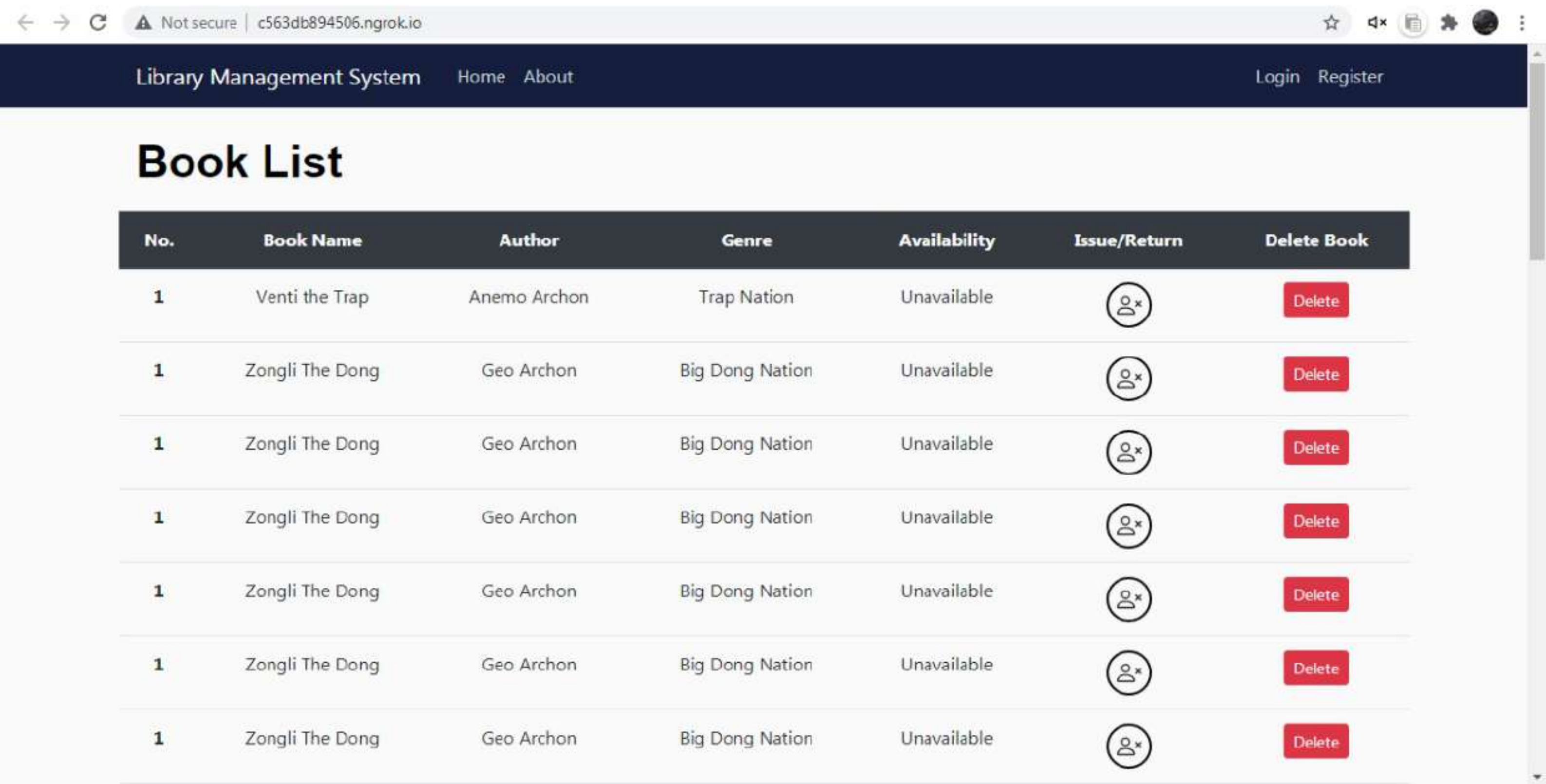


Book List

No.	Book Name	Author	Genre	Availability	Issue/Return	Delete Book
1	Venti the Trap	Anemo Archon	Trap Nation	Unavailable		Delete
1	Zongli The Dong	Geo Archon	Big Dong Nation	Unavailable		Delete
1	Zongli The Dong	Geo Archon	Big Dong Nation	Unavailable		Delete
1	Zongli The Dong	Geo Archon	Big Dong Nation	Unavailable		Delete
1	Zongli The Dong	Geo Archon	Big Dong Nation	Unavailable		Delete
1	Zongli The Dong	Geo Archon	Big Dong Nation	Unavailable		Delete
1	Zongli The Dong	Geo Archon	Big Dong Nation	Unavailable		Delete

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	1a
Title of Experiment	To identify the Software Project
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	29/01/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtaine
1	Presentation	5	
2	Project Description	5	
	Total	**10**	

Staff Signature with date

Aim: To Frame a project team, analyze and identify a Software project

Team Members:

Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Member/Rep**
2	RA1911027010052	A Prithivi	**Member**

3	RA1911027010062	Muppuri Siva Charan	**Member**

Project Title: Library Management System Project Description

Usually, large companies and organizations have a vast army of human resources working under them.
The Library Management System is an application for assisting a librarian in managing a book library in a university. The system would provide a basic set of features to add/update members, add/update books, and manage check in specifications for the systems based on the client's statement of need.
Its Development includes the establishment and maintenance of back-end database and front-end application development aspects. For the former require the establishment of data consistency and integrity of the strong data security and good libraries. As for the latter requires the application fully functional, easy to use and so on.

This project aims to build an Library Management System which mainly focuses on basic operations in a library like adding new books, and updating new information, searching books and members and returning books. We can enter the record of new books and retrieve the details of books available in the library. We can issue the books to the students and maintain their records and can also check how many books are issued and stock available in the library. In this project we can maintain the late fine of students who return the issued books after the due date.

