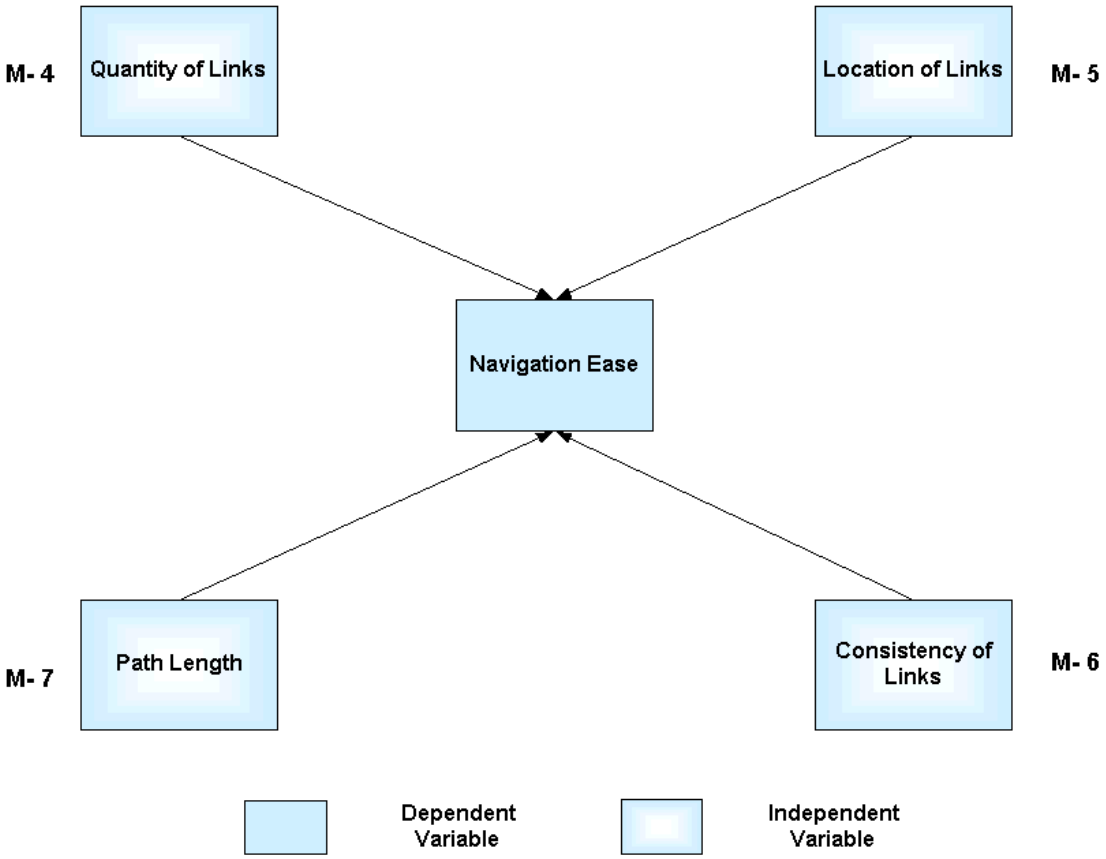


4.1.1 From these variables the following statements were obtain:

- The text is visible against the background color
- The colors are suitable for the page content and purpose
- The combination of blue, light blue and white made the website more presentable

4.2 **Navigation Ease:** it refers to the "organization of the page or site". "Is the use of text and images (or any other method) to guide a user through your site. It's a way to connect the different parts of your site and help the user choose where to go."

- Path Length: "Users want to get in, get the information, and get out. They should be able to find anything on your site in just three clicks"
- Location of Links: "Consistent site design goes a long way toward making your site easily navigable"
- Location of Links: "Don't make you visitors look for links, differentiate then from the rest of your site"
- Quantity: "should be placed in every page"

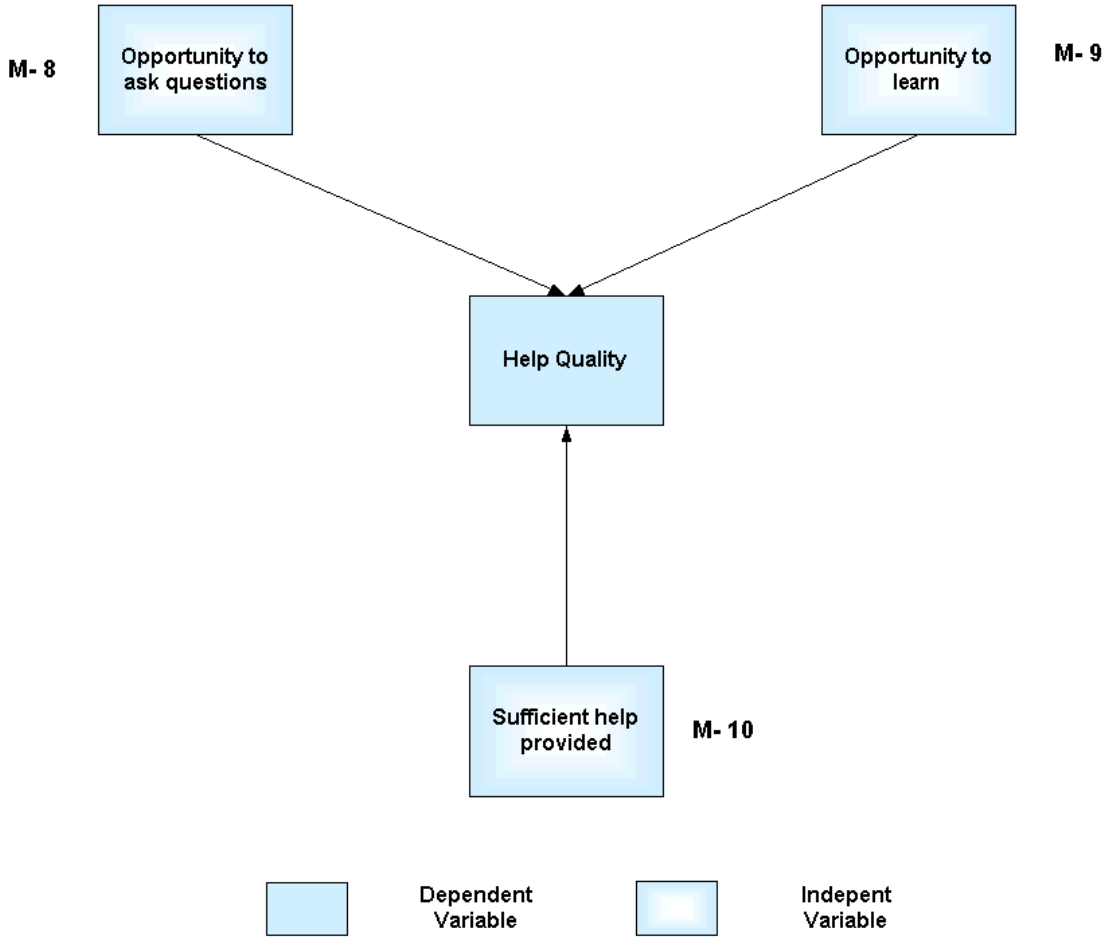


4.2.1 After breaking down Navigation Ease other independent variables the following statements were obtain:

- There are enough links in the web site
- The location of the links help me navigate the site better
- The amount of links you have to click on before you get to your desired location is not excessive

- The location of the links is consistent throughout the page

4.3 **Help Quality**: This variable test the quality of the help provided by our web site to the users.



