Conference Management and Reservation Online Portal

Project Plan

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# 1.0 Introduction

## 1.1 Purpose

The purpose of this document is to describe the plan for the project management of the Conference Management and Reservation Online Portal. This document will also explain the different aspects of the project plan estimation.

## 1.2 Background

The Conference Management and Reservation Online Portal is developed to serve as an online portal to manage conference events. This portal integrates the functionality of conference rooms, hotel, tours and caterer bookings. The system is capable of managing a range of conference events which are held in different sessions respectively.

## 1.3 Key personnel:

### 1.3.1 Stake Holders

### 1.3.1.1 Developers

Developers are responsible for creating a conference management and reservation web portal that meets the requirements and expectations of the project client. Developers are also responsible for the deployment of the online portal to a web domain so that clients can access the portal through the Internet. Documentations are also provided together with the web portal as reference for the users of this web portal.

### 1.3.1.2 Event Manager

The Event Manager uses the conference management portal as an administrator. Administrators have privileged access to conference management functions such as adding, deleting and modifying entities. Administrators have access to the conference event entities such as participants, schedules, sessions, speakers, venues, rooms, caterers, sponsors and event manager details.

### 1.3.1.3 Participants

Participants uses the conference management portal as a normal user. Normal users are limited to the functions for conference reservations as well as hotel and tour booking. Normal users can also view their personal schedule for participated conference events. The details for each conference session can also be viewed by normal users. Modifications or cancellations for are only allowed for the conference or hotel bookings which have been made by the user.

### 1.3.2 Project manager and Key project members

### 1.3.2.1 Project Manager

The project manager is responsible for organizing all the team members to work collaboratively. Project manager is also the main contact for setting up meetings and communicating with the client. Group meetings are also set up by the project manager to follow up with the progress of team members and discuss any changes made to the system.

### 1.3.2.2 Developers

Developers are responsible for implementation of the requirements for this web portal into a functioning web page. Developers are assigned to either the front-end or back-end programming. Front-end programming is concerned with the user interface, layout, display functionality and integration with the back-end program. Front-end developers will work with HTML, CSS, Javascript and PHP languages.

Back-end programming concerns the organization of data which is stored on the web server. The relationship between the entities and appropriate data types are determined by the back-end programmer. The language used by back-end developers is SQL.

### 1.3.2.3 Analysts

Analysts are responsible for capturing the business requirements of the clients and presenting the information in a System Requirements Specification document. Analysts also determine the scope of the functional requirements which must be implemented in order to meet the business requirements of the client. In order to represent the functional requirements, UML diagrams are presented in the Software Design Document.

### 1.3.2.4 Testers

Testers are responsible for the testing process of a milestone. Developers are expected to test the functions implemented during the developing stage while testers run tests on completed phase of the web page. Several types of tests are done on the finished product such as white-box testing and black-box testing.

# 2.0 Terms of Reference

## 2.1 Goals

The goal of this project is to develop a conference management and reservation online portal to meet the client’s requirements.

## 2.2 Objectives

The objective of this project is to meet the conference management needs of the client which is by creating a Conference Management and Reservation Online Portal before the Final Presentation, done by four team members who are Final Year Students in BCS and BICT.

## 2.3 Scope

The project scope is as the following:

* Choose a project title and understand the project outline
* Team meetings to discuss project progress and delegate tasks
* Producing meeting minutes for each meeting
* Research for existing systems that are similar to the project solution
* Meet the client for requirements gathering
* Produce a Software Requirements Specification (SRS) to define the client’s requirements
* Get approval from the client for the SRS
* Research developer tools, Frameworks, API and Content Management System to develop the online web portal
* Produce a Software Design Document Based which meets the specification of SRS
* Implementing the software design by creating a web page prototype
* Testing the web page prototype
* Getting client feedback for the web page prototype
* Improving and finalizing prototype while follow-up with client’s feedback
* Deployment of prototype to a web domain
* Producing software user documentation
* Presentation of completed software to the client