Result: Thus, the project team formed and the project is described

DEPT. Of Computer Science Engineering SRM IST,

Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	1b
Title of Experiment	Create Business Case, Arrive at a Problem Statement
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan

Register Number	RA1911027010058
Date of Experiment	29/01/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtaine
1	Presentation	5	
2	Business Case	5	
	Total	**10**	

Staff Signature with date

Aim: To create a business case and Arrive at a Problem Statement for the Library Management System.

TWO PAGE BUSINESS CASE TEMPLATE

DATE	29/01/2021
SUBMITTED BY	Yuvraj Singh Chauhan
TITLE / ROLE	Library Management System

THE PROJECT

In bullet points, describe the problem this project aims to solve or the opportunity it aims to develop.

- The Library Management system aims to streamline the administration system in a Library.
- It provides an interface which provides easy and concise access to the management of a library.
- Work can be done by a very small number of people.
- This project can free up manual labour costs which intun can be used to implement additional value added services.

THE HISTORY

In bullet points, describe the current situation.

- In managing a library and its records, excess of physical records which have to be stored which takes up space and time.
- The greater amount of funds has been put to the labour in managing the library.
- False return and borrow claims are being forged in various cases.
- Automating the management can help streamline the process safely and securely.

LIMITATIONS

List what could prevent the success of the project, such as the need for expensive equipment, bad weather, lack of special training, etc.

- high end encryptions not used so it can be hacked.
- Multi Platform usage may be limited.
- Takes time to be integrated into the workflow of the company.
- User level restrictions are very lenient.

APPROACH

List what is needed to complete the project.

- The management system can ensure efficient access to information which is imperative for businesses.
- It can facilitate continued professional development and self-lead training.
- Very easy to learn which anyone in staff can make use of it without prior knowledge.
- Electronic information is easier to search through than physical texts.
- Ability to add on additional services if needed.

FITS BENE

In bullet points, list the benefits that this project will bring to the organization.

