JJFN GROUP

Fast Innovation for Commerce Unified Systems

Software Project Management Plan

Version 1.0

Date: October 29, 2009

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Revision History

Date	Version	Description	Author
10/08/2009	0.1.1	First draft of Section 1	José Lecumberry
10/12/2009	0.1.2	First draft of Section 2	José Lecumberry
10/15/2009	0.1.3	First draft of Section 3	José Lecumberry
10/21/2009	0.2.1	Second draft of Section 1	José Lecumberry
10/22/2009	0.2.2	Second draft of Section 2	José Lecumberry
10/24/2009	0.2.3	Second draft of Section 3	José Lecumberry
10/25/2009	0.2.4	Section 2.1 Tables and Figures	José Lecumberry
10/26/2009	0.2.5	Section 3.2 and 3.3	José Lecumberry
10/27/2009	0.2.6	Section 4	José Lecumberry
10/29/2009	1.0	FICUS SPMP 1.0 Revised and Completes	Norberto Reyes

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1. Introduction

1.0. Project overview

Fast Innovation for Commerce Unified System (FICUS) will provide the customers of a gym the accessibility of an online personal account to manage subscription, add courses, remove courses, reserve courses, pay or cancel subscription. This would be particularly useful for gym's administrators, where there are high amounts of members and not enough trainers or staff to satisfy the customer needs. It will allow the customer to get a faster, innovative and secure way to manage their gym accounts.

FICUS is intended to be use on Puerto Rico and United States territories, where regulation laws of Web Security and business are a standard. The language of the software interface is English, with an understandable vocabulary for the users. It requires the user to know Basic English and with Web vocabulary.

The project team is expected to complete the project within one trimester. This project will use resources in the form of time and effort that will be spent developing the project deliverables and under the guidance of Luis Ortiz, who overview the entire process and agreed to be the advisor and a guide for this project. When required, IEEE standards would be followed for documentation purposes. All the documents would be discussed and reviewed with the project team before their baseline versions are issued and distributed.

1.1. Project Deliverables

The list of project deliverables is detailed in Table 1.1.

Table 1.1 Project deliverables

Deliverable	Date
Software Requirements Specification	September 15, 2009
Project Management Plan	October 27, 2009
System Design Document	October 27, 2009
Software Test Documentation	October 27, 2009
Working System	October 27, 2009

2. Project Organization

2.1. Software Process Model

The project will be a hybrid of the incremental waterfall development model and a simplified version of the Personal Software Process model. While the PSP process is mainly targeted for large-scale program developments and personal developments, the project is expected to be relatively small and fast-paced in a short period. Also the project team is also very small and roles are distributed so we prefer the PSP instead of the Team Software Process (TSP). Therefore, the cyclical process is introduced but simplified. The development process model is illustrated in Figure 2.1. In addition, the process model basically consists of the following activities (**Table 2.1**):

Table 2.1 Software Process Model

Word	Definition
Requirements Analysis/Design (High Level)	The system's services, constraints and goals are established with system users. They are defined in detail and serve as a software requirement specification.
System Design (High Level)	The system/software design process partitions the requirements to sub-systems. Software design involves identifying and describing the fundamental software system abstractions and their relationships.
Design Review	The software design is realized as a set of programs or program units. Unit testing involves verifying that each unit meets its specification.
Cyclic Development	The individual program units or programs are integrated and tested as a whole system to ensure that the software requirements have been met. After testing, the software system is delivered to the client..
Maintenance	The software system is installed and put into practical use. The system is monitored periodically and provide system enhancement as needed.

