Software Project Management Plan for "Tender Management System"

1. Introduction

The Software Project Management Plan (SPMP) for a Tender Management System is a critical document that outlines the project management approach, processes, and strategies for the development of a system aimed at streamlining the tendering process. This plan serves as a blueprint for effectively managing the project, ensuring that it stays on track, meets its objectives, and delivers a robust and efficient tender management solution..

In this SPMP, we will detail the project's scope, objectives, stakeholders, and the roles and responsibilities of the project team members. We will also outline the project schedule, budget, risk management strategies, and quality assurance processes.

I. Project Overview

The project involves the development of a state-of-the-art Tender Management System, aimed at revolutionizing the way our organization handles the tendering process. This system will serve as a centralized platform to streamline the entire tender lifecycle, from publishing and bidding to evaluation and awarding This project overview provides a high-level glimpse into our mission to elevate the tendering process, ultimately benefiting both our organization and our valued stakeholders with a digital solution that offers several benefits, including:

- Efficiency and Time Savings
- Optimization and Conflict Resolution
- User-Friendly Interface
- Flexibility and Adaptability
- Collaboration and Multi-User Support
- Error Reduction
- Cost-Effectiveness
- User Satisfaction
- Increased Productivity

By achieving these objectives, an online tender management system becomes an invaluabletool for businesses, and various other sectors, contributingto better time management, streamlined operations, and improved overall productivity.

II. Project Deliverables

1. Preliminary Project Plan 01.08.2023

2. Requirements Specification	10.08.2023
3. Analysis [Object model, Dynamic model, and User interface]	17.08.2023
4. Architecture Specification	26.08.2023
5. Component/Object Specification	09.09.2023
6. Source Code	18.09.2023 - 31.09.2023
7. Test Plan	01.10.2023 - 07.10.2023
8. Final Product Demo	08.10.2023 - 12.10.2023

III. Evolution of this document

This document will be updated as the project progresses. Updates should be expected in the following sections:

i. **References** - updated as necessary.
ii. **Definitions, acronyms, and abbreviations** - updated as necessary.
iii. **Organizational Structure** will be updated as the team leaders are assigned for each phase.
iv. **Technical Process -** this section will be revised appropriately as the requirements and design decisions become clearer.
v. **Schedule –** as the project progresses, the schedule will be updated accordingly.

IV. Revision History

Revision	Date	Updated By	Update Comments
0.1	01.07.2023	Souvik Sen	First Draft
0.2	01.09.2023	Ankush Banerjee	Second Draft/Final Draft

V. References

i. Team Website
ii. Project Scope
iii. Case Studies
- https://www.academia.edu/2465651/Tender_Management_System_For_JKR_Besut_System
- https://www.cognizant.com/us/en/case-studies/tender-management-solution

VI. Definitions, Acronyms, and Abbreviations

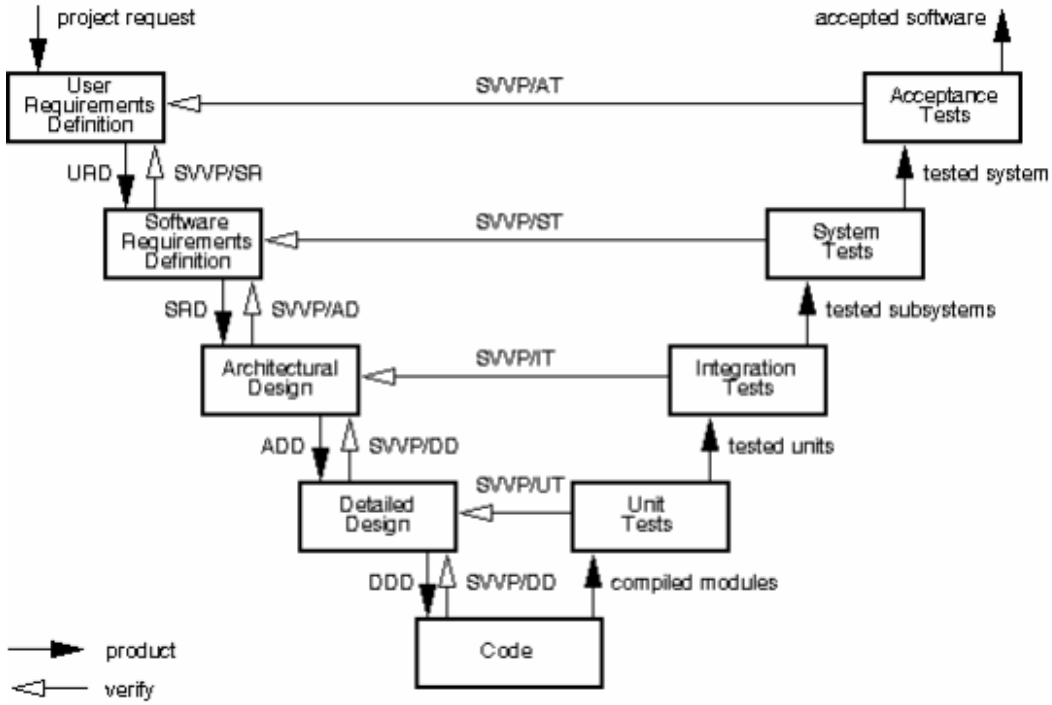
i. UML - Unified Modeling Language
ii. AD - Architectural Design
iii. ADD - Architectural Design Document
iv. ATP - Acceptance Test Plan Client Monitor, Agent or Submitter
v. DD - Detailed Design