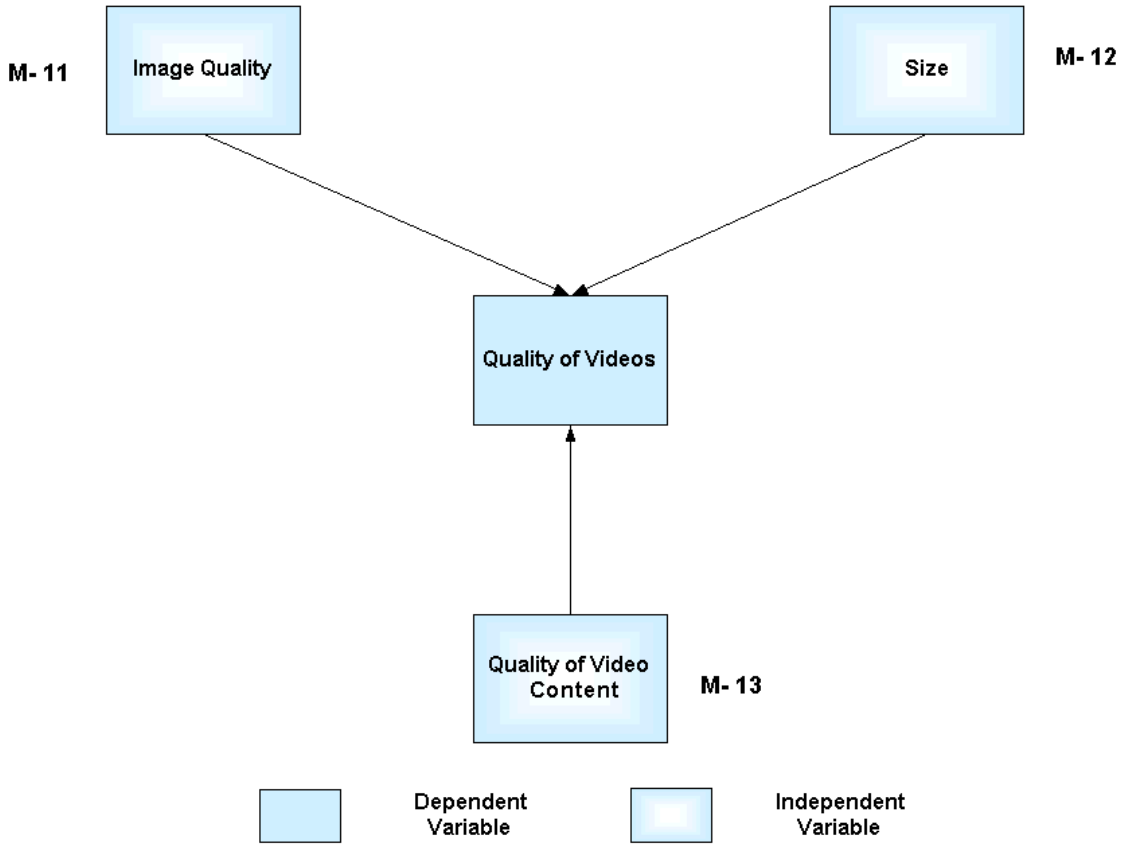
4.3.1 From these variables the following statements were obtain:

- *To learn more:*
  - The resources section allowed me to look up information on other dances

- *Sufficient help provided:*
  - The Frequently Asked Questions section answered questions that I had about the website

- *Opportunities to ask questions:*
  - The Contact Us page gave me the opportunity to ask additional questions
  - The Message Board made it easy to look up any questions I had

4.4 Quality of Videos: This variable test the viewpoint of the users towards the quality of the graphics which include the following variables:

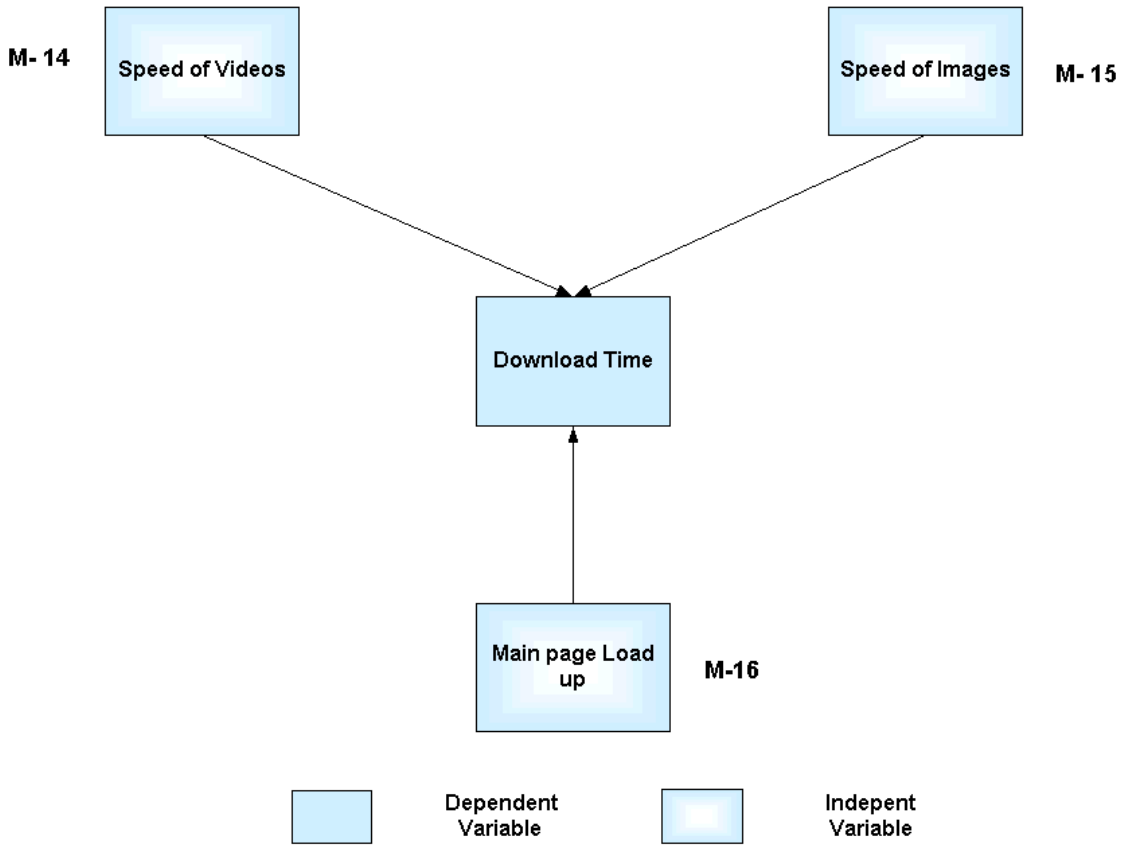


4.4.1 The variable decomposition produced the following statements:

- The video size was large enough to get a good visual of the moves
- The images clearly depicted each of the moves
- Footwork and hand-positioning are emphasize in the videos
- The type of instructions used in the videos were effective

4.5 Download Time: is the amount time the users have to wait to get a response after they have selected an option

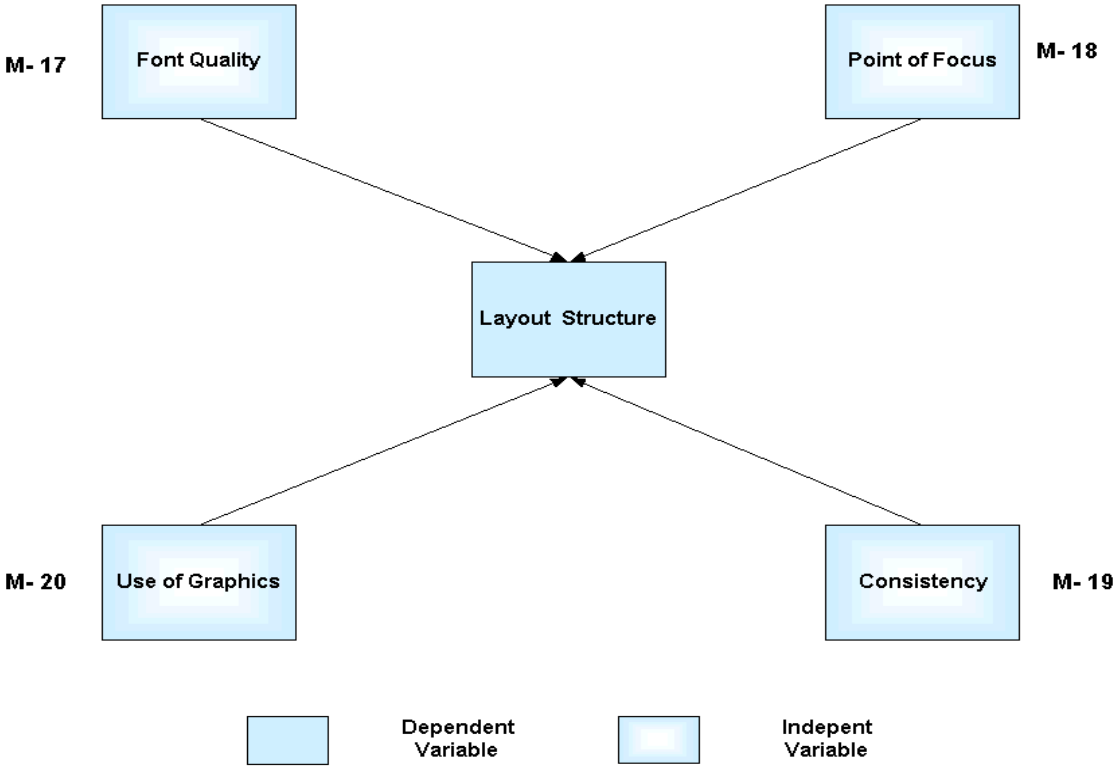
- Some of the recommendations obtain from literature reviews are the following
  - "keep graphic files slow"
  - "if your graphics are too large people will turn them off or jump to another site"