- The borrower details are stored & maintained.
- It is easy to do library audits any time as records are maintained by the highly efficient software which is easy to access.
- It is simple to maximize performance of the libraries with the dynamic reports, graphs and charts to review or track progress for better decision-making.
- Such systems are often updated & maintained just to ensure that user databases are confidential and secure at every time.
- The automated system allows flexible information access. It also allows the users to access

information both offline and online even on their mobile phones.

Result: Thus the business case was prepared and the problem statement was arrived.

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	2
Title of Experiment	***Identification of Project Methodology and Stakeholder Description template***
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	07/02/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Presentation	5	
2	Project Methodology	2.5	
3	Stakeholder Identification	2.5	
	Total	**10**	

Staff Signature with date

Aim

To identify the appropriate Process Model for the project and prepare Stakeholder and User

Description.

Team Members:

Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Lead**
2	RA1911027010052	A Prithivi	**Member**
3	RA1911027010062	Muppuri Siva Charan	**Member**

Project Title: <Library Management System>

Incorporate ***Identification of Project Methodology and Stakeholder Description template***

STAKEHOLDERS:

Stakeholder	Category	Interest (H/L)	Influence (H/L)	Needs and Wants
Library Owner	Internal	H	H	Should not go over budget
Library Manager	Internal	L	H	Easy way to manage books and accessibility
Cataloguing Librarian	Internal	L	H	Easy way to view and manage books
Acquisition Manager	Internal	L	H	Recommend popular books to acquire
Finance Manager	Internal	L	H	Should be worth the money
Library Consultant	Internal	H	L	Complexity of interface to 3rd party

Funders	Internal/External	H	H	Cost should be minimal
Students	External	H	L	Borrow and return books
Teachers	External	H	L	Books related to their course should be available
Doctors, Scientists	External	L	H	Use library as research environment
Media	External	L	L	Books related to current affairs should be available

METHODOLOGY:

Definition of objectives:

a) To build a system that can receive input and generate automatically output in easy way and short time.
b) To build a monitoring system that is able to monitor and manage all library operations efficiently.
c) Give an opportunity to librarians to reduce mistakes that always happen during manual method.
d) To store properly the library items in order to maintain their security.
e) To enter and preserve details of the various issues and keep a track on their returns.

Specifications of requirements:

In this step, there are two main operations: problem comprehension or review and definition of specifications. The goal of problem analysis is to consider the issue and its context, as well as the specifications of the new method to be created. The specifications must be defined in the requirement specification document until the issue is evaluated and the fundamentals understood. Both technical and performance specifications must be defined in the requirements document; the formats of inputs and outputs etc.

System selection:

A library management system is an example of an information system. An information system, whether it is computerised or not, is a system that represents objects in a physical system, for example, information resources in a library collection.

System implementation:

The process starts with the entities involved in the system, with proceeding towards the ER Diagram in order to identify the meaningful relationship between the entities. Next is the table design which fulfils the normalization principle of relational database systems and finally the physical tables are created with the necessary and relevant data in them.

System evaluation:

a) The way the management structure functions.
b) Internal operations relating to information materials, such as cataloguing and classification, indexing, etc.
c) Library/information services to users.
d) New programmes of service delivery.

USER STORIES:

- As a librarian, I want to be able to store the data of the students who come and issue a book from the library.
- As a developer, I want to be able to find and display topic specific resources so that I can customize a topic based on the library web site.
- As a student, I want to be able to quickly browse through the website so that i can find books related to my topic with minimal time investment.
- As a student, I want to be able to find different genres of books so that I can pick books of my interest.

- As a teacher, I want to be able to find books related to my course so that I can use that as a reference and to make notes for the students.

Result

Thus the Project Methodology was identified stakeholders were described.