vi. DDD - Detailed Design Document
vii. IT - Integration Test
viii. PM - Project Manager
ix. SR - Software Requirements
x. SRD - Software Requirements Document
xi. STD - Software Transfer Document
xii. ST - System Test
xiii. SUM - Software User Manual
xiv. SVVP - Software Verification and Validation Plan
xv. TBD – To Be Decided
xvi. TR - Transfer Phase
xvii. UR - User Requirements
xviii. URD - User Requirements Document
xix. UTP - Unit Test Plan

2. Project Organization

I. Process Model

The process used for this project will be a V-model such that each stage of the model allows us to do testing after completing a phases. Referring to the diagram below, each phase is tested after completion.



II. Organizational Structure

Team Members –

I. Souvik Sen
II. Ankush Banerjee
III. Abhimanyu Kanjilal
IV. Niladri Modak

Name	Organization/ Position	Contact Information
Souvik Sen	ITech Project Manager	souvik101@gmail.com 6206386223
Ankush Banerjee	ITech Business Analyst	ankush78@gmail.com 9834352142

Days	Deliverable	Team Leader	Deliverable Description
9	1	Souvik Sen	Project Plan
7	2	Ankush Banerjee	Requirements Specification
9	3	Abhimanyu Kanjilal	Analysis
13	4	Niladri Modak	Architecture Specification
9	5	Souvik Sen	Component/Object Specification
14	6	Ankush Banerjee	Source Code
7	7	Abhimanyu Kanjilal	Test Plan
5	8	Niladri Modak	Final Deliverable

III. Organizational Boundaries and Interfaces

Team leaders throughout each development of the phases will be responsible for coordinating team meetings, updates, communications, and team deliverables.

IV. Project Responsibilities

For the most vital responsibilities per phase of each team members, please refer to segment 2.2. Ultimately the project team is responsible for the successful delivery of the product. The team member tasks per deliverable according to expertise and the phases are as given below:

1. Project Plan – Whole Team
2. Requirements Specification – TBD
3. Analysis – TBD
4. Architecture Specification – TBD
5. Component/Object Specification – TBD
6. Source Code – TBD
7. Test Plan – TBD
8. Final Deliverable – Entire Team

Name	**Organization/ Position**	**Role/Responsibilities**
Souvik Sen	ITech Project Manager	• Managing and leading the project team. • Developing and maintaining a detailed project plan. • Monitoring project progress and performance. • Managing project evaluation and dissemination activities. • Develop corrective actions when necessary.
Ankush Banerjee	ITech Business Analyst	• Prepare reports on project plans, status, progress, risks, deadlines and resource requirements. • Develop and perform work flow analysis to find out the difficulties in reaching goals. • Provide project cost estimates.
Abhimanyu Kanjilal	ITech Designer	• Propose effective design solutions to meet project goals. • Prepare design layouts and sketches according to company design standards. • Keeping of records and files.

Niladri Modak	ITech Staff	• Documentation of daily activities. • Making kick-off meeting reports. • In-charge of materials needed for team building activities.

3. Managerial Process

I. Management Objectives and Priorities

The management objective is to deliver the product in time and of high quality. The PM and QAM work together to achieve this by respectively checking that progress is made as planned and monitoring the quality of the product at various stages.