## 2.4 Critical Success Factors

The critical success factors of this project must be met in order to ensure that this project is aimed at developing a product that is distinguished from existing products. Critical success factors consists of five key motivators: the industry, competitive strategy, environmental factors, temporal factors and managerial position. The following shows the critical success factors for each motivator:

1. The industry

- Provide online portal to manage conference events

- Automate manual tasks involved in conference managements

- Provide better and faster communications between participants and event managers in setting up a conference event

- Implement good web page flow for usability

2. Competitive strategy

- Integration of other aspects such as hotels and tour booking into a Conference Management system

- Provide personalized accounts to ease the process of conference bookings

3. Environmental factors

- Provide customization for setting up conference events

- Provide enquiry form

- Provide customer feedback

4. Temporal factors

- Using appropriate frameworks and content management systems to enhance the user experience

5. Managerial position

- Produce concise documentation for future reference

- Run testing on the product

- Provide scalable database for future data expansion

- Adhere to appropriate coding conventions

## 2.5 Acceptance Criteria

Acceptance criteria for this project are based on the needs which are expressed by the client and potential users of this system. The criteria for this system can be assessed from two different perspectives, which are the project event manager and the conference participant as listed in the following:

As a conference participant, I want to:

* view the upcoming conference events
* make bookings for a conference event
* check the list of bookings that I have made
* cancel a booking for a conference
* book a hotel which is in the vicinity of the conference event
* book a tour to occupy my leisure time before or after the conference event
* give feedback for each conference event that I have attended
* make enquiries about the details of upcoming conference events

As an event manager, I want to:

* publish the details of a new conference event
* make modifications to the published conference event
* take down the published conference event
* view the details of a particular conference event
* make a schedule which consists of conference events
* manage the details of sponsors and caterers for an event
* manage the details of conference venues and rooms
* make a checklist of participants, speakers and sponsors who have attended a conference event
* view the user feedback for a particular conference event
* make changes to the details of the participants of a conference

# 3.0 Establishment

## 3.1 Processes, Procedures and Standards

### 3.1.1 Project Process and Procedures

Project Initiation

The initiation phase of this project starts with choosing and understanding the title of the project. The first meeting with the client of this project is also arranged to gain more insight into the problems and requirements of the client. An online research is also conducted to find similar conference management systems and studying the strength and weaknesses of each system. The required resources to develop a new system is also researched. A proposed solution that meets the requirements of the client is drafted. This proposal is presented to the client in a Software Requirements Specification document. Once the client has signed-off the SRS document, the work-breakdown structure of the project is created to define the tasks and deliverables to be accomplished at each stages of the project. The risks of the project are also identified so that a mitigation steps can be taken to reduce or avoid the risks. Estimated project costs and schedule are also documented to serve as a guideline for all project team members.

Project Planning

During the planning phase, meetings are conducted among team members to discuss the scope of the system. A Software Design Document is prepared to serve as a guideline for the next phase, which is the execution phase. A detailed version of work-breakdown structure is developed to identify all necessary tasks and delegate the tasks to the appropriate team member role. Each team member is assigned to a role for the project. A communications plan is also determined to enable team members to contact each other. Github is also used as an online repository to synchronize the deliverables produced by each team member. Meeting management is recorded down so that progress of each meeting can be reviewed. Skills and knowledge resources which are required to develop the system are also identified. Schedules and task lists are planned and distributed among team members to ensure that the project progress will be smooth. This also prevents uneven distribution of tasks or inefficient progress. Quality assurance plan is also documented so that the system can be developed to meet quality standards. Project costs and procurement is minimal in this project, however they will be documented where necessary. A Project Plan documentation is prepared which contains all aspects of the project plan. The project plan is reviewed by the project manager and all team members to achieve consensus. Once the project plan is confirmed by all team members and the project manager, the project proceeds to the execution phase.