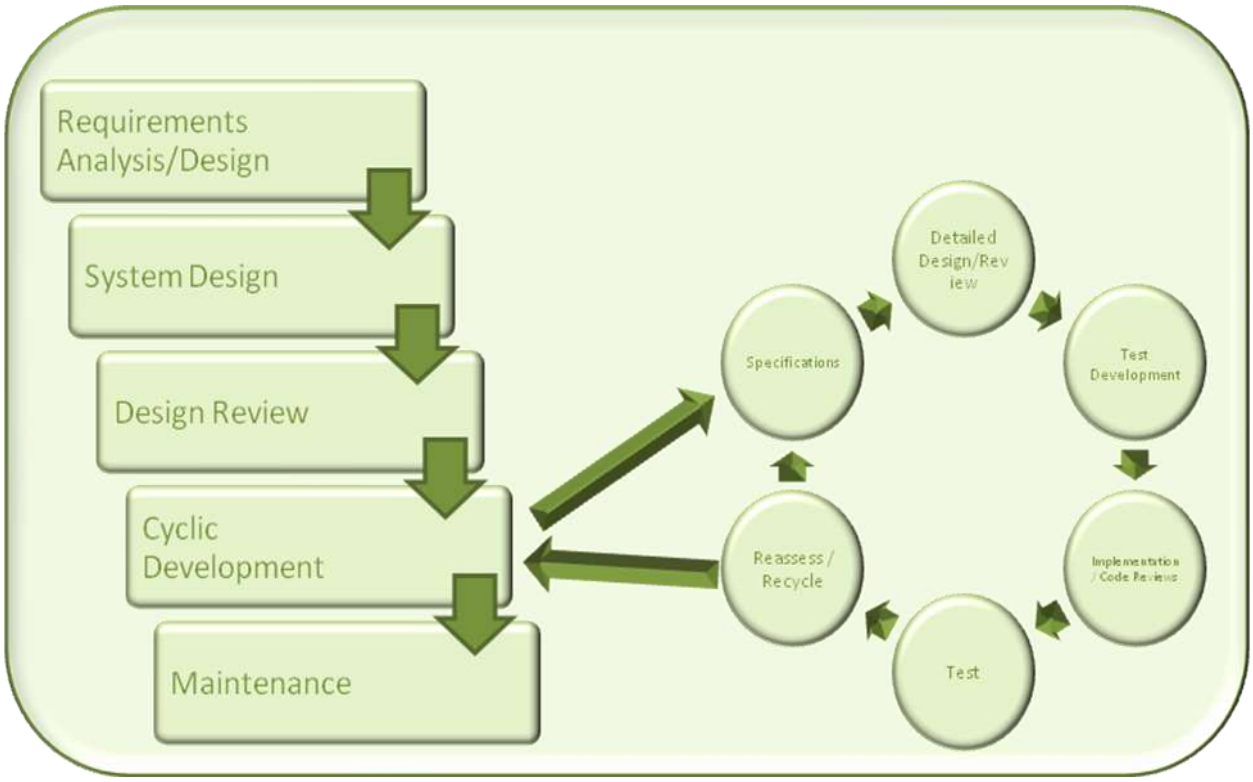

Figure 2.1 Software Process Model

2.2. Roles and Responsibilities

JJFN Group is non- hierarchical organization, each member have the same level. Also the roles are shared within the organization. However coordination roles may be defined for this project as follows: Norberto Reyes- Marketing design, Francis Hayes- Programming lead, Jose Lecumberry- System Design, Jose H. Torres – Product/Concept Design.

Table 2.2.1 Member Roles

Name	Role
Norberto Reyes	Marketing Design
Francis Hayes	Programming Lead
Jose Lecumberry	System Design
Jose H. Torres	Product / Concept Design

Due to the responsibilities flat distribution of the JJFN Group the decision making process will be based on a simple democratic method. The decisions are presented and evaluated at the group meetings. Each member will have one (1) vote for a total sum of four (4) votes. A minimum of three (3) out of the four (4) votes will approve a decision, otherwise it will be automatically dismissed. In case a member of the group is not present on a meeting or will no longer be part of the group the remaining three (3) members will share on equal parts the responsibilities The remaining members will continue to perform the decision making process in the same way, however a minimum of two (2) out of the three (3) votes will approve a decision, otherwise it will be automatically dismissed.

During this project each member will be responsible for every task assigned. In case of one of the members is not be able to deliver the task assigned an extra resource from the team will be assigned to assist with the delivery of that given task

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2.3. Tools and Techniques

Formal modeling and specification techniques will be used. IEEE Standards will be used for the creation of project documentation as specified later on this document. UML (Unified Modeling Language) will be used for the creation of use cases. Access to standard office resources will be also needed such as: PC, MS Word and a printer. Team members of the JJFN Group have access to standard office resources of their own.

Specialized Project management software will be required. MS Project will be used to schedule and manage the project. Specialized software testing tools or software may be required. The JJFN Group will research and provide the necessary software testing tools required for this project. To avoid data loss and version tracking the team will use SkyDrive to store the documentation online.