II. Assumptions, Dependencies, and Constraints

In this project plan, a number of factors are taken into account. The following list shows the way milestones on various project phases have been scheduled:

• The team budget of 5 persons x 365 hours = 1825 hours
• The project deadline of October 12th.
• The final presentation is on October 12th.
• The peer evaluation deadline is on October 8th.
• Other days the weekends holiday is closed (August 5th, August 12th, August 19th, August 26th, September 3rd, September 10th, September 17th, September 24th, September 31th, October 7th).

NOTE: Due to the deadline of 12th October 2016, running out of time will have its reflection on the product, and not on the duration of the project. By assigning a priority to every user requirement, a selection can be made of user requirements that may be dropped out if time runs out.

III. Risk Management

Risk management is crucial to ensure the project's success and mitigate potential issues that could impact the project's timeline, budget, and quality. Here is an outline of risk management considerations for an SPMP in the context of an tender management system project:

1. **Risk Identification:**
   - **i.** Technical Risks:
     - Software Development Challenges: Identify potential issues in developing the software, such as coding errors, integration problems, or scalability issues.
     - Data Security: Recognize the risk of data breaches, unauthorized access, or data loss.
     - Server and Infrastructure Failure: Consider the possibility of server downtime, hardware failures, or network issues.
     - Third-party Dependencies: Assess risks associated with third-party APIs or services used in the system.
   - **ii.** Operational Risks:
     - User Adoption: Anticipate resistance or difficulties in getting users to adopt the new system.
     - Maintenance Challenges: Recognize the potential for ongoing maintenance and updates.
     - User Errors: Acknowledge the possibility of user errors or misuse of the system.
   - **iii.** External Risks:
     - Regulatory Changes: Be aware of changes in data privacy laws or other regulations that might affect the system.
     - Competitive Threats: Consider the potential impact of competitors offering similar solutions.
     - Market Demand: Evaluate whether there is a consistent demand for the service.

2. **Risk Assessment:**
   - **i. Impact Analysis:** Assess the potential impact of each identified risk on the project's objectives, including schedule, budget, and quality.
   - **ii. Probability Assessment:** Evaluate the likelihood of each risk occurring. Use a qualitative or quantitative approach to assign probabilities.
   - **iii. Risk Prioritization:** Rank risks based on their combined impact and probability to prioritize mitigation efforts.

3. **Risk Mitigation:**
   - **i. Risk Avoidance:** Develop strategies to avoid high-impact, high-probability risks. For example, by simplifying features or conducting thorough security testing.
   - **ii. Risk Transfer:** Consider transferring certain risks to third parties, such as outsourcing security audits or using external hosting services.
   - **iii. Risk Reduction:** Implement measures to reduce the impact or probability of identified risks. This might include regular code reviews, scalability planning, or contingency planning for key personnel changes.

iv. **Risk Acceptance:** Acknowledge and document certain low-impact or low-probability risks that can be tolerated without major project disruption.

4. **Risk Monitoring and Control:**
   i. **Regular Review:** Continuously monitor and review the identified risks throughout the project's lifecycle. New risks may emerge, and existing ones may change.
   ii. **Contingency Plans:** Develop contingency plans for high-priority risks. These plans should outline specific actions to be taken if the risk is realized.
   iii. **Communication:** Maintain open communication within the project team and stakeholders regarding risks and their status. Ensure everyone is aware of potential issues and mitigation efforts.
   iv. **Documentation:** Keep detailed records of identified risks, assessments, mitigation strategies, and their outcomes.

5. **Risk Response Planning:**
   i. **Risk Response Team:** Assign responsibilities for risk management to specific team members. Clearly define roles and responsibilities for risk mitigation and monitoring.
   ii. **Budget Allocation:** Ensure that the project budget includes provisions for risk management activities, such as security audits or additional development resources.
   iii. **Schedule Flexibility:** Build flexibility into the project schedule to accommodate unforeseen risks and mitigation activities.

6. **Review and Update:**
   Periodically review and update the risk management plan to reflect the evolving project environment and emerging risks.

IV. Monitoring and Controlling Mechanisms

The monitoring of progress is done by the PM using the following means:

i. Weekly project status meetings
ii. Shared document repository
iii. Project tracking by MS project plan
iv. Tracking utilizing baselines in MS project

4. Technical Process

I. Methods, Tools, and Techniques

The project will be implemented utilizing V-model methodology, and tools such as Dreamweaver, Microsoft Project, Star UML, Java, MySQL, QTP, and Load Runner will be utilized. The risks for each category are listed to complete the project successfully. For each risk, a description, a probability of occurrence, the associated action and the impact of the risk are given.

