Software Project Management Plan for "Online Purchasing System"

1. Introduction

In the MedCare project, a comprehensive system is to be developed to facilitate an Online Hospital Management System. The software application will encompass a minimum of three core functions that will interact via the internet. This system will encompass essential features for hospital management, including patient admissions, medical records, and appointment scheduling. The entire system will be designed and implemented using JAVA to ensure ease of maintenance and future scalability.

I. Project Overview

The objective of this project is to develop a prototype Online Patient Management System for MedCare Hospitals. This web-based application will function as a virtual platform, akin to an online hub, where users can access the hospital's services and manage various aspects of patient care. Users will have the ability to view medical service offerings, select specific treatments, and organize them in a patient profile. As the patient journey advances, additional information will be required to facilitate the process. Typically, patients will be prompted to provide essential details such as personal information, medical history, preferred appointment times, and insurance particulars. Upon successful submission, an automated email notification will be dispatched to the patient, confirming the reception of their medical appointment request or registration.

II. Project Deliverables

1. Preliminary Project Plan	25.08.2023
2. Requirements Specification	9.09.2023
3. Analysis [Object model, Dynamic model, and User interface]	29.09.2023
4. Architecture Specification	29.10.2023
5. Component/Object Specification	28.11.2023
6. Source Code	18.12.2024 - 27.01.2024
7. Test Plan	28.01.2024 - 18.02.2024
8. Final Product Demo	19.02.2024 - 26.02.2024

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.

Revision History

Revision	Date	Updated By	Update Comments
0.1	30.09.2023	Arkapratim Ghosh	First Draft
0.2	01.10.2023	Arkapratim Ghosh	Second Draft/Final Draft

IV. References

i. Team Website
http://wwwis.win.tue.nl/2M390/projects/spingrid/spmp.pdf
ii. Project Scope
Project Management Institute, "A Guide to the Project Management Body of Knowledge (PMBOK® Guide)," 6th Edition.
iii. Case Studies
- XYZ Hospital Case Study, [Reference details if available].
- ABC Healthcare System Case Study, [Reference details if available].

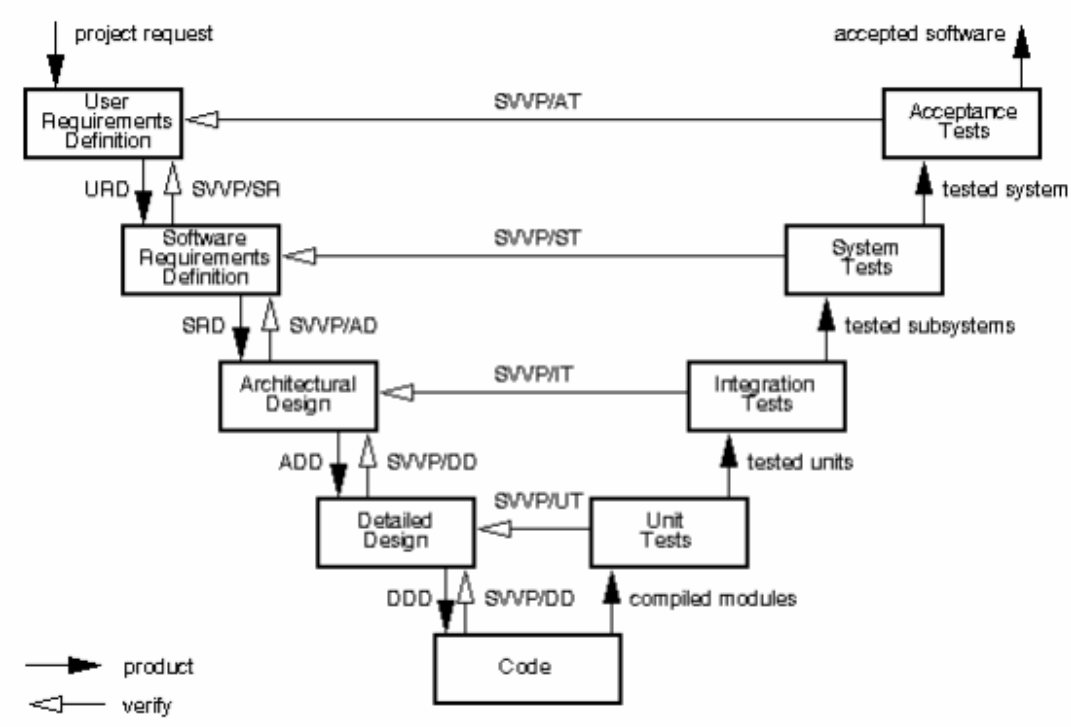
V. Definitions, Acronyms, and Abbreviations