3. Project Management Plan

3.1. Tasks

3.1.1. SRS - Software Requirements Specification

3.1.1.1. Description

The Software Requirements Specification (SRS) documentation makes the application understandable in order to avoid misconceptions between the client and the development team. It also helps the developer understand the user's needs. This document will be based on the IEEE 830-1998, also known as the Recommended Practice for Software Requirements Specification.

3.1.1.2. Deliverables and Milestones

For this task the group will need to develop and deliver the Software Requirements Specification document. The assigned resources will need to do research on the best practices for SRS documentation process. Then the resources will meet with the team to present and discuss the drafts of the documentation. Each draft will be revised by the other team members and will provide feedback as needed.

3.1.1.3. Resources Needed

The primary resources for this task will be Norberto Reyes, Jose Humberto Torres, Francis Hayes and Jose Lecumberry. They will be responsible for the completion and delivery of the Software Requirements Specification documentation. Access to standard office resources will be also needed such as: PC, MS Word and a printer. MS Visio will be used to create flowcharts and use case diagrams.

3.1.1.4. Dependencies and Constraints

There are no dependencies associated to this task. Several constraints are associated to this task. The duration of this task will be restricted to the fall semester of 2009 in the Polytechnic University of Puerto Rico. It will also need to be delivered by Tuesday October 27, 2009.The primary resources assigned to this task have time constraints as they work and take other courses at the university. The resources need to use their free time efficiently to deliver the documentation on the due date. There is no budget or cost management constraints, however a budget report will need to be provided along with this documentation.

3.1.1.5. Risks and Contingencies

In case of one of the primary resources not be able to deliver the documentation an extra resource from the team will be assigned to assist with the needed documentation. In order to avoid data loss to a SkyDrive account has been set up to backup the documentation. The assigned resources will backup each revision of the documentation in order to have the most recent version in case of a data loss event.
University computing technology resources will be used in case of equipment problems.

3.1.2. SPMP - Software Project Management Plan

3.1.2.1. Description

The Software Project Management Plan document will identify the scope of the project, estimate the work involved, and create a project schedule. The SPMP begins with requirements described on the SRS; these requirements define the software to be developed. The SPMP is then developed to describe the tasks that will lead to completion.

3.1.2.2. Deliverables and Milestones

For this task the group will need to develop and deliver the Software Project Management Plan. Also a Gantt chart will be needed to schedule and track the project. The assigned resources will need to do research on the best practices for SPMP documentation process. The assigned resources will meet with the team to present and discuss the drafts of the documentation. Each draft will be revised by the other team members and will provide feedback as needed.

3.1.2.3. Resources Needed

The primary resource for this task will be Jose Lecumberry. He will be responsible for the completion and delivery of the Software Project Management Plan. Access to standard office resources will be also needed such as: PC, MS Word and a printer. Specialized Project management software will be required. MS Project will be used to schedule and manage the project.

3.1.2.4. Dependencies and Constraints

There are no dependencies associated to this task.

Several constraints are associated to this task. The duration of this task will be restricted to the fall semester of 2009 in the Polytechnic University of Puerto Rico. It will also need to be delivered by Tuesday October 27, 2009.

The primary resource assigned to this task has time constraints as he work and take other courses at the university. The resource need to use their free time efficiently to deliver the documentation on the due date.

There is no budget or cost management constraints, however a budget report will need to be provided along with this documentation.

3.1.2.5. Risks and Contingencies

In case of the primary resource not be able to deliver the documentation an extra resource from the team will be assigned to assist with the needed documentation. In order to avoid data loss to a SkyDrive account has been set up to backup the documentation. The assigned resource will backup each revision of the documentation in order to have the most recent version in case of a data loss event. The university computing technology resources will be used in case there is a problem with the already available office equipment from the JJFN Group.

3.1.3. STD – Software Test Documentation

3.1.3.1. Description

The Software Test Documentation will be the guidelines to generate a final document that will be used to indicate whether the software system under test is fit for purpose according to whether or not it has met acceptance criteria defined by project stakeholders. A report providing any important information uncovered by the tests accomplished, and an assessment of the quality of the testing effort will be also part of the subsequent documentation of the STD.

3.1.3.2. Deliverables and Milestones

For this task the group will need to develop and deliver the Software Test Documentation. The assigned resources will need to do research on the best practices for STD documentation process. Then the resources will meet with the team to present and discuss the drafts of the documentation. Each draft will be revised by the other team members and will provide feedback as needed.