Project Execution and Control

The execution phase is when the project plan is implemented. During the execution, tracking and monitoring is important to understand the overall project progress. Meetings and communication are the most common ways used to track the progress of this project. Change management is also done along the project progress by updating the affected plans and documentations to reflect the change. All changes made are updated in the repository as a means of change control. Quality maintenance is done by comparing project execution progress against the Software Design Document. Along the project execution phase, the client may wish to be updated on the progress of the system development. A client meeting will be arranged to present the deliverables of the system together with appropriate documentations. As the project progresses, schedules and risks associated with the project is reviewed and changed according to the situation. Any troubles or issues concerning the project is raised during the team meeting so that appropriate action can be taken.

Project Validation

The validation of this project is done throughout the project life cycle especially during the execution and control phase. Quality management is the main concern in this phase. The developed system is constantly reviewed with the quality attributes which are defined in the Software Quality Assurance Plan. Before considering each deliverable as completed, the product has to be tested and checked to ensure that it meets the required quality attributes. Validation will be performed again on the final milestone which consists of the entire system. The final run of validation and verification may also involve client testing to ensure that not only functional requirements are met but also the non-functional requirements. If there happens to be any dissatisfaction by the client during the testing, the project requirements may have to be readjusted from the initiation phase until this phase.

Project Closeout and Evaluation

Once the project has progressed through all the four phases, it is deemed completed and finalized. All deliverables and products are prepared for delivery to the client. Surveys are conducted on the project participants to get feedback on the product for future references. Post implementation review is conducted to get the feedback from team members regarding strong and weak aspects of the project. Using these reviews, the lessons that can be learnt are developed by the project manager so that mistakes can be avoided in the future. All project documentations are stored into the repository for reference purposes. Finally, team members should be rewarded and recognised for the effort and contributions which were made towards the project.

### 3.1.2 Project Standards

The standards which are used for managing this project are in adherence to PMBOK by PMI. Quality standards defined in this project are referred from ISO.

## 4.0 Project Environment

### 4.1 Project Time Environment

The project time environment has four distinct phases: concept, planning, execution and transfer. The following table shows the activities that are involved in each phase.

|  |  |
| --- | --- |
| Concept | * Understand project description * Research for existing products from competitors in market * Perform feasibility studies:   + process   + budget   + schedule   + project stakeholders   + project team member roles   + risks * Determine project management approach |
| Planning | * Meet client to elicit requirements * Identify client pain points * Determine project scope * List down project features * Determine constraints and assumptions * Research on technologies to be used in project * Determine Functional and Non-Functional Requirements * Produce:   + System Requirements Specification   + Software Design Documentation * Re-assess:   + Schedule   + Project team member roles   + Risks * Obtain approval to proceed |
| Execution | * Set up organization and delegate tasks. * Set up repository for change control * Obtain necessary frameworks, API, CMS and IDE. * Develop:   + System prototype   + Database * Quality Assurance/Control * Verify product functions meets requirements * Modification/adjustment to meet requirements * Team meetings and progress monitoring * Present complete prototype to client |
| Transfer | * Client staff training * Client review and acceptance * Deploy system to web hosting domain * Provide documentation and user guides to client * Archive all documentations for future references * Deliver product and final report |

### 4.1.1 Internal Project Environment

Leadership structure

The leadership strategy of this project is permissive democrat, also known as Laissez Faire style. Tasks are delegated among all project team members and worked on individually. Synchronization of work deliverables is important to ensure that the individual parts will form a whole. This type of leadership style gives rise to many creative solutions and potential conflicts. However, a single solution is always chosen to be used for the project.

Organizational culture

Following the leadership structure of permissive democrat type, the organizational structure of our project team is based on integrating individual contributions to produce a final product. Changes to the existing plans or documentations are common. However, if the changes made affects the critical objectives, it has to be discussed with the client and approval has to be obtained. The culture of our organization is self-motivated and encourages individuals to contribute their own efforts towards making this project a success.

### 4.1.2 External Project Environment

Customers

The main customers for this project is the conference event manager and conference participant. Whether it is the participant or conference event manager, the customers for this product consists of both computer literate and illiterate individuals. The communication between conference event manager and conference participant is also important in order to accommodate to various needs of the participants. Conference event managers are also interested to market their future conference events to interested participants.