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	3
Title of Experiment	Identify/collect the Requirements and document them as Infrastructure Requirements, Functional Requirements and Non-Functional Requirements
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	12/02/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Presentation	5	
2	Requirements document	5	
	Total	**10**	

Staff Signature with date

Aim

To Identify and document the Requirements of a Software system

Team Members:

Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Lead**
2	RA1911027010052	A Prithivi	**Member**
3	RA1911027010062	Muppuri Siva Charan	**Member**

Executive Summary

Library management system is a project which aims in developing a computerized system to maintain all the daily work of a library .This project has many features which are generally not available in normal library management systems like facility of user login. It also has a facility of admin login through which the admin can monitor the whole system. It has also a facility where student after logging in their accounts can see list of books issued and its issue date and return date and also the students can request the librarian to add new books by filling the book request form.The librarian after logging into his account ie admin account can generate various reports such as student report , issue report, teacher report and book report Overall this project of ours is being developed to help the students as well as staff of library to maintain the library in the best way possible and also reduce the human efforts.

Project Scope

S.No	Activities In Scope	Activities Out of Scope
1.	Designing Project Layout	Issuing a book from the library
2.	Planning methods of project work	Funding for standard uplift

4.	Develop and test modules	Promoting chain marketing and branding
5.	Performing quality checks	Reading environment
6.	Constraining software size	Marginal tariff setting for services
7.	Public Deployment/Hosting	Proper customer communication

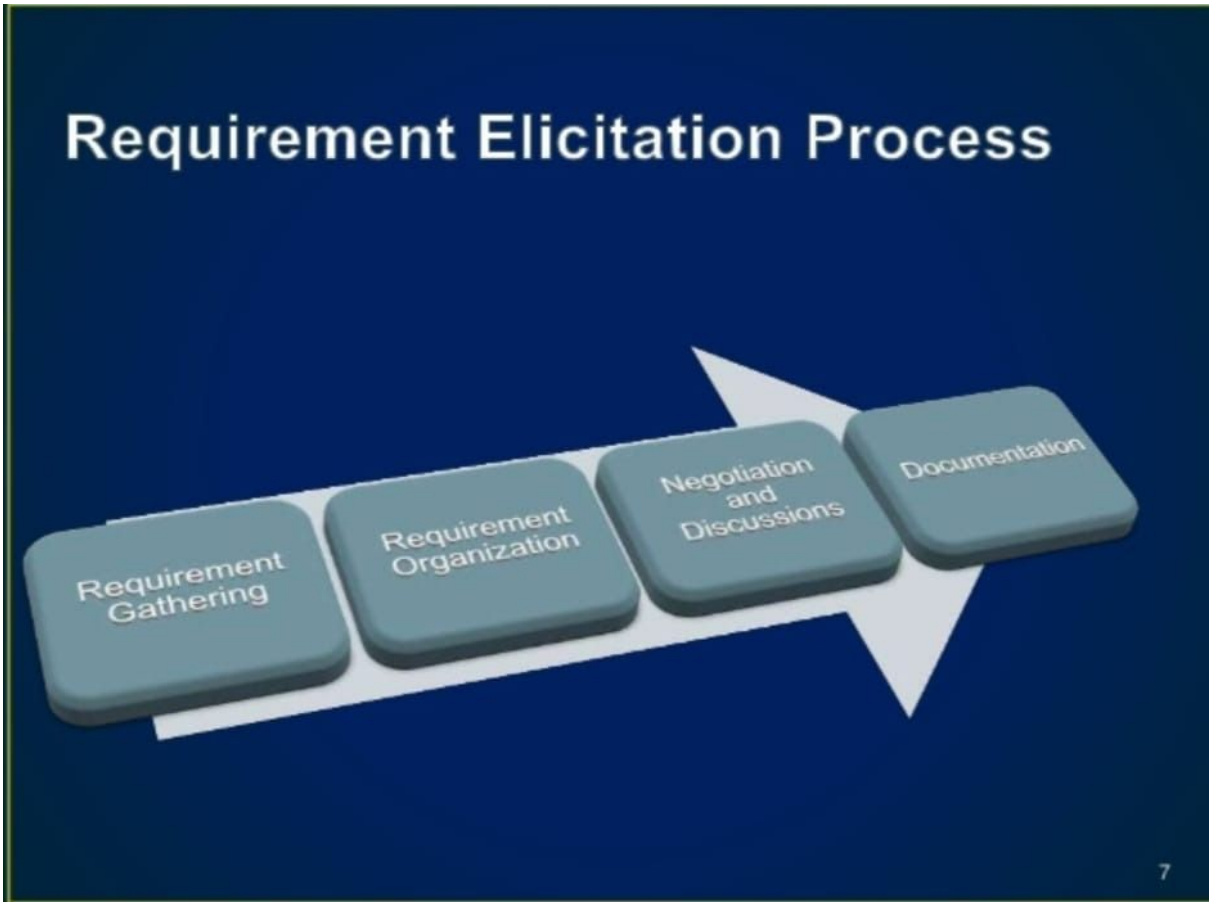
Epics [Major Functions]