3.1.3.3. Resources Needed

The primary resource for this task will be Francis Hayes. The secondary resources for this task will be Norberto Reyes, Jose Humberto Torres and Jose Lecumberry. The primary resource will be responsible for the completion and delivery of the Software Test Documentation. Access to standard office resources will be also needed such as: PC, MS Word and a printer. Specialized testing Software will also be required for the testing of the software.

3.1.3.4. Dependencies and Constraints

There are no dependencies associated to this task. Several constraints are associated to this task. The duration of this task will be restricted to the fall semester of 2009 in the Polytechnic University of Puerto Rico. It will also need to be delivered by Tuesday October 27, 2009. The primary resource assigned to this task has time constraints as he work and take other courses at the university. The resource need to use their free time efficiently to deliver the documentation on the due date. There is no budget or cost management constraints, however a budget report will need to be provided along with this documentation.

3.1.3.5. Risks and Contingencies

In case of the primary resource not be able to deliver the documentation an extra resource from the team will be assigned to assist with the needed documentation. In order to avoid data loss to a SkyDrive account has been set up to backup the documentation. The assigned resource will backup each revision of the documentation in order to have the most recent version in case of a data loss event. The university computing technology resources will be used in case there is a problem with the already available office equipment from the JJFN Group.

3.1.4. SDD – Software Design Documentation

3.1.4.1. Description

The Software Design Document will describe and specify the system architecture and the application design in the FICUS project. The software application will then be developed based on the detailed descriptions on this document. This document will be based on the IEEE 1016-1998, also known as the Recommended Practice for Software Design Descriptions; it will also be based on other SDD templates.

3.1.4.2. Deliverables and Milestones

For this task the group will need to develop and deliver the Software Design Document. The assigned resources will need to do research on the best practices for SDD documentation process. Then the resources will meet with the team to present and discuss the drafts of the documentation. Each draft will be revised by the other team members and will provide feedback as needed.

3.1.4.3. Resources Needed

The primary resources for this task will be Norberto Reyes and Jose Humberto Torres. The secondary resource for this task will be Jose Lecumberry. The primary resources will be responsible for the completion and delivery of the Software Design Documentation. Access to standard office resources will be also needed such as: PC, MS Word and a printer

3.1.4.4. Dependencies and Constraints

There are no dependencies associated to this task.Several constraints are associated to this task. The duration of this task will be restricted to the fall semester of 2009 in the Polytechnic University of Puerto Rico. It will also need to be delivered by Tuesday October 27, 2009. The primary resources assigned to this task have time constraints as they work and take other courses at the university. The resources need to use their free time efficiently to deliver the documentation on the due date. There is no budget or cost management constraints, however a budget report will need to be provided along with this documentation.

3.1.4.5. Risks and Contingencies

In case of one of the primary resources not be able to deliver the documentation an extra resource from the team will be assigned to assist with the needed documentation.
In order to avoid data loss to a SkyDrive account has been set up to backup the documentation. The assigned resources will backup each revision of the documentation in order to have the most recent version in case of a data loss event.
The PUPR computing technology resources will be used in case there is a problem with the already available office equipment from the JJFN Group.

3.1.5. Working System

3.1.5.1. Description

The Working System will be a beta version of the application . The team will need to complete the design tasks before starting the development. Once the development is started features can be reviewed, modified or added as we are using a cyclical software process model. However the final product must contain the requirements specified on the SRS.

3.1.5.2. Deliverables and Milestones

For this task the group will need to develop and deliver the beta version of the application. The assigned resources will need to follow the requirements specified on the SRS to develop and deliver the application. The final product or application should be the same as described on the SRS. The resources will develop the different features specified on the requirements. After developing each feature it will need to be tested. After the testing the other team members will provide input on the feature and go back to the developing stage if additional functionality is required to meet the specifications.

3.1.5.3. Resources Needed

The primary resource for this task will be Francis Hayes. The secondary resources for this task will be Norberto Reyes, Jose Humberto Torres and Jose Lecumberry. They will all be responsible for the completion and delivery of the Working System. Access to standard office resources will be also needed such as: PC, MS Word and a printer. DNS entry for the website will be required. A web hosting service will be used to host the application . Joomla will be used as the website content manager.