I. SRS: Software Requirements Specification
II. API: Application Programming Interface
III. UI: User Interface
IV. UX: User Experience
V. GUI: Graphical User Interface
VI. SQL: Structured Query Language
VII. DBMS: Database Management System
VIII. HTTP: Hypertext Transfer Protocol

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. Arkapratim Ghosh
ii. Arnold Das

Name	Organization/ Position	Contact Information
Arkapratim Ghosh	ITech Project Manager	arkapratimghosh1264@gmail.com 9330450430
Arnold Das	ITech Business Analyst	dasa@gmail.com 09468847142

Days	Deliverable	Team Leader	Deliverable Description
15	1	Arkapratim Ghosh	Project Plan
20	2	Arnold Das	Requirements Specification
30	3	Arnold Das	Analysis
30	4	Arkapratim Ghosh	Architecture Specification
20	5	Arnold Das	Component/Object Specification
40	6	Arkapratim Ghosh	Source Code
22	7	Arkapratim Ghosh	Test Plan
8	8	Arnold Das	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
Arkapratim Ghosh	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.

Arnold Das	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.
Arnold Das	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.
Arkapratim Ghosh	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 2 persons x 365 hours = 730 hours
• The project deadline of August 12th.
• The final presentation is on August 12th.
• The peer evaluation deadline is on August 8th.
• Other days the weekend holiday is closed (August 27th, September 3rd, September 10th, September 17th, September 24th, October 1st, October 8th, October 15th, October 22nd).

NOTE: Due to the deadline of 12th August 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

This section mentions any potential risks for the project. Also, schedules or methods are defined to prevent or to reduce the risks as below:

i. Technology risk
ii. People risk
iii. Financial risk
iv. Market risk
v. Structure/process risk

The following are the possible risks to be encountered during the development of the project and how they can be prevented.

1. Miscommunication

   Prevention: Team members should not hesitate to ask and re-ask questions if things are unclear. Team members should have a written copy of the tasks assigned to them every meeting.

   Correction: When it becomes clear that miscommunication is causing problems, the team members should gather in a meeting to clear things up.

2. Time shortage

   Prevention: Care is taken to plan enough spare time.

   Correction: When tasks fail to be finished in time or when they are finished earlier than planned the project planning is adjusted

3. Illness or absence of team members

   Prevention: Team members should warn their team leader or the PM timely before a planned period of absence.

   Correction: Work can be taken over quickly by someone else or be distributed among the team members if a person gets ill.

Monitoring and Controlling Mechanisms:

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

Project Kick-off Meetings

The project group meetings take place within the class room or through chat. These meetings are meant to inform each other of the progress made on various tasks and to assign new tasks.

Progress Report

Progress report is done every Friday. This is meant to inform and show the progress in the development of the project and how things are going.

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

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

Budget and Resource Allocation

Salary	245,000.00
Office Operations/Supplies/Equipment/Consumables	40,000.00
Miscellaneous	10,000.00
Total	**Rs. 2,95,000.00**

Schedule

Task Mode	Task Name	Duration	Start	Finish
	Identify the comapny	4 days	Wed 23-08-23	Mon 28-08-23
	Conceptualize the project	1 day	Tue 29-08-23	Tue 29-08-23
	Establish the vision, mission, objectives	3 days	Wed 30-08-23	Fri 01-09-23
	Identify the scope of the project	1 day	Mon 04-09-23	Mon 04-09-23
	Develop Preliminary schedules and cost estimates	1 day	Tue 05-09-23	Tue 05-09-23
	Create project charter	1 day	Wed 06-09-23	Wed 06-09-23
	Develop business case for the project	1 day	Thu 07-09-23	Thu 07-09-23
	Select Development tools	2 days	Fri 08-09-23	Mon 11-09-23
	Identify Customer needs	3 days	Tue 12-09-23	Thu 14-09-23
	Establish target specifications	2 days	Fri 15-09-23	Mon 18-09-23
	Generate product concepts	2 days	Tue 19-09-23	Wed 20-09-23
	Refine product specifications	2 days	Thu 21-09-23	Fri 22-09-23
	Plan the remaining development project	1 day	Mon 25-09-23	Mon 25-09-23
	Detail design	4 days	Tue 26-09-23	Fri 29-09-23
	3D modelling	5 days	Mon 02-10-23	Fri 06-10-23