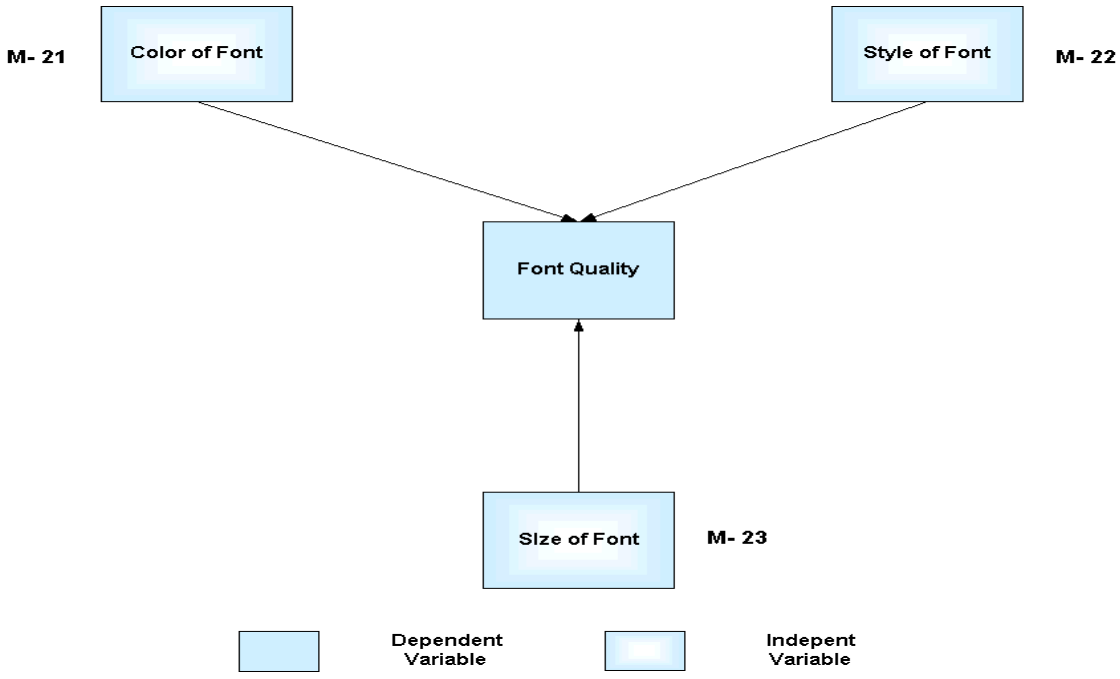
4.5.1 From these variables the following statements were obtain:

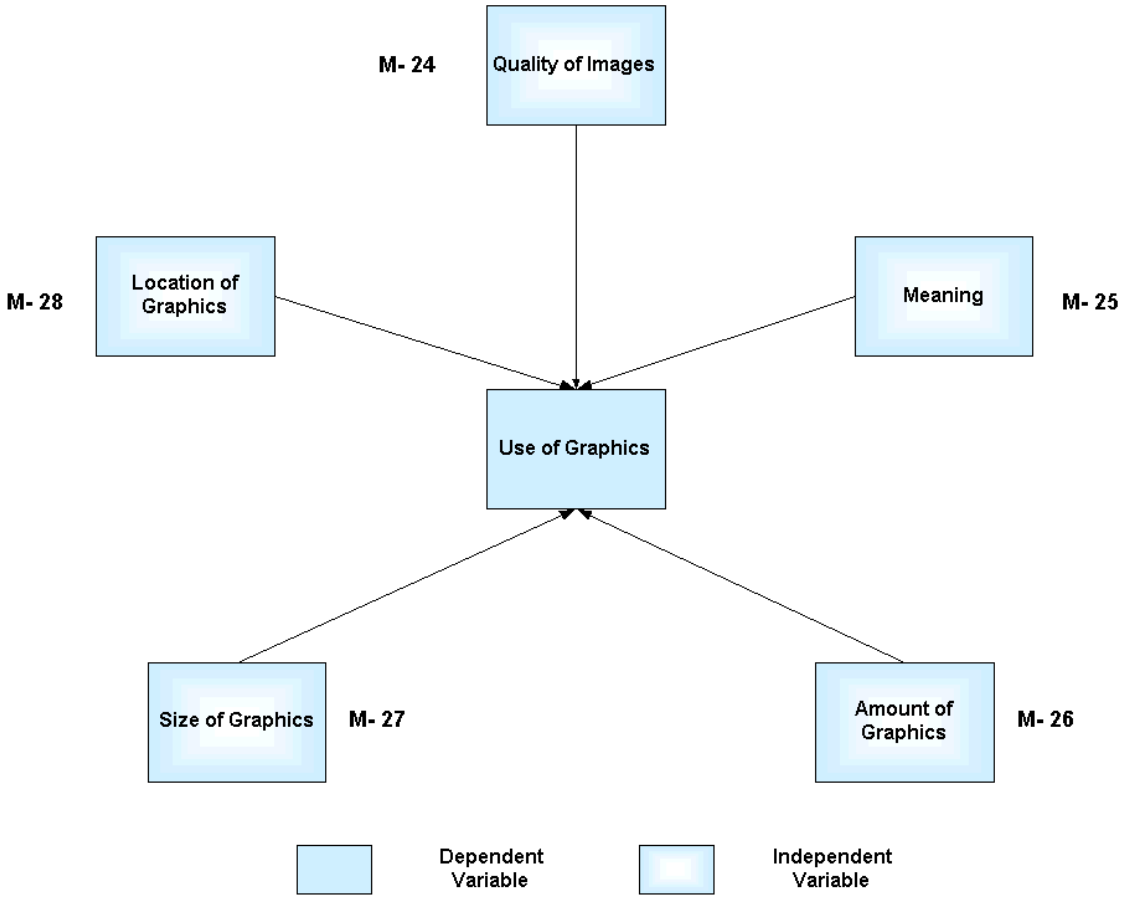
- I did not have to wait a long time for the download of the videos
- I did not have to wait a long time for the download of the images
- I did not have to wait a long time for the web page to load up

4.6 Layout Structure: is what makes a page effective and legible. It is directly related to the Typeface (color, size, style).