3.1.5.4. Dependencies and Constraints

There are no dependencies associated to this task. Several constraints are associated to this task. The duration of this task will be restricted to the fall semester of 2009 in the Polytechnic University of Puerto Rico. It will also need to be delivered by Tuesday October 27, 2009. The primary resources assigned to this task have time constraints as they work and take other courses at the university. The resources need to use their free time efficiently to deliver the documentation on the due date. There is no budget or cost management constraints, however a budget report will need to be provided along with this documentation.

3.1.5.5. Risks and Contingencies

In case of one of the primary resources not be able to deliver the documentation an extra resource from the team will be assigned to assist with the needed documentation.
In order to avoid data loss to a SkyDrive account has been set up to backup the documentation.

The deficiency in the knowledge and understanding of the problem and its solution indicates that the developer does not have the complete understanding of the problem. This will affect the quality of the project in terms of requirements of the product and their fulfillment, which is not desirable. Building a prototype for the project model and doing an extensive literature search can overcome this. This will help the developer in delivering an efficient and quality product.
The lack of skills and knowledge of tools needed for statistical analysis, which means that the developer does not have knowledge about the tools and knowledge of working on statistical analysis. In this case, the developer is expected to update his / her knowledge of tools available for this purpose and decide the one that will be used in the project and master it.
The assigned resources will backup each revision of the documentation in order to have the most recent version in case of a data loss event.
The PUPR computing technology resources will be used in case there is a problem with the already available office equipment from the JJFN Group.

3.2. Assignments

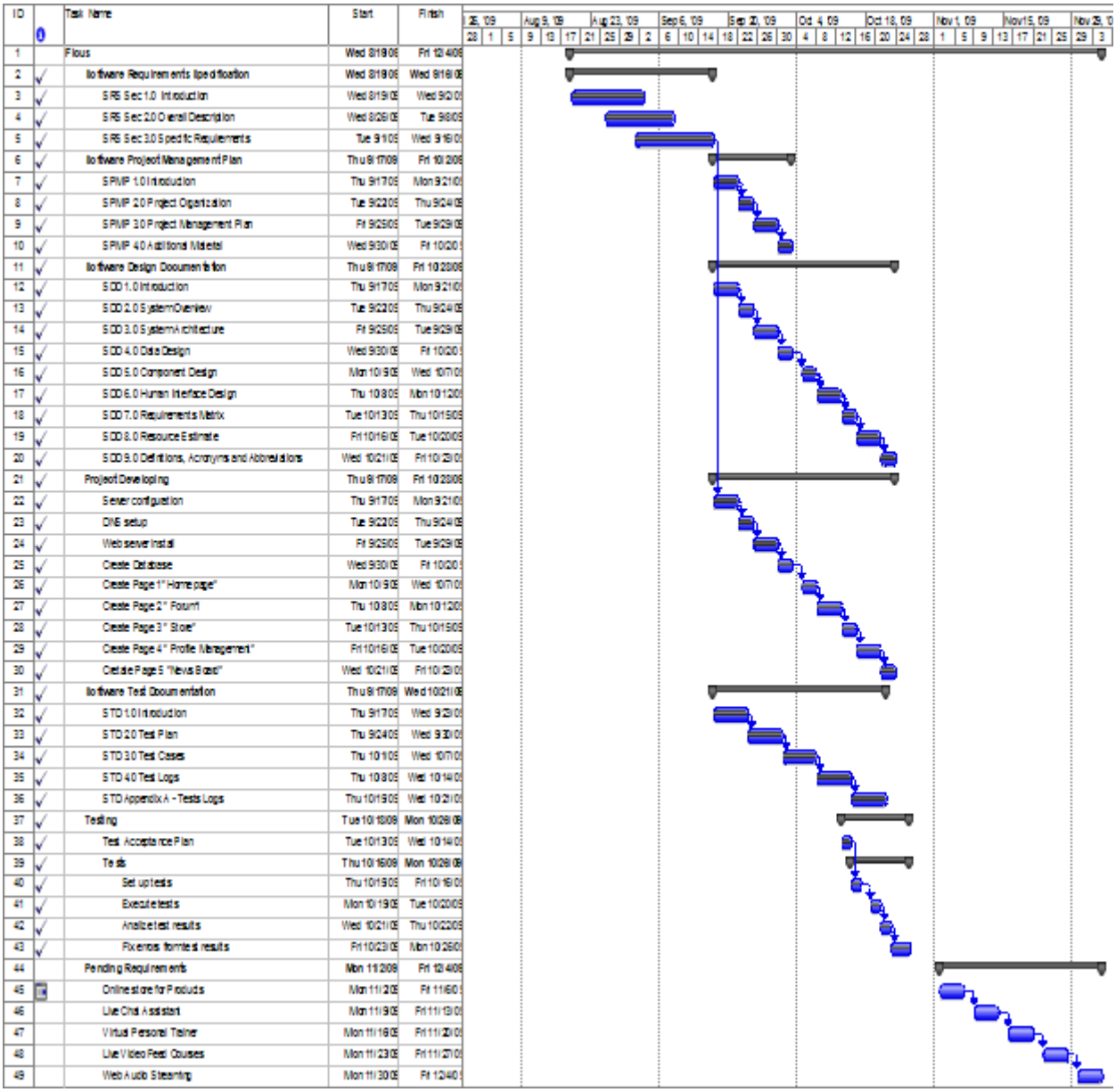
During this project the proposed tasks will be assigned to individual resources of the JJFN group. The primary resources will be responsible for the delivery of the assigned task. The secondary resources will help the primary resources to complete the given tasks. The list of project assignments is detailed in Table 3.2.1.