Epic (#)	**Epic Description**
E1	Currency Payment Integration
E2	Registration
E3	Fast loading speed and wider reach
E4	Book suggestion system
E5	Book preview and user score

Requirements

Requirement Elicitation:

- If the feasibility report is positive towards undertaking the project then the next phase starts with gathering requirements from the user.
- Analysts and engineers communicate with the client and end-users to know their ideas on what the software should provide and which features they want the software to include.
- Sometimes known as Requirement gathering.



Elicitation Process:

- Requirement Gathering- The developers discuss with the client and end users and know their expectations from the software.
- Organizing Requirements - The developers prioritize and arrange the requirements in order of importance, urgency and convenience.
- Negotiation & discussion - If requirements are ambiguous or there are some conflicts in requirements of various stakeholders, if they are, it is then negotiated and discussed with stakeholders. Unrealistic requirements are compromised reasonably.
- Documentation - All formal & informal, functional and non-functional requirements are documented.

Requirement Elicitation Techniques:

1- Interviews

- Interviewers should be open-minded, willing to listen to stakeholders.
- They should prompt the interviewee with a question or a proposal.

2- Surveys

3- Questionnaires

4- Task analysis - Team of engineers and developers may analyze the operation for which the new system is required.

5- Brainstorming - An informal debate is held among various stakeholders and all their inputs are recorded for further requirements analysis.

6- Domain Analysis - Every software falls into some domain category. The expert people in the domain can help to analyze general and specific requirements.

7- Prototyping - is building a user interface without adding detailed functionality for the user to interpret the features of the intended software product. It helps give better ideas of requirements.

8- Observation - Team of experts visit the client's team itself draws some conclusions which aid to form requirements expected from the software.

Functional Requirements:

Requirement (#)	Requirement Specification	Department	Name of Business User	Status
E1FR1	The system must be able to add delete and view books we should be able to search book based on book name	Department of Media	Ms. Ankita Singh	Journalism
E1FR2	System must be able to enter issue information in the database. -System must be able to update number of books	Resort Management	Mr. Anil Verma	Resort Manager
E1FR3	System should be able to recommend popular books available for purchase	Technical Team, XYZ	XYZ Software Solutions and Consultancy.	SDE 1

Non-Functional Requirements:

Requirement (#)	Category of NFR	Requirement Specification	Department	Name of Business User	Status
NFR1	Performance	All pages should load within 3 seconds	Dept. Of Media	Mr. Alok Sharma	Editor in Chief
NFR2	Performance	Search should bring the results less than 7 seconds	Business Development	Dr. Vivek Bindra	Business Coach
NFR3	Availability	Application should be available for 24x7	Medical Consultancy	G.N.S Krishna Murthi	Medical Representative
NFR4	Accessibility	Should be easy to use for a 3rd party	Management	Jivan Anand	Restaurant Owner
NFR5	Scalability	Database should be large enough to support many books	Tourist	Paul Johnson	Traveller and Photographer