4.6.1 Font Quality and Use of Graphics was further decompose:





4.6.2 After the decomposition of all the variables the following statements were obtain:

- The main content of the page is in a centralize location

- *Consistency:*
  - The layout of the text was consistent in all pages
  - The overall look of the pages is consistent
    The graphics used in each page made the layout consistent
  - The colors used give a consistent look to the site

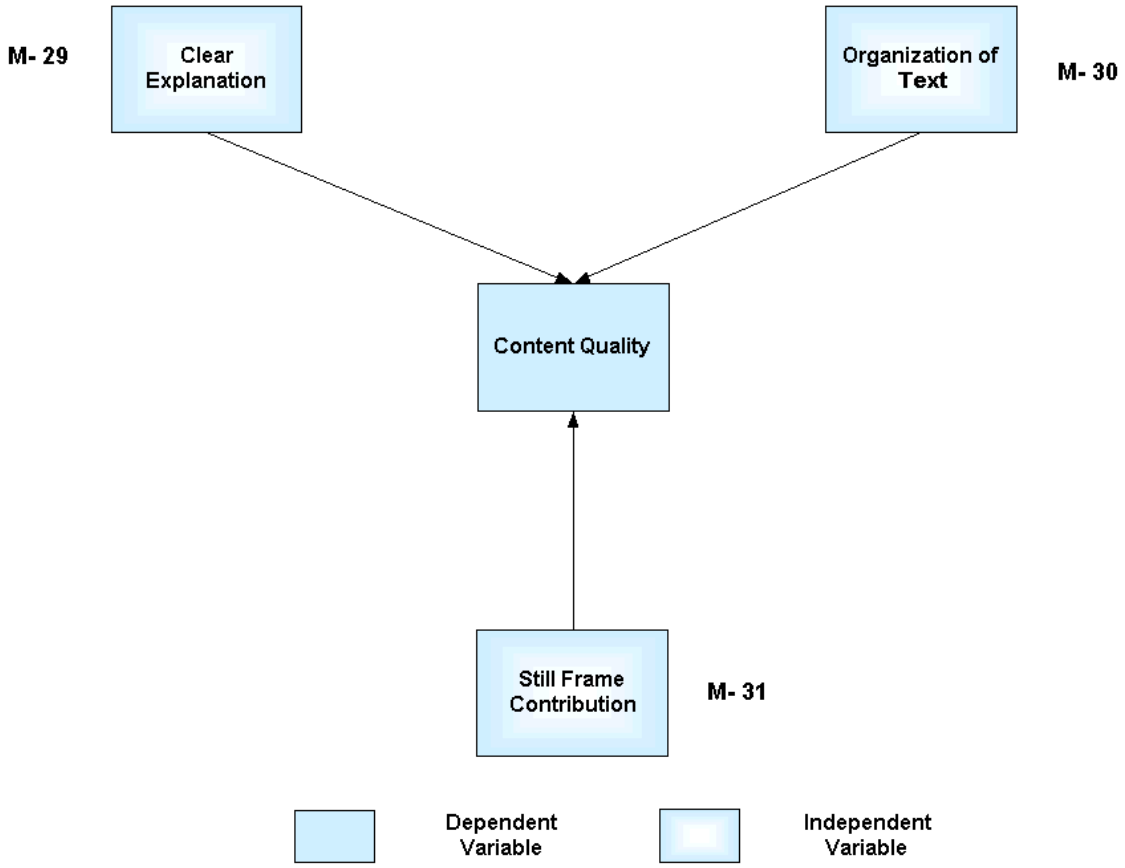
- *Font Quality:*
  - The color of text made it easy to read the content
  - The size of text made is easy to read content
  - The style (times new roman, bold, underline, etc.) of the text made it easier to read

- *Use of Graphics:*
  - The size of the graphics is appropriate

- The location of the graphics contributed to the effectives of the web site
- The use of graphics aided in understanding the content in the web site
- The graphics provided on web site were of good quality
- The amount of graphics was sufficient

4.7 **Content Quality:** Deals with the explanation of the moves, history and other content in the web site.

- This variable was further breakdown after the suggestion of some literature reviews:
  - "All text and no graphics make for a very dull page."
  - "Provide *useful* information"
  - "Include Dynamic Content"



4.7.1 After the breakdown of all the dependent variable, in this case content quality, the following statements were developed:

- The step-by-step description of the moves are explained clearly
- The organizational layout of the moves is appropriate
- The still frames of the moves contribute to the overall understanding of the step-by-step instructions

After the decomposition of all the variables the following Questionnaire was developed:

User Satisfaction Questionnaire for SalsaPartyWalk.com

Using the chart below please check the answer that best describes how you feel.

ED	Extremely Disagree
SD	Strongly Disagree
D	Disagree
A	Agree
SA	Strongly Agree
EA	Extremely Agree

Statement	**ED**	**SD**	**D**	**A**	**SA**	**EA**
Layout Structure						
1. The main content of the page is in a centralized location						
2. The layout of the text is consistent throughout all the pages						
3. The overall look of the website is consistent						
4. The graphics used in each page makes the layout consistent						
5. The colors used give the site a consistent look						
6. The color of text made the content easy to read						
7. The size of the text made the content easy to read						
8. The style of the text made the content easier to read						
9. The size of the graphics is appropriate						
10. The location of the graphics contribute to the effectiveness of the web site						
11. The use of graphics aided in understanding the content of the web site						
12. The graphics provided on the web site are of good quality						
13. The amount of graphics was sufficient						
Navigation Ease						
14. There are enough links in the web site						
15. The location of the links help me navigate the site better						
16. The amount of links you have to click on before you get to your desired location is not excessive						
17. The location of the links is consistent throughout the page						
Use of Color						
18. The text is visible against the background color						

19. The colors are suitable for the page content and purpose						
20. The combination of blue, light blue and white made the website more presentable						
Content Quality						
21. The step-by-step description of the moves are explained clearly						
22. The organizational layout of the moves is appropriate						
23. The still frames of the moves contribute to the overall understanding of the step-by-step instructions						
Help Quality						
24. The resources section allowed me to look up information on other dances						
25. The Frequently Asked Questions section answered questions that I had about the website						
26. The Contact Us page gave me the opportunity to ask additional questions						
27. The Message Board made it easy to look up any questions I had						
Video Quality						
28. The video size was large enough to get a good visual of the moves						
29. The images clearly depicted each of the move						
30. Footwork and hand-positioning are emphasize in the videos						
31. The type of instructions used in the videos were effective						
Download Time						
32. I did not have to wait a long time for the download of the videos						
33. I did not have to wait a long time for the download of the images						
34. I did not have to wait a long time for the web page to load up						
User Satisfaction						
35. I would most likely come back to this web site						
36. I would refer this page to my friends						
37. I think that it is possible to learn how to dance using this web site						
38. I would pay money for the services provided in this web site						
39. I would purchase the DVD						

To map the variables to the questions the following table was developed:

Variable Name	**Measure**	**Questions**
User Satisfaction	IV-1, IV-2, IV-3, IV-3, IV-4, IV-5, IV-6, IV-7	
Use of Color (IV-1)	M-1, M-2, M-3	18, 19, 20
Navigation Ease (IV-2)	M-4, M-5, M-6, M-7	14, 15, 16, 17
Help Quality (IV-3)	M-8, M-9, M-10	24,25, (26,27)
Quality of Videos (IV-4)	M-11, M-12, M-13	28, 29, (30, 31)
Download Time (IV-5)	M-14, M-15, M-16	32, 33, 34
Layout Structure (IV-6)	M-17, M-18, M-19, M-20	1, (2,3,4,5), (6,7,8), (9,10,11,12,13)
Content Quality (IV-7)	M-29, M-30, M-31	20, 21, 22
User Satisfaction	Not measure by independent variables	35,36,37,38,39
Combination of Colors (M-1)		18
Effective Contrast (M-2)		19
Suitable (M-3)		20
Quantity of Links (M-4)		14
Location of Links (M-5)		15
Consistency of Links (M-6)		17
Path Length (M-7)		16
Opportunity to ask questions (M-8)		24
Opportunity to learn (M-9)		25
Sufficient help provided (M-10)		26, 27
Image Quantity (M-11)		25
Size (M-12)		24
Quality of video content (M-13)		30,31
Speed of Videos (M-14)		32
Speed of Images (M-15)		33
Main page load up (M-16)		34
Font Quality (M-17)	M-21, M-22, M-23	6,7,8
Point of Focus (M-18)		1
Consistency (M-19)		2, 3, 4, 5
Use of Graphics (M-20)	M-24, M-25, M-26, M-27, M-28	9, 10, 11, 12
Color of Font (M-21)		6
Style of Content (M-22)		8
Size of Font (M-23)		7
Quality of images (M-24)		12
Meaning (M-25)		11
Amount of graphics (M-26)		13
Size of graphics (M-27)		9
Location of Graphics (M-28)		10
Clear Explanation (M-29)		21

Organization of Text (M-30)		22
Still Frame contribution (M-31)		23

3.1 SPSS

Reliability

```
 ****** Method 1 (space saver) will be used for this analysis ******
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  R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   (A L P H A)


Reliability Coefficients

N of Cases =     50.0                    N of Items =  8

Alpha =    .7279
```