Government Regulations

At the current moment, the conference events which are targeted by this system are held locally. However, future improvements to this product will cause government regulations to be imposed. Registration forms, customer details and location details are developed to cover as much necessary details in order to accommodate government regulations.

Market Structure and Competitors

This product is competing in monopolistic competition market structure. Currently, there exists other online conference management portals which this product is based on. In order to gain a competitive advantage, our product integrate features which are not available all at once in any other web portals. The key selling point is integration of different distinct features for the convenience of end users.

Professional / ethical bodies

To ensure that the project management meets industry standards, Project Management Body of Knowledge (PMBOK) by Project Management Institute (PMI) is used as a guideline for management tasks. Quality of this project is adhered to the standards which are set by ISO/IEC 25010:2011 Software engineering — Product quality.

Geographical location

The geographical location of this product is currently targeted within Malaysia. English and Bahasa Malaysia are the two main languages in this country apart from mother tongues such as Mandarin and Indian language. Internet access and ICT are available in this country and as such, this online portal is meant for ICT savvy users. In the future, this online portal will extend its coverage to other countries.

## 4.2 Project Team Training Requirements

Each team member has different roles which can be categorized mainly into client management, business process practitioners and developers. Each team member may be assigned to various roles. These roles require certain training requirements based on their responsibilities.

|  |  |  |
| --- | --- | --- |
| Category | Role | Name |
| Client Management | Project Team Representative | Rayner |
| Business Process Practitioners | Primary End-user Representative | Ms. Lesley |
| End-User Community Members | Conference Event Managers |
| Project Members | Project Manager | Rayner |
| System Analysts | Chuan Way, Samuel |
| Developers | Chuan Way, Samuel, Samu, Rayner |
| Testers | Samu, Rayner |

### 4.2.1 Training Requirements

Project Team Representative

Project Team Representative serves as a point of liaise between the project members and client. Usually, the Project Team Representative is also the Project Manager. The Project Team Representative needs to read and understand:

1. Project Plan

2. Software Requirement Specification

3. Software Design Document

4. Software Quality Assurance Plan

5. Final Report

Primary End-user Representative

The primary end-user representative is concerned with approving proposals from the Project Manager. In order to ensure that the product meets the needs of its intended users, PER needs to have a good understanding about the process and quality control of the product. This can be determined by:

1. Reviewing the Software Requirements Specification

2. Hands-on testing on the prototype

3. Receiving the final report of the completed system

End-user Community Members

End-user community members are the intended users of this system. Due to not being actively involved throughout the development stage of the system, they need to have prior training for this system in order to discover the functions and features of this system. The end-user community members should:

1. Read and understand the User Guide

2. Refer to the User Knowledge Base for further clarification

3. Read Frequently Asked Questions

Project Manager

The project manager is responsible for the overall progress of this project. To fulfil his responsibilities, he is required to have a high-level understanding of the project software development life cycle (SDLC) and the activities which are involved in it. This can be achieved by:

1. Reading and understanding the different types of SDLC from online sources

System Analysts

System analysts are mainly responsible for documenting the outlines of the system. They analyse the different aspects of project management and document them for reference purposes. In order to accomplish their tasks, system analysts must:

1. Obtain and understand the appropriate templates for each type of documentation

2. Understand the terms and guidelines used in project management such as stated in PMBOK by PMI

3. Understand the quality standards defined by ISO (ISO/IEC 25010:2011)

Developers

Developers involve in implementation of software design into the system. To ensure that the implementation meets the client’s requirements, developers need to read and understand:

1. Software Design Documentation (SDD)

2. Software Development Lifecycle (SDLC)

3. Quality standards defined by ISO (ISO/IEC 25010:2011)

4. The programming language and concept in the development environment

Testers

Testers ensures that the system meets the software quality standards as defined in the Software Quality Assurance Plan (SQAP). This is accomplished by:

1. Reading and understanding the Software Development Lifecycle (SDLC)

2. Reading and understanding the Software Design Documentation (SDD)

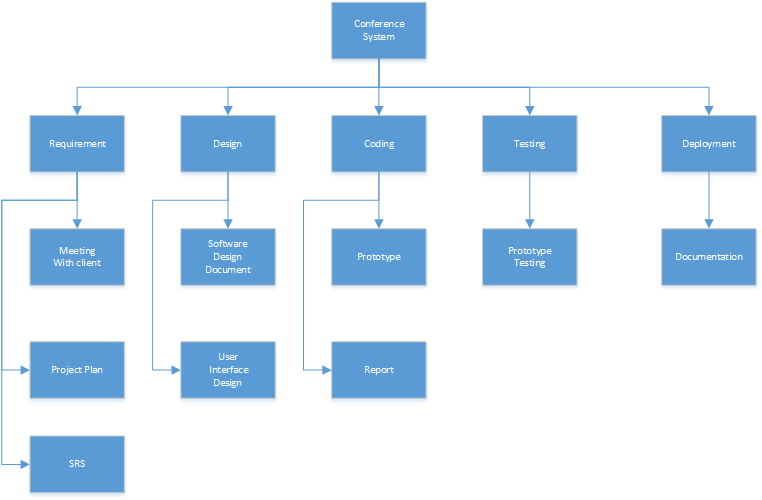
2. Reading and understanding the Software Quality Assurance Plan (SQAP)

# 5.0 Activities, Deliverables and Capital Resources

## 5.1 Deliverables

|  |  |
| --- | --- |
| Task No | Description |
| A | User requirement specification |
| B | Client pain points |
| C | Software Requirement Specification |
| D | Software Design Document |
| E | Software Quality Assurance Plan |
| F | Prototyping |
| G | Database Structure |
| H | Test Plan |

## 5.2 Activities and Tasks



# 6.0 Resources

## 6.1 Organisation

Client

Project Manager

Developer

Supervisor

Programmers

Designers

# 7.0 Risks

## 7.1 List of Risks and Probability

Indicator: **1** – Very Low **2** – Low **3** – Medium **4** – High **5** – Very High

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk** | **Probability** | **Impact** | **Severity** |
| Poor schedule and time management planning | 1 | 2 | 2 |
| Excessive schedule pressure reduces productivity | 2 | 2 | 4 |
| Lack of required knowledge / skill in the project personnel | 3 | 2 | 6 |
| Late changes to requirements | 3 | 3 | 9 |

## 7.2 Risk Assessment

Based on the table above, the risks are sorted and prioritized according to their probability, impact and severity. The first risk is quite a common problem among project teams as it commonly caused by poor punctuality, procrastination during work times, indecisiveness when facing multiple incoming or ongoing activities. The second risk involves the nature of each team member as it is possible from them to reduce the productivity of their work due to the considerably large amount of work needed to be done as they can be persistently falling behind in the task and the need to catch up all those tasks in a short amount of time. Next, the third risk is the lack of required knowledge within the team as the team member have little to basic knowledge of the ongoing project that required in which the web development area that includes PHP, HTML and JavaScript. Lastly, the fourth and last risk includes the late changes within the requirement of the system. This is where the team implements last minute important changes as it might improve the system whereas it can get into more complications.

## 7.3 Risk Mitigation Plan

|  |  |
| --- | --- |
| **Risk** | **Mitigation Plan** |
| Poor schedule and time management planning | * Prioritize important tasks first |
| Excessive schedule pressure reduces productivity | * Keep track and limit the time spent on each activities. |
| Lack of required knowledge / skill in the project personnel | * Learn online (YouTube, W3schools, etc.) |
| Late changes to requirements | * Implement Agile methodology |

As shown on the table above, the risk and their respective mitigation plans are arranged based on the severity in which the most severe will be at the bottom and the least severe will be at the top. For the first and least risk, each team member need to prioritize their tasks in which includes the other units that they have taken and decide which is more important than the other. To mitigate the second risk, each team member would be keeping track of all that the member has done and limit the time to be spent on each task in which dividing the time slot equally and considerably. Next, the third risk’s mitigation plan is to learn the knowledge outside the university whereas in this case, team members need to learn PHP, HTML and JavaScript in which they need to familiarize the concept of web based application. The last risk’s mitigation plan is to create a “sprint” session on every one or two weeks to ensure that the software development is on track. Also, a backlog also needed to be created on the first week and it need to be referred back and update it on each end of a “sprint” session.