Table 3.2.1 Project Assignments

Assignments	Primary Resources	Secondary Resources
Software Requirements Specification	Norberto Reyes Jose H. Torres Jose Lecumberry Francis Hayes	N/A
Project Management Plan	Jose Lecumberry	N/A
System Design Document	Norberto Reyes Jose H. Torres	Jose Lecumberry
Software Test Documentation	Francis Hayes	Norberto Reyes Jose H. Torres Jose Lecumberry
Working System	Francis Hayes	Norberto Reyes Jose H. Torres Jose Lecumberry

3.3. Timetable

For this project the task will be tracked on MS Project. A time table has been created in order to keep track of the tasks and the milestones in this project. Each task will be assigned to different resources. For every given task the resource assigned will be responsible for its completion. In the Table 3.1 you will find a timetable with the tasks for this project.



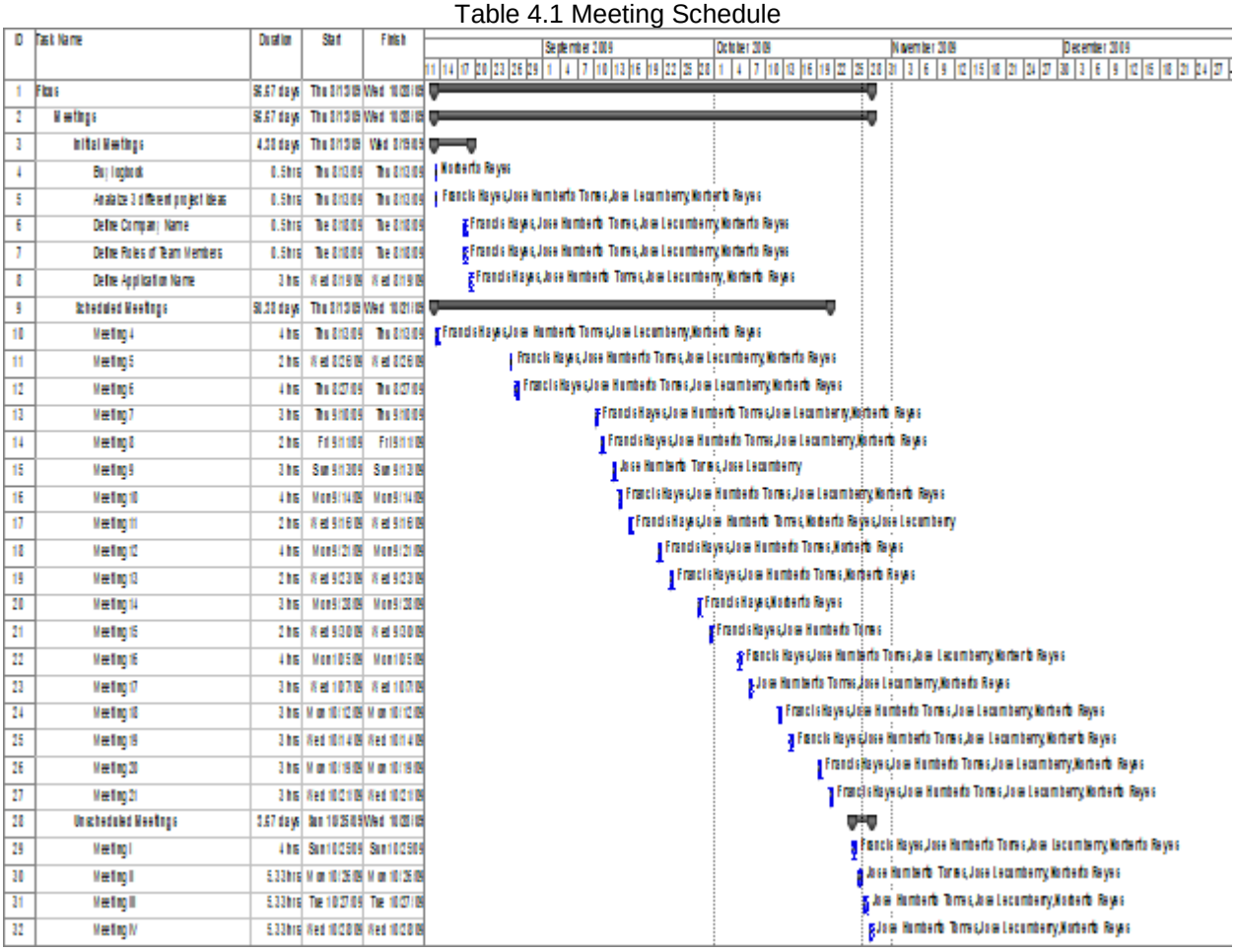
ID	Task Name	Start	Finish
1	Flous	Wed 8/19/09	Fri 12/4/09
2	Software Requirements Specification	Wed 8/19/09	Wed 9/16/09
3	SRS Sec 1.0 Introduction	Wed 8/19/09	Wed 9/2/09
4	SRS Sec 2.0 Overall Description	Wed 8/26/09	Tue 9/8/09
5	SRS Sec 3.0 Specific Requirements	Tue 9/1/09	Wed 9/16/09
6	Software Project Management Plan	Thu 8/17/09	Fri 10/2/09
7	SPMP 1.0 Introduction	Thu 9/17/09	Mon 9/21/09
8	SPMP 2.0 Project Organization	Tue 9/22/09	Thu 9/24/09
9	SPMP 3.0 Project Management Plan	Fri 9/25/09	Tue 9/29/09
10	SPMP 4.0 Additional Material	Wed 9/30/09	Fri 10/2/09
11	Software Design Documentation	Thu 8/17/09	Fri 10/23/09
12	SDD 1.0 Introduction	Thu 9/17/09	Mon 9/21/09
13	SDD 2.0 System Overview	Tue 9/22/09	Thu 9/24/09
14	SDD 3.0 System Architecture	Fri 9/25/09	Tue 9/29/09
15	SDD 4.0 Data Design	Wed 9/30/09	Fri 10/2/09