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Layout Structure	50	3.98	5.63	4.6838	.38982
Download Time	50	4.00	6.00	5.1000	.65031
Quality of Videos	50	1.67	5.83	3.9867	.83696
Help Quality	50	3.83	5.67	4.5033	.44986
Content Quality	50	3.33	6.00	4.6400	.63475
Navigation Ease	50	3.75	5.75	4.6250	.52306
Use of Color	50	3.00	6.00	4.8067	.74411
User Satisfaction	50	2.80	5.60	4.3320	.62936
Valid N (listwise)	50				

Frequencies

Statistics

		Layout Structure	Download Time	Quality of Videos	Help Quality	Content Quality	Navigation Ease	Use of Color	U Satis
N	Valid	50	50	50	50	50	50	50	
	Missing	0	0	0	0	0	0	0	

Frequency Table

Layout Structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.98	1	2.0	2.0	2.0
	4.00	1	2.0	2.0	4.0
	4.04	1	2.0	2.0	6.0
	4.08	1	2.0	2.0	8.0
	4.17	1	2.0	2.0	10.0
	4.19	1	2.0	2.0	12.0
	4.27	1	2.0	2.0	14.0
	4.29	1	2.0	2.0	16.0
	4.35	1	2.0	2.0	18.0
	4.38	2	4.0	4.0	22.0
	4.44	2	4.0	4.0	26.0
	4.48	1	2.0	2.0	28.0
	4.48	1	2.0	2.0	30.0
	4.50	4	8.0	8.0	38.0
	4.54	1	2.0	2.0	40.0
	4.56	1	2.0	2.0	42.0
	4.58	2	4.0	4.0	46.0
	4.63	2	4.0	4.0	50.0
	4.67	1	2.0	2.0	52.0
	4.69	3	6.0	6.0	58.0
	4.73	1	2.0	2.0	60.0
	4.75	2	4.0	4.0	64.0
	4.81	1	2.0	2.0	66.0
	4.85	1	2.0	2.0	68.0
	4.85	2	4.0	4.0	72.0
	4.88	1	2.0	2.0	74.0
	4.92	1	2.0	2.0	76.0
	4.94	1	2.0	2.0	78.0
	4.96	1	2.0	2.0	80.0
	5.00	1	2.0	2.0	82.0
	5.02	1	2.0	2.0	84.0
	5.10	1	2.0	2.0	86.0
	5.17	1	2.0	2.0	88.0
	5.19	1	2.0	2.0	90.0
	5.25	1	2.0	2.0	92.0
	5.42	2	4.0	4.0	96.0
	5.50	1	2.0	2.0	98.0
	5.63	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Download Time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4.00	7	14.0	14.0	14.0
	4.33	1	2.0	2.0	16.0
	4.67	6	12.0	12.0	28.0
	5.00	18	36.0	36.0	64.0
	5.33	3	6.0	6.0	70.0
	5.67	4	8.0	8.0	78.0
	6.00	11	22.0	22.0	100.0
	Total	50	100.0	100.0	

Quality of Videos

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.67	1	2.0	2.0	2.0
	2.67	2	4.0	4.0	6.0
	3.00	1	2.0	2.0	8.0
	3.17	7	14.0	14.0	22.0
	3.33	3	6.0	6.0	28.0
	3.50	1	2.0	2.0	30.0
	3.67	4	8.0	8.0	38.0
	3.83	5	10.0	10.0	48.0
	4.00	5	10.0	10.0	58.0
	4.17	2	4.0	4.0	62.0
	4.33	5	10.0	10.0	72.0
	4.50	4	8.0	8.0	80.0
	4.67	2	4.0	4.0	84.0
	4.83	1	2.0	2.0	86.0
	5.00	2	4.0	4.0	90.0
	5.17	1	2.0	2.0	92.0
	5.33	1	2.0	2.0	94.0
	5.50	1	2.0	2.0	96.0
	5.83	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Help Quality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.83	2	4.0	4.0	4.0
	4.00	6	12.0	12.0	16.0
	4.17	7	14.0	14.0	30.0
	4.33	12	24.0	24.0	54.0
	4.50	5	10.0	10.0	64.0
	4.67	5	10.0	10.0	74.0

	4.83	5	10.0	10.0	84.0
	5.00	4	8.0	8.0	92.0
	5.50	2	4.0	4.0	96.0
	5.67	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Content Quality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.33	1	2.0	2.0	2.0
	3.67	4	8.0	8.0	10.0
	4.00	7	14.0	14.0	24.0
	4.33	9	18.0	18.0	42.0
	4.67	11	22.0	22.0	64.0
	5.00	9	18.0	18.0	82.0
	5.33	3	6.0	6.0	88.0
	5.67	4	8.0	8.0	96.0
	6.00	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Navigation Ease

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.75	3	6.0	6.0	6.0
	4.00	7	14.0	14.0	20.0
	4.25	10	20.0	20.0	40.0
	4.50	4	8.0	8.0	48.0
	4.75	9	18.0	18.0	66.0
	5.00	6	12.0	12.0	78.0
	5.25	8	16.0	16.0	94.0
	5.50	2	4.0	4.0	98.0
	5.75	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Use of Color

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	1	2.0	2.0	2.0
	3.67	2	4.0	4.0	6.0
	4.00	9	18.0	18.0	24.0
	4.33	7	14.0	14.0	38.0
	4.67	6	12.0	12.0	50.0
	5.00	10	20.0	20.0	70.0

	5.33	4	8.0	8.0	78.0
	5.67	5	10.0	10.0	88.0
	6.00	6	12.0	12.0	100.0
	Total	50	100.0	100.0	

User Satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.80	2	4.0	4.0	4.0
	3.00	1	2.0	2.0	6.0
	3.40	1	2.0	2.0	8.0
	3.60	3	6.0	6.0	14.0
	3.80	3	6.0	6.0	20.0
	4.00	6	12.0	12.0	32.0
	4.20	8	16.0	16.0	48.0
	4.40	7	14.0	14.0	62.0
	4.60	4	8.0	8.0	70.0
	4.80	6	12.0	12.0	82.0
	5.00	4	8.0	8.0	90.0
	5.20	2	4.0	4.0	94.0
	5.40	2	4.0	4.0	98.0
	5.60	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Layout Structure(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.159(a)	.025	.005	.62782

a Predictors: (Constant), Layout Structure

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.

1	Regression	.489	1	.489	1.241	.271(a)
	Residual	18.920	48	.394		
	Total	19.409	49			

a Predictors: (Constant), Layout Structure
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.132	1.081		2.896	.006
	Layout Structure	.256	.230	.159	1.114	.271

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Download Time(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.423(a)	.179	.161	.57634

a Predictors: (Constant), Download Time

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.465	1	3.465	10.431	.002(a)
	Residual	15.944	48	.332		
	Total	19.409	49			

a Predictors: (Constant), Download Time
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.247	.651		3.452	.001
	Download Time	.409	.127	.423	3.230	.002

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Quality of Videos(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.368(a)	.135	.117	.59136

a Predictors: (Constant), Quality of Videos

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.623	1	2.623	7.500	.009(a)
	Residual	16.786	48	.350		
	Total	19.409	49			

a Predictors: (Constant), Quality of Videos
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.230	.411		7.859	.000
	Quality of Videos	.276	.101	.368	2.739	.009

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Help Quality(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.409(a)	.168	.150	.58019

a Predictors: (Constant), Help Quality

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.251	1	3.251	9.659	.003(a)
	Residual	16.158	48	.337		
	Total	19.409	49			

a Predictors: (Constant), Help Quality
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.753	.834		2.103	.041
	Help Quality	.573	.184	.409	3.108	.003

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Content Quality(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.189(a)	.036	.016	.62436

a Predictors: (Constant), Content Quality

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.697	1	.697	1.788	.187(a)
	Residual	18.712	48	.390		
	Total	19.409	49			

a Predictors: (Constant), Content Quality
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.460	.658		5.259	.000
	Content Quality	.188	.141	.189	1.337	.187

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Navigation Ease(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.339(a)	.115	.097	.59814

a Predictors: (Constant), Navigation Ease

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.236	1	2.236	6.250	.016(a)
	Residual	17.173	48	.358		
	Total	19.409	49			

a Predictors: (Constant), Navigation Ease
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.443	.760		3.214	.002
	Navigation Ease	.408	.163	.339	2.500	.016