# 8.0 Schedule

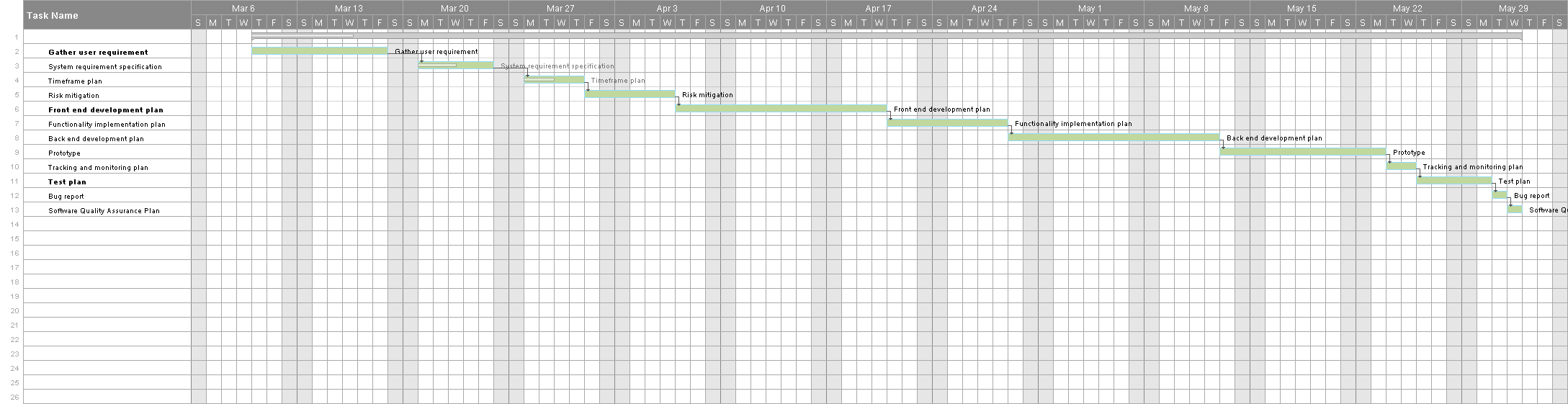
## 8.1 Delivery Phases

## 8.1.1Overview

|  |  |  |  |
| --- | --- | --- | --- |
| **Job No.** | **Description** | **Immediate predecessor** | **Estimated Time (hours)** |
| A | Gather user requirement | - | 2 |
| B | System requirement specification | A | 10 |
| C | Timeframe plan | B | 15 |
| D | Risk mitigation | C | 10 |
| E | Front end development plan | D | 20 |
| F | Functionality implementation plan | E | 15 |
| G | Back end development plan | F | 35 |
| H | Prototype | G | 35 |
| I | Tracking and monitoring plan | D | 10 |
| J | Test plan | I | 10 |
| K | Bug report | J | 5 |
| L | Software Quality Assurance Plan | K | 10 |
|  | Total Hours |  | 167 |

Table above shows the overview of the numbers of tasks we are going to work with during the process of developing this project. There are to be completed tasks created purposely to ensure that we could achieve every tasks and produce a quality project. The tasks listed will be divided into phases and critical path being created to ensure we could complete the tasks in each phase under the expected completion of time.

## 8.1.2 Project Timeline



## 8.1.3 Assumptions

The following assumptions were made in preparing the Project Plan:

* Management will ensure that project team members are available as needed to complete project tasks and objectives.
* A server will be provided for us to test and run the solution
* Failure to identify changes to draft deliverables within the time specified in the project timeline will result in project delays.
* All project participants will abide by the guidelines identified within this plan.
* The Project Plan may change as new information and issues are revealed.

# =