16	SDD 5.0 Component Design	Mon 10/5/09	Wed 10/7/09
17	SDD 6.0 Human Interface Design	Thu 10/8/09	Mon 10/12/09
18	SDD 7.0 Requirements Matrix	Tue 10/13/09	Thu 10/15/09
19	SDD 8.0 Resource Estimate	Fri 10/16/09	Tue 10/20/09
20	SDD 9.0 Definitions, Acronyms and Abbreviations	Wed 10/21/09	Fri 10/23/09
21	Project Developing	Thu 8/17/09	Fri 10/23/09
22	Server configuration	Thu 9/17/09	Mon 9/21/09
23	DNS setup	Tue 9/22/09	Thu 9/24/09
24	Web server install	Fri 9/25/09	Tue 9/29/09
25	Create Database	Wed 9/30/09	Fri 10/2/09
26	Create Page 1" Home page"	Mon 10/5/09	Wed 10/7/09
27	Create Page 2" Forum"	Thu 10/8/09	Mon 10/12/09
28	Create Page 3 " Store"	Tue 10/13/09	Thu 10/15/09
29	Create Page 4 " Profile Management"	Fri 10/16/09	Tue 10/20/09
30	Create Page 5 "News Board"	Wed 10/21/09	Fri 10/23/09
31	Software Test Documentation	Thu 8/17/09	Wed 10/21/09
32	STD 1.0 Introduction	Thu 9/17/09	Wed 9/23/09
33	STD 2.0 Test Plan	Thu 9/24/09	Wed 9/30/09
34	STD 3.0 Test Cases	Thu 10/1/09	Wed 10/7/09
35	STD 4.0 Test Logs	Thu 10/8/09	Wed 10/14/09
36	STD Appendix A - Tests Logs	Thu 10/15/09	Wed 10/21/09
37	Testing	Tue 10/13/09	Mon 10/26/09
38	Test Acceptance Plan	Tue 10/13/09	Wed 10/14/09
39	Tests	Thu 10/15/09	Mon 10/26/09
40	Set up tests	Thu 10/15/09	Fri 10/16/09
41	Execute tests	Mon 10/19/09	Tue 10/20/09
42	Analize test results	Wed 10/21/09	Thu 10/22/09
43	Fix errors from test results	Fri 10/23/09	Mon 10/26/09
44	Pending Requirements	Mon 11/2/09	Fri 12/4/09
45	Online store for Products	Mon 11/2/09	Fri 11/6/09
46	Live Chat Assistant	Mon 11/9/09	Fri 11/13/09
47	Virtual Personal Trainer	Mon 11/16/09	Fri 11/20/09
48	Live Video Feed Classes	Mon 11/23/09	Fri 11/27/09
49	Web Audio Streaming	Mon 11/30/09	Fri 12/4/09