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Use of Color(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201(a)	.040	.020	.62293

a Predictors: (Constant), Use of Color

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.783	1	.783	2.018	.162(a)
	Residual	18.626	48	.388		
	Total	19.409	49			

a Predictors: (Constant), Use of Color
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.515	.582		6.045	.000
	Use of Color	.170	.120	.201	1.421	.162

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Use of Color(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201(a)	.040	.020	.62293

a Predictors: (Constant), Use of Color

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.783	1	.783	2.018	.162(a)
	Residual	18.626	48	.388		
	Total	19.409	49			

a Predictors: (Constant), Use of Color
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.515	.582		6.045	.000
	Use of Color	.170	.120	.201	1.421	.162

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Navigation Ease, Quality of Videos, Content Quality, Layout Structure, Download Time, Help Quality, Use of Color(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.587(a)	.344	.235	.55052

a Predictors: (Constant), Navigation Ease, Quality of Videos, Content Quality, Layout Structure, Download Time, Help Quality, Use of Color

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.680	7	.954	3.149	.009(a)
	Residual	12.729	42	.303		
	Total	19.409	49			

a Predictors: (Constant), Navigation Ease, Quality of Videos, Content Quality, Layout Structure, Download Time, Help Quality, Use of Color
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.118	1.219		.097	.923
	Use of Color	.068	.159	.080	.427	.672
	Layout Structure	.048	.225	.030	.212	.833

	Download Time	.323	.139	.334	2.315	.026
	Quality of Videos	.195	.110	.259	1.768	.084
	Help Quality	.313	.206	.224	1.521	.136
	Content Quality	-.064	.169	-.065	-.381	.705
	Navigation Ease	.028	.188	.023	.149	.882

a Dependent Variable: User Satisfaction

Correlations

Correlations

		Layout Structure	Download Time	Quality of Videos	Help Quality	Content Quality	Navigation Ease	Use of Color	User Satisfaction
Layout Structure	Pearson Correlation	1	.151	.077	.175	.297(*)	.316(*)	.394(**)	.159
	Sig. (2-tailed)	.	.294	.594	.225	.036	.026	.005	.271
	N	50	50	50	50	50	50	50	50
Download Time	Pearson Correlation	.151	1	.088	.196	.281(*)	.457(**)	.317(*)	.423(**)
	Sig. (2-tailed)	.294	.	.544	.171	.048	.001	.025	.002
	N	50	50	50	50	50	50	50	50
Quality of Videos	Pearson Correlation	.077	.088	1	.392(**)	.134	.239	-.095	.368(**)
	Sig. (2-tailed)	.594	.544	.	.005	.354	.095	.511	.009
	N	50	50	50	50	50	50	50	50
Help Quality	Pearson Correlation	.175	.196	.392(**)	1	.266	.360(*)	.276	.409(**)
	Sig. (2-tailed)	.225	.171	.005	.	.062	.010	.052	.003
	N	50	50	50	50	50	50	50	50
Content Quality	Pearson Correlation	.297(*)	.281(*)	.134	.266	1	.251	.647(**)	.189
	Sig. (2-tailed)	.036	.048	.354	.062	.	.079	.000	.187
	N	50	50	50	50	50	50	50	50
Navigation Ease	Pearson Correlation	.316(*)	.457(**)	.239	.360(*)	.251	1	.352(*)	.339(*)
	Sig. (2-tailed)	.026	.001	.095	.010	.079	.	.012	.016
	N	50	50	50	50	50	50	50	50
Use of Color	Pearson Correlation	.394(**)	.317(*)	-.095	.276	.647(**)	.352(*)	1	.201
	Sig. (2-tailed)	.005	.025	.511	.052	.000	.012	.	.162
	N	50	50	50	50	50	50	50	50
User Satisfaction	Pearson Correlation	.159	.423(**)	.368(**)	.409(**)	.189	.339(*)	.201	1
	Sig. (2-tailed)	.271	.002	.009	.003	.187	.016	.162	.
	N	50	50	50	50	50	50	50	50

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

3.2 Analysis

After collecting the data from the 50 users the results were analyze using SPSS, which is a type of statistical software. The first analysis that was performed with the data was the reliability test. This test determines if the population was well represented. In the analysis we obtained an alpha of .7279, which is about 73%. This means the survey covered a good portion of the population (potential customers). Even though the alpha is high it could improve by either increasing the sample size or modifying the variables to make them mutually exclusive.

The second analysis performed was the Descriptive analysis, which focuses on the mean of the results for each variable. If the mean of the variables is below 3 the variables were either not important to the study or the variables do not measure the goal of the survey correctly. In the analysis performed the mean of all the variables was close or above 4, which means that the variables were somewhat important to the goal of the survey,(to test user satisfaction), and the variables measure the goal correctly. The deviation of the mean for all the variables was below 1, which makes the mean more significant since the results are not scatted. This in turn states that most of the interviewees gave a good rating to the aspects of the web site investigated in the survey.

Although we obtained good results not all were favorable. The lowest mean obtained was the mean for the quality of videos (mean = 3.9867). This could be because the users did not agree with the quality of videos, or the variable was not measure correctly, or it is not significant to the survey's main goal. The best mean obtained was the mean for the Download Time as shown on the table above (mean = 5.1). This mean proves that we have achieved one of the most important goals of our project, which was

to minimize download time. Although most of the results were good, they do not meet up to our expectations, since we were looking for a mean of 5 or 6 for all the variables. This might be because we did not measure the variables correctly or external problems with the populations we interviewed affected the results.

The next analysis performed was the frequency analysis, which displays the percentage of people that answer a question the same way. First, the frequency of the layout structure was obtained. The results were scatted, but all range between 3.98 and 5.63. This means that most of the people interviewed at least agreed with the layout structure of the web site. 20% of the users rated the layout above 5, and the rest gave the layout a 4. This means that although the layout structure is appealing to most users there is still room for improvement.

After the frequency for the layout structure was calculated, the download time frequency was then determined. The results supported the findings of the descriptive analysis. An amazing 72% of the people interviewed rated favorably the download time of the web site. This people strongly or extremely agreed with the statements about the download time. Only 28% of the people somewhat agreed with the download time, since they gave the statements a rating of 4. Overall all the people interviewed were satisfied with the amount of time they had to wait for the website's content, images and videos to download.

Similar results were obtained when the frequency analysis was performed on the help quality. Most interviewees gave the help quality a rate of 4 and 5. This tells us that although the results were positive the help quality needs to improve to completely satisfy the users, since only 16% rated the quality of videos above 5. In frequency analysis for

the content quality the results vary more than the help quality results. The lowest responses obtain was 3.33 and the highest was a 6. Although more than 90% of the people interviewed rated the content quality above 4, 72% of these people stayed between 4 and 5. This means that content is satisfactory but not excellent, therefore in order to meet the customers' expectations the content need to improve.

The frequency analysis of the navigation ease in the website displayed favorable results. 94% of the people interviewed rated the navigation ease above 4. Although the results were good, the highest percentage (20%) is for the value 4.25 and the lowest is for the value 5.75. This means that the customers are not extremely satisfy with the navigation ease. This could be because the variable was measure wrong or not enough people were sample. Ultimately, all the external variables that could affect the results need to be investigated. After they analyzed and any errors corrected, if the results are the same, the navigation ease needs to be improve to have a higher percentage for the values between 5 and 6.

The frequency analysis for the use of color showed that 50% of the users extremely like the colors. 34% of the users at least agreed with the colors and only 6% disagree with the color. This means that most of the users were satisfy with the use of colors, therefore this aspect of the web site will probably will not be change dramatically. In our survey we also asked users about their satisfaction. The frequency analysis showed that 80% of the users were satisfied with the web site. Only 20% of the users disagreed with web site. The results were favorable, but they still need to improve, since only 18% of the users said that they were strongly satisfy with the website.

