

# Software Project Management Plan for “Online Library Management System”

## 1. Introduction

The Online Library Management System is a fully automated system that allows users to both request and borrow books from the library. Authorities in charge can review these requests and allocate books accordingly based on their requirements. Users have the flexibility to select books of their preference by specifying authors and categories. This product offers a comprehensive solution for managing an online library.

### I. Project Overview

This project aims to develop a prototype for an Online Library Management System. It operates as a web-based application, essentially a virtual library accessible on the internet. Users have the ability to borrow books and ensure their timely return. Additionally, there are provisions to extend the borrowing duration for any issued books. The system also incorporates a payment section for calculating and collecting late fines and charges from users. Administrators can search for user details and have the capability to view and modify the database according to their requirements.

### II. Project Deliverables

1. Preliminary Project Plan	28.08.2023
2. Requirements Specification	20.09.2023
3. Analysis [Object model, Dynamic model, and User interface]	12.10.2023
4. Architecture Specification	21.11.2023
5. Component/Object Specification	10.12.2023
6. Source Code	30.12.2023 - 20.01.2024
7. Test Plan	20.01.2024 - 15.02.2024
8. Final Product Demo	15.02.2024 - 03.03.2024

### 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	28.08.2023	Ayush Dev	First Draft
0.2			Second Draft/Final Draft

## IV. References

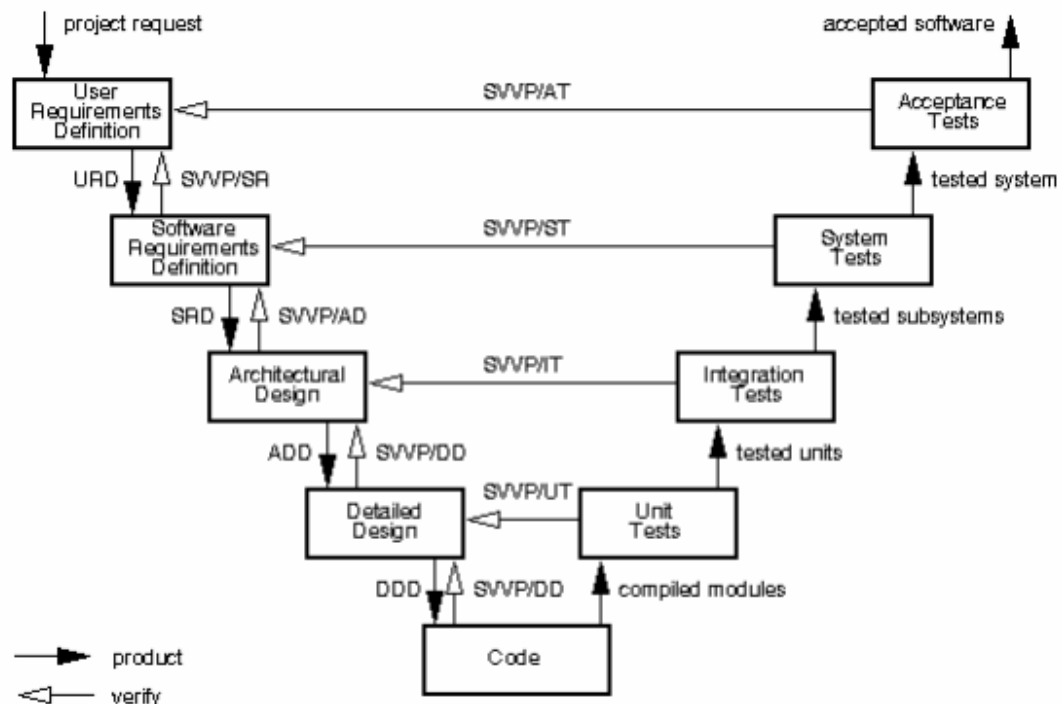
- <https://www.studocu.com/>
- <https://www.academia.edu/>

## V. Definitions, Acronyms, and Abbreviations

- UML: Unified Modeling Language
- OLMS: Online Library Management System
- DBMS: Database Management System
- OTP: One Time Password
- TBD: To Be Decided

## 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. Ayush Dev
- ii. Bristi Maity

Name	Organization/ Position	Contact Information
Ayush Dev	Project Manager	devayushya@gmail.com 09051001800
Bristi Maity	Business Analyst	bristimaity@gmail.com 09468847142

Days	Deliverable	Team Leader	Deliverable Description
22	1	Ayush Dev, Bristi Maity	Project Plan
22	2	Ayush Dev	Requirements Specification
38	3	Bristi Maity	Analysis
14	4	Bristi Maity	Architecture Specification
19	5	Ayush Dev	Component/Object Specification
20	6	Bristi Maity	Source Code
25	7	Bristi Maity	Test Plan
16	8	Ayush Dev	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 – Ayush Dev
3. Analysis – Bristi Maity
4. Architecture Specification – Ayush Dev
5. Component/Object Specification – TBD
6. Source Code – Bristi Maity
7. Test Plan – TBD
8. Final Deliverable – Entire Team

Name	Organization/Position	Role/Responsibilities
Ayush Dev	Project Manager	<ul style="list-style-type: none"> <li>Managing and leading the project team.</li> <li>Developing and maintaining a detailed project plan.</li> <li>Monitoring project progress and performance.</li> <li>Managing project evaluation and dissemination activities.</li> <li>Develop corrective actions when necessary.</li> </ul>
Bristi Maity	Business Analyst	<ul style="list-style-type: none"> <li>Prepare reports on project plans, status, progress, risks, deadlines and resource requirements.</li> <li>Develop and perform work flow analysis to find out the difficulties in reaching goals.</li> <li>Provide project cost estimates.</li> </ul>

### 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 project time of 2 persons x 4440 hours = 8880 hours
- The project deadline of March 03<sup>rd</sup>.
- The final presentation is on Feb 25<sup>th</sup>.
- The peer evaluation deadline is on Feb 20<sup>th</sup>.
- Other days the weekends holiday is closed (September 5<sup>th</sup>, September 12<sup>th</sup>, September 19<sup>th</sup>, October 26<sup>th</sup>, November 3<sup>rd</sup>, November 10<sup>th</sup>, November 17<sup>th</sup>, December 24<sup>th</sup>, December 31<sup>th</sup>, January 7<sup>th</sup>, January 21<sup>th</sup>, January 28<sup>th</sup>, February 5<sup>th</sup>, February 12<sup>th</sup>, February 19<sup>th</sup>, February 27<sup>th</sup> ).

NOTE: Due to the deadline of 03<sup>rd</sup> March 2024, 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	2,00,000.00
Office Operations/Supplies/Equipment/Consumables	60,000.00
Miscellaneous	<u>48,312.00</u>
<b>Total</b>	<b>Rs. 308,312.00</b>

### **Schedule**