II. Software Documentation

Documentation such as Project Charter, Business Requirement Document, Functional Specification document, Cost Benefit Analysis, Technical Specification document, Detail Design Document, Test Plan, Implementation Plan, Detailed Project Report, and Benefit Realization document.

III. Project Support Functions

All project support documents will be completed in applicable phases.

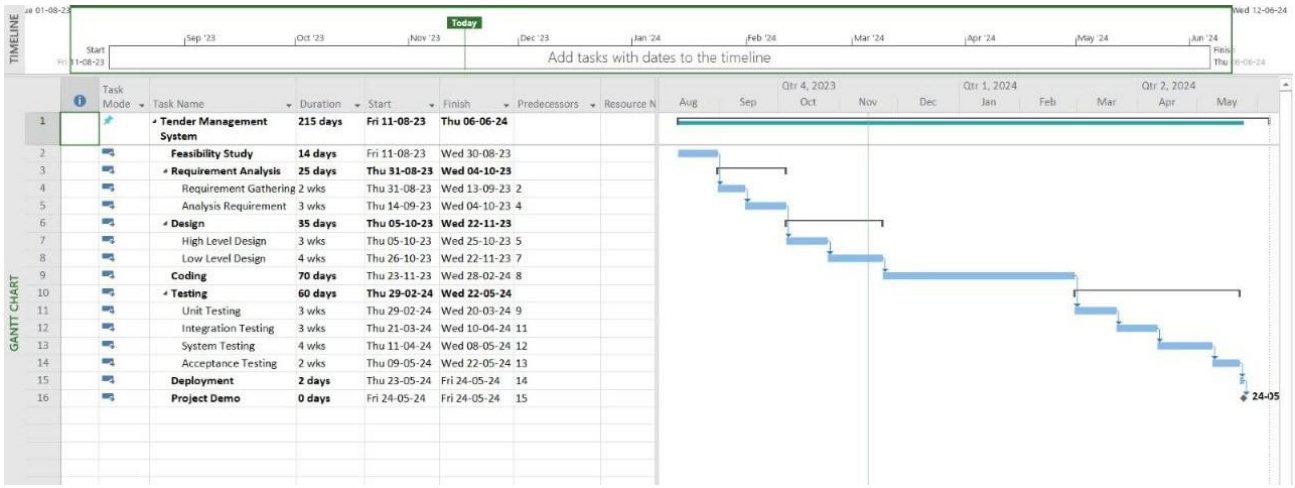
5. Work Elements, Schedule, and Budget

- The project is accounted for project resources, technologies and tools required to whole analysis, implementation, and test of the application.
- The project lead will be rotated for each phase within 5 team members.
- The document for all phases will be revised in subsequent phases if applicable.

I. Budget and Resource Allocation

Salary	280,000.00
Office Operations/Supplies/Equipment/Consumables	60,000.00
Miscellaneous	14,000.00
Total	**Rs. 354,000.00**

II. Schedule



	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Resource N
1		**Tender Management System**	**215 days**	**Fri 11-08-23**	**Thu 06-06-24**		
2		**Feasibility Study**	**14 days**	Fri 11-08-23	Wed 30-08-23		
3		**Requirement Analysis**	**25 days**	**Thu 31-08-23**	**Wed 04-10-23**		
4		Requirement Gathering	2 wks	Thu 31-08-23	Wed 13-09-23	2	
5		Analysis Requirement	3 wks	Thu 14-09-23	Wed 04-10-23	4	
6		**Design**	**35 days**	**Thu 05-10-23**	**Wed 22-11-23**		
7		High Level Design	3 wks	Thu 05-10-23	Wed 25-10-23	5	
8		Low Level Design	4 wks	Thu 26-10-23	Wed 22-11-23	7	
9		**Coding**	**70 days**	Thu 23-11-23	Wed 28-02-24	8	
10		**Testing**	**60 days**	**Thu 29-02-24**	**Wed 22-05-24**		
11		Unit Testing	3 wks	Thu 29-02-24	Wed 20-03-24	9	
12		Integration Testing	3 wks	Thu 21-03-24	Wed 10-04-24	11	
13		System Testing	4 wks	Thu 11-04-24	Wed 08-05-24	12	
14		Acceptance Testing	2 wks	Thu 09-05-24	Wed 22-05-24	13	
15		**Deployment**	**2 days**	Thu 23-05-24	Fri 24-05-24	14	
16		**Project Demo**	**0 days**	Fri 24-05-24	Fri 24-05-24	15	