Variable	Calculated F	Tabulated F	R	R square
Layout Structure	1.241	4.04	.159	.025
Download Time	10.431	4.04	.423	.179
Quality of Video	7.5	4.04	.368	.135
Help Quality	9.659	4.04	.409	.150
Content Quality	1.788	4.04	.189	.036
Navigation Ease	6.250	4.04	.115	.097
Use of Color	2.018	4.04	.201	.040
All variables	3.149	2.24	.587	.344

The following test performed on the data was the regression analysis, and the results are shown above. From this analysis we obtained 4 important numbers: F, which is the regression indicator, numbers to obtain to calculate the tabulated F, R and R square. First, the calculated and tabulated Fs were compared to determine the relationship between the independent and dependent variables. The results were that only the layout structure, content quality, and use of color were not related to the user satisfaction because the Tabulated F is bigger than the calculated F. These results might be inaccurate because of external reasons, such as the sample size was too small, bias results, or because the variables did not measure user satisfaction accurately. The other variables, quality of videos, download time, help quality, and navigation ease, all are related to the user satisfaction since the calculated F for each variable is bigger than the tabulated F.

The other numbers obtain from this requirement was R, which determines if the independent variable is correlated to dependent variable. Since all the Rs for all the variables are positive that means that as the variables go up in effectiveness the user satisfaction will also increase, and vice versa if they go down in quality the user

satisfaction will decrease. The closer R is to zero the less correlation exists between two variables. The smallest correlations that exist are between the use satisfaction and the following variables layout structure, content quality and navigation ease. These results are also supported by the R square, which indicates to what extent an independent variable is capable of explaining the changes in the dependent variable. The R square for layout structure is only 2.5%, for content quality is 3.6% and for use of color it is 4%. This means that the previously mentioned variables do not explain to a great degree the changes in user satisfaction. The other variables such as download time, quality of videos, help quality, and navigation ease only explain between 10%-18% of the changes in the variables. Overall of the variables only explained 34.4% of the changes in user satisfaction.

After completing the manual stepwise regression test the following table was obtained:

Variable	**R square**
Download time	17.9%
Help Quality	15%
Quality of Videos	13.5%
Navigation ease	9.7%
Use of Color	4%
Content Quality	3.6%
Layout Structure	2.5%

This table lists from highest to lowest the explanation power of each variable. As shown here the highest variable only explains about 18% of the changes in users satisfaction. Most of the R squares are low meaning that they don't explain a lot of the changes the dependent variable. This might be because of the results obtained in correlation analysis.

In the correlation analysis we see that a lot of the variables are correlated. The most significant number in the correlation chart is .647 which is the correlation between content quality and use of color. After pluging this number in the VIF equation

$$VIF = 1/(1-r^2)$$

which gives the multicolinearity of the variables we see that many of the variables are mutually exclusive. The VIF between the content quality and the use of color is 1.72 which indicated that both of these variables are mutually exclusive. Although there are many examples like this, some variables are not mutually exclusive and this might be one of the problems causing discrepancies the rest of the analysis.

In an attempt to modify the data and obtain better results the variables that were related were group. Layout structure and use of color were grouped together to form appearance. Content quality and help quality were group together to form content effectiveness. Finally, download time and quality of videos were group together to develop the new variable called new quality of videos and navigation ease remained the same. The new data obtained from these variables was analyzed and compared to the previous results.

3.3 SPSS for new variables

Reliability

```
 ****** Method 1 (space saver) will be used for this analysis ******
_

  R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   (A L P H A)


Reliability Coefficients

N of Cases =     50.0                    N of Items =  5

Alpha =    .7463
```

Frequencies

Statistics

		Navigation Ease	Apperance (layout structure & use of color)	Content Effectiveness(content quality & help quality)	New Quality of videos(download time & quality of videos)	User Satisfaction
N	Valid	50	50	50	50	50
	Missing	0	0	0	0	0

Frequency Table

Navigation Ease

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.75	3	6.0	6.0	6.0
	4.00	7	14.0	14.0	20.0
	4.25	10	20.0	20.0	40.0
	4.50	4	8.0	8.0	48.0
	4.75	9	18.0	18.0	66.0
	5.00	6	12.0	12.0	78.0
	5.25	8	16.0	16.0	94.0
	5.50	2	4.0	4.0	98.0
	5.75	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Apperance (layout structure & use of color)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.93	2	4.0	4.0	4.0
	3.99	1	2.0	2.0	6.0
	4.08	1	2.0	2.0	8.0
	4.14	1	2.0	2.0	10.0
	4.17	1	2.0	2.0	12.0
	4.18	1	2.0	2.0	14.0
	4.19	1	2.0	2.0	16.0
	4.22	1	2.0	2.0	18.0
	4.24	1	2.0	2.0	20.0
	4.31	1	2.0	2.0	22.0
	4.35	1	2.0	2.0	24.0
	4.39	1	2.0	2.0	26.0
	4.41	1	2.0	2.0	28.0
	4.42	1	2.0	2.0	30.0
	4.44	1	2.0	2.0	32.0
	4.45	1	2.0	2.0	34.0
	4.46	2	4.0	4.0	38.0
	4.48	1	2.0	2.0	40.0
	4.54	1	2.0	2.0	42.0
	4.57	1	2.0	2.0	44.0
	4.58	1	2.0	2.0	46.0
	4.59	1	2.0	2.0	48.0
	4.67	1	2.0	2.0	50.0
	4.70	1	2.0	2.0	52.0
	4.81	1	2.0	2.0	54.0
	4.84	1	2.0	2.0	56.0
	4.88	1	2.0	2.0	58.0
	4.92	1	2.0	2.0	60.0
	4.96	1	2.0	2.0	62.0
	4.97	1	2.0	2.0	64.0
	4.98	1	2.0	2.0	66.0
	5.00	1	2.0	2.0	68.0
	5.02	1	2.0	2.0	70.0
	5.08	1	2.0	2.0	72.0
	5.09	1	2.0	2.0	74.0
	5.18	1	2.0	2.0	76.0
	5.21	1	2.0	2.0	78.0
	5.25	1	2.0	2.0	80.0
	5.26	1	2.0	2.0	82.0
	5.27	1	2.0	2.0	84.0
	5.31	1	2.0	2.0	86.0
	5.34	2	4.0	4.0	90.0
	5.38	1	2.0	2.0	92.0

	5.54	1	2.0	2.0	94.0
	5.55	1	2.0	2.0	96.0
	5.58	1	2.0	2.0	98.0
	5.63	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Content Effectiveness(content quality & help quality)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.92	2	4.0	4.0	4.0
	4.00	3	6.0	6.0	10.0
	4.08	2	4.0	4.0	14.0
	4.17	4	8.0	8.0	22.0
	4.17	1	2.0	2.0	24.0
	4.25	6	12.0	12.0	36.0
	4.33	2	4.0	4.0	40.0
	4.33	1	2.0	2.0	42.0
	4.42	1	2.0	2.0	44.0
	4.42	1	2.0	2.0	46.0
	4.50	2	4.0	4.0	50.0
	4.58	1	2.0	2.0	52.0
	4.58	2	4.0	4.0	56.0
	4.67	2	4.0	4.0	60.0
	4.67	2	4.0	4.0	64.0
	4.75	1	2.0	2.0	66.0
	4.83	2	4.0	4.0	70.0
	4.83	3	6.0	6.0	76.0
	4.92	1	2.0	2.0	78.0
	5.00	4	8.0	8.0	86.0
	5.08	1	2.0	2.0	88.0
	5.17	1	2.0	2.0	90.0
	5.25	2	4.0	4.0	94.0
	5.33	1	2.0	2.0	96.0
	5.42	1	2.0	2.0	98.0
	5.67	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

New Quality of videos(download time & quality of videos)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.33	1	2.0	2.0	2.0
	3.58	1	2.0	2.0	4.0
	3.75	1	2.0	2.0	6.0
	3.83	1	2.0	2.0	8.0
	4.00	3	6.0	6.0	14.0

	4.08	2	4.0	4.0	18.0
	4.08	1	2.0	2.0	20.0
	4.17	1	2.0	2.0	22.0
	4.17	4	8.0	8.0	30.0
	4.25	2	4.0	4.0	34.0
	4.33	3	6.0	6.0	40.0
	4.33	2	4.0	4.0	44.0
	4.42	4	8.0	8.0	52.0
	4.50	4	8.0	8.0	60.0
	4.58	1	2.0	2.0	62.0
	4.58	1	2.0	2.0	64.0
	4.67	3	6.0	6.0	70.0
	4.83	1	2.0	2.0	72.0
	4.92	1	2.0	2.0	74.0
	4.92	3	6.0	6.0	80.0
	5.08	1	2.0	2.0	82.0
	5.17	1	2.0	2.0	84.0
	5.25	3	6.0	6.0	90.0
	5.42	1	2.0	2.0	92.0
	5.50	1	2.0	2.0	94.0
	5.67	1	2.0	2.0	96.0
	5.75	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

User Satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.80	2	4.0	4.0	4.0
	3.00	1	2.0	2.0	6.0
	3.40	1	2.0	2.0	8.0
	3.60	3	6.0	6.0	14.0
	3.80	3	6.0	6.0	20.0
	4.00	6	12.0	12.0	32.0
	4.20	8	16.0	16.0	48.0
	4.40	7	14.0	14.0	62.0
	4.60	4	8.0	8.0	70.0
	4.80	6	12.0	12.0	82.0
	5.00	4	8.0	8.0	90.0
	5.20	2	4.0	4.0	94.0
	5.40	2	4.0	4.0	98.0
	5.60	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Navigation Ease	50	3.75	5.75	4.6250	.52306
User Satisfaction	50	2.80	5.60	4.3320	.62936
Apperance (layout structure & use of color)	50	3.93	5.63	4.7452	.48323
Content Effectiveness(content quality & help quality)	50	3.92	5.67	4.5717	.43514
New Quality of videos(download time & quality of videos)	50	3.33	5.75	4.5433	.55206
Valid N (listwise)	50				

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Navigation Ease(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.339(a)	.115	.097	.59814

a Predictors: (Constant), Navigation Ease

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.236	1	2.236	6.250	.016(a)
	Residual	17.173	48	.358		
	Total	19.409	49			

a Predictors: (Constant), Navigation Ease
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.

		B	Std. Error	Beta		
1	(Constant)	2.443	.760		3.214	.002
	Navigation Ease	.408	.163	.339	2.500	.016

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Apperance (layout structure & use of color)(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.219(a)	.048	.028	.62050

a Predictors: (Constant), Apperance (layout structure & use of color)

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.928	1	.928	2.411	.127(a)
	Residual	18.481	48	.385		
	Total	19.409	49			

a Predictors: (Constant), Apperance (layout structure & use of color)
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.981	.875		3.407	.001
	Apperance (layout structure & use of color)	.285	.183	.219	1.553	.127

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Content Effectiveness(content quality & help quality)(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350(a)	.122	.104	.59572

a Predictors: (Constant), Content Effectiveness(content quality & help quality)

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.375	1	2.375	6.691	.013(a)
	Residual	17.034	48	.355		
	Total	19.409	49			

a Predictors: (Constant), Content Effectiveness(content quality & help quality)
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.019	.898		2.248	.029
	Content Effectiveness(content quality & help quality)	.506	.196	.350	2.587	.013

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	New Quality of videos(download time & quality of videos)(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.528(a)	.278	.263	.54022

a Predictors: (Constant), New Quality of videos(download time & quality of videos)

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.401	1	5.401	18.506	.000(a)
	Residual	14.008	48	.292		
	Total	19.409	49			

a Predictors: (Constant), New Quality of videos(download time & quality of videos)
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.600	.640		2.501	.016
	New Quality of videos(download time & quality of videos)	.601	.140	.528	4.302	.000

a Dependent Variable: User Satisfaction

Regression

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method

1	Navigation Ease, Content Effectiveness(content quality & help quality), New Quality of videos(download time & quality of videos), Apperance (layout structure & use of color)(a)	.	Enter

a All requested variables entered.
b Dependent Variable: User Satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.556(a)	.309	.247	.54600

a Predictors: (Constant), Navigation Ease, Content Effectiveness(content quality & help quality), New Quality of videos(download time & quality of videos), Apperance (layout structure & use of color)

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.994	4	1.498	5.026	.002(a)
	Residual	13.415	45	.298		
	Total	19.409	49			

a Predictors: (Constant), Navigation Ease, Content Effectiveness(content quality & help quality), New Quality of videos(download time & quality of videos), Apperance (layout structure & use of color)
b Dependent Variable: User Satisfaction

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.550	.994		.553	.583

	New Quality of videos(download time & quality of videos)	.502	.170	.440	2.947	.005
	Content Effectiveness(content quality & help quality)	.153	.244	.106	.627	.534
	Apperance (layout structure & use of color)	.077	.213	.059	.361	.720
	Navigation Ease	.094	.180	.078	.524	.603

a Dependent Variable: User Satisfaction

Correlations

Correlations

		Navigation Ease	Apperance (layout structure & use of color)	Content Effectiveness(content quality & help quality)	New Quality of videos(download time & quality of videos)	User Satisfaction
Navigation Ease	Pearson Correlation	1	.398(**)	.369(**)	.451(**)	.339(*)
	Sig. (2-tailed)	.	.004	.008	.001	.016
	N	50	50	50	50	50
Apperance (layout structure & use of color)	Pearson Correlation	.398(**)	1	.597(**)	.148	.219
	Sig. (2-tailed)	.004	.	.000	.306	.127
	N	50	50	50	50	50
Content Effectiveness(content quality & help quality)	Pearson Correlation	.369(**)	.597(**)	1	.408(**)	.350(*)
	Sig. (2-tailed)	.008	.000	.	.003	.013
	N	50	50	50	50	50
New Quality of videos(download time & quality of videos)	Pearson Correlation	.451(**)	.148	.408(**)	1	.528(**)
	Sig. (2-tailed)	.001	.306	.003	.	.000
	N	50	50	50	50	50
User Satisfaction	Pearson Correlation	.339(*)	.219	.350(*)	.528(**)	1
	Sig. (2-tailed)	.016	.127	.013	.000	.
	N	50	50	50	50	50

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

3.4 Analysis of New Data

With the new data the same tests were performed. First a reliability analysis was executed and the results increased from 72% to 74%. Although it is not a big change, it is still positive since that means that the population was represented even more by just grouping variables together. Another test performed on the new data is, a descriptive analysis. This analysis showed similar results to the analysis done with the old data. All the variabe had a mean of 4 or more, which means that most of the people interviewed were satisfy with all the variables tested in the survey.

Another analysis we performed on the new data is a regression analysis and the following data was collected:

Variable	Calculated F	Tabulated F	R	R square
New Quality of Videos	18.506	4.04	.278	.263
Content Effectives	6.691	4.04	.350	.122
Navigation Ease	6.250	4.04	.339	.115
Appearance	2.411	4.04	.219	.048
All variables	5.06	2.58	.556	.309

The regression analysis produced very similar results as the old analysis. All the variables are related to the user satisfaction, except appearance, since the tabulated f is smaller than the calculated F. All the Rs are positive meaning that the all the variable are positively correlated to the user satisfaction. R square which determines to which extent the changes in the variables explain the changed in the dependent variables (user satisfaction) did not changed dramatically. Actually when all the variables were compare all of them only explain 30.9% which is about 4% less than the old analysis.

By doing that statistical analysis of the results obtained from the surveys, we realized that most of the users were satisfy with the main features of our website. Most of the responses were between 4 and 5, which shows that the users agree or extremely agreed with the website design. The analysis also showed that the data collected might not be a 100% accurate since the variables do not fully explained the changes in user satisfaction. We modify the data to try to obtain better results, but this process did not worked out. The reason the data might not be accurate might be because of erroneous grouping of variables, a small sample size, and bias answer from the people interviewed. Overall the statistical analysis allowed us to see the possible challenges our site design might have, this in turn improved our design and in the future will give the customer a better design web site.

4. Implementation Test

Implementation test analyses the versatility of the software created to run in different platforms. Our web site was first created and tested in our personal laptops, and then the NJIT server hosted our web site. All of the main features and content ran perfectly in both our laptops and the NJIT server.

We also tested to see if our page would be seen with the same precision in a windows operating system and a Unix operating system. The results were excellent since there was not difference in our web site look and execution.

In addition to testing our web site in different operating systems we also tested the website in different browsers. The web site was originally design to run on Internet Explorer, therefore the web site performance is at it's maximum when view in IE. Although it runs significantly good in Netscape there are some differences. Some of the XML code is not displayed and therefore some of the quick links do not function properly. Other than this the web site runs exactly like it would in Internet explorer.

Overall our website is efficient in all types of browser and operating systems, therefore we can meet the requirements of almost any of our customers.

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