4. Additional Material

4.1. Meeting Schedule

The JJFN group will meet twice a week, every Monday and Wednesday at 6:00 PM. The group will meet for a minimum, but not limited, of two (2) hours. Assistance to the meetings is compulsory otherwise the time will be discounted from the member payroll. Assistance to the meeting can either be by presence or remote (virtual). On the Table 4.1 you will find the meeting schedule.

Table 4.1 Meeting Schedule



4.2. Project Budget

During this project JJFN group will track the budget for documentation purposes only. This will not be a real budget, however it will be closely tracked as it will provide accurate data of the resource utilization. The total cost for this project will be $6,837.50. Each of the members of the JJFN Group has been contracted for $25 per hour. An estimate of 273.5 resource hours will be used to complete this project.

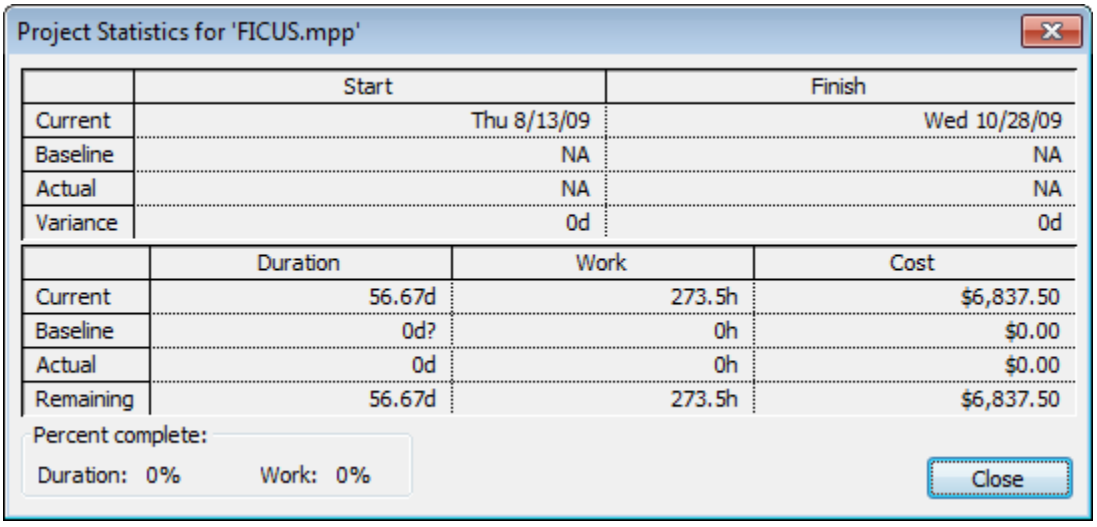


Figure 4.1 Project Statistics