E1NFR1	Security	Should have security to ensure privacy of data	N/A	Mrs. Das	Housewife

System Requirements

Requirement (#)	Requirement Specification	Department	Name of Business User / Project Team Member	Status
IR1	Development Machine with 6 GB Ram and 4 Cores	Technical Team	Yuvraj Singh Chauhan	Team Lead
IR2	Code Repository	Technical Team	A Prithivi	Team Member, Cross Platform
IR3	AWS S3 Bucket	Technical Team	Muppuri Siva Charan	Team Member, Data Analytics
IR4	IDE – Visual Studio Code	Technical Team	All Members	Technical Team Members

Result:

Thus, the requirements are identified, collected and documented.

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	4
Title of Experiment	Prepare Project Plan based on scope, Find Job roles and responsibilities, Calculate Project effort based on resources
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	20/02/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Presentation	5	
2	Requirements document	5	
	Total	**10**	

Staff Signature with date

Aim

To Prepare Project Plan based on scope, Find Job roles and responsibilities, Calculate Project effort based on resources

Team Members:

Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Lead**
2	RA1911027010052	A Prithivi	**Member**
3	RA1911027010062	Muppuri Siva Charan	**Member**

Cost and Effort Estimation:

Activity	Description	Effort (in hours/per day or week)	Cost (in INR/per month)
Web Application Development	To create desktop level Web Application using Python, Flask and SQL	6 - 8	SQL dev-100K Frontend-43K Backend-100K
Research and Development	Evaluation of software technology trends and incorporating them with updates and patches	4	For Research - 20K For Rolling out patches/updates – 50K
Data Analytics	Administrator of Data, Database Management, Evaluating trends in data	10 With shifts	Data Analyst-100K Data Scientist-90K Database Manager 56K

Help & Support	Customer care	24 With shifts	Customer Care-70K to 80K

Licensing/ Trademarks/ Copyrighting	Database IDE Server Terms Trademarking Copyrighting	All time	25K (one time)
Marketing	Advertisements, Public Relations	8-10 On requirement	Marketing Manager– 68K Marketing Coordinator–50K Marketing Assistant–25K
Testers	To test the functionality of the software in expected and unexpected conditions	4	240K (one time)

Maintenance and Support Cost:

Category	Details	Qty	Cost per qty per annum	Cost per item
People	Network, DB Admin, Customer support, Developer	2	10 L	40 L

License	Database, server, Middleware, Governme nt License	3	10,000	30,000
Infrastructures	Server Storage and Network	1	10,000	20,000

Project Team Formation:

Name	Role	Responsibilities
Mr. Arvind	UI/UX Designer	Design overall visual user experience
Ms. Malvika	Frontend Developer	Develop user interface
Mr. Anoop	Backend Developer	Coding and Debugging, UI testing to optimize performance, maintaining database
Ms. Sangeetha	Project Lead	Design end-to-end architecture, provide training and support, team management, monitoring and controlling
Mr. Siddhart	Tester	Perform testing for various test cases, identifying flaws

Ms. Saraswathi	Quality Assurance Lead	Come up with questionnaires and surveys, random quality checks

Result:

Thus, the Project Plan was documented successfully.

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	**5**
Title of Experiment	Prepare Work Breakdown Structure, Timeline Chart and Project Risk Management Table
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	27/02/2020

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Presentation	5	
2	Requirements document	5	
	Total	**10**	

Staff Signature with date

Aim

To Prepare Work Breakdown Structure, Timeline Chart and Project Risk Management Table

Team Members:

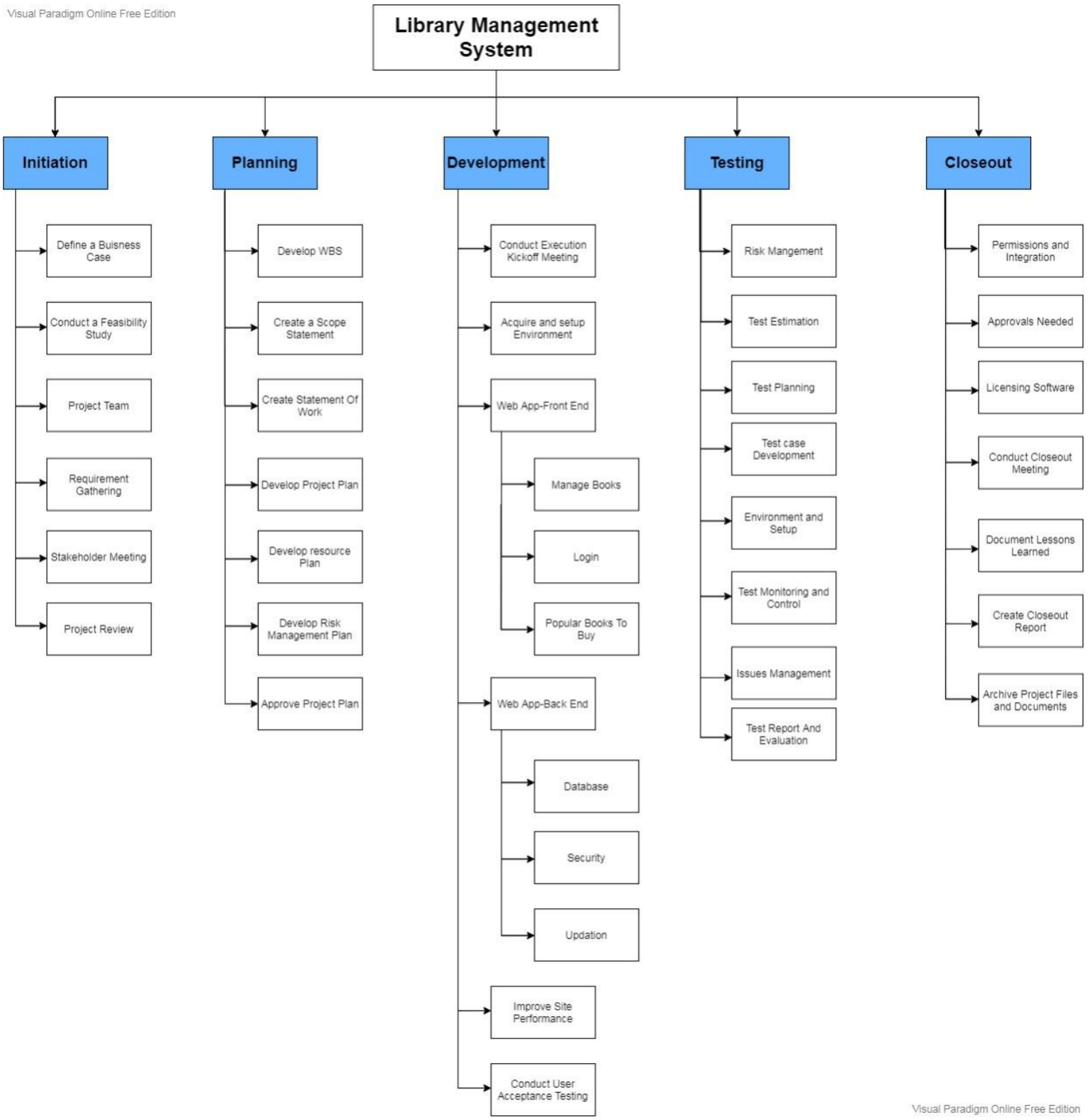
Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Member/Rep**
2	RA1911027010052	A Prithivi	**Member**
3	RA1911027010062	Muppuri Siva Charan	**Member**

WORK BREAKDOWN STRUCTURE:

The WBS is a view into the project that illustrates the work the project encompasses. The Project Manager and project team use the WBS to develop the project schedule, resource requirements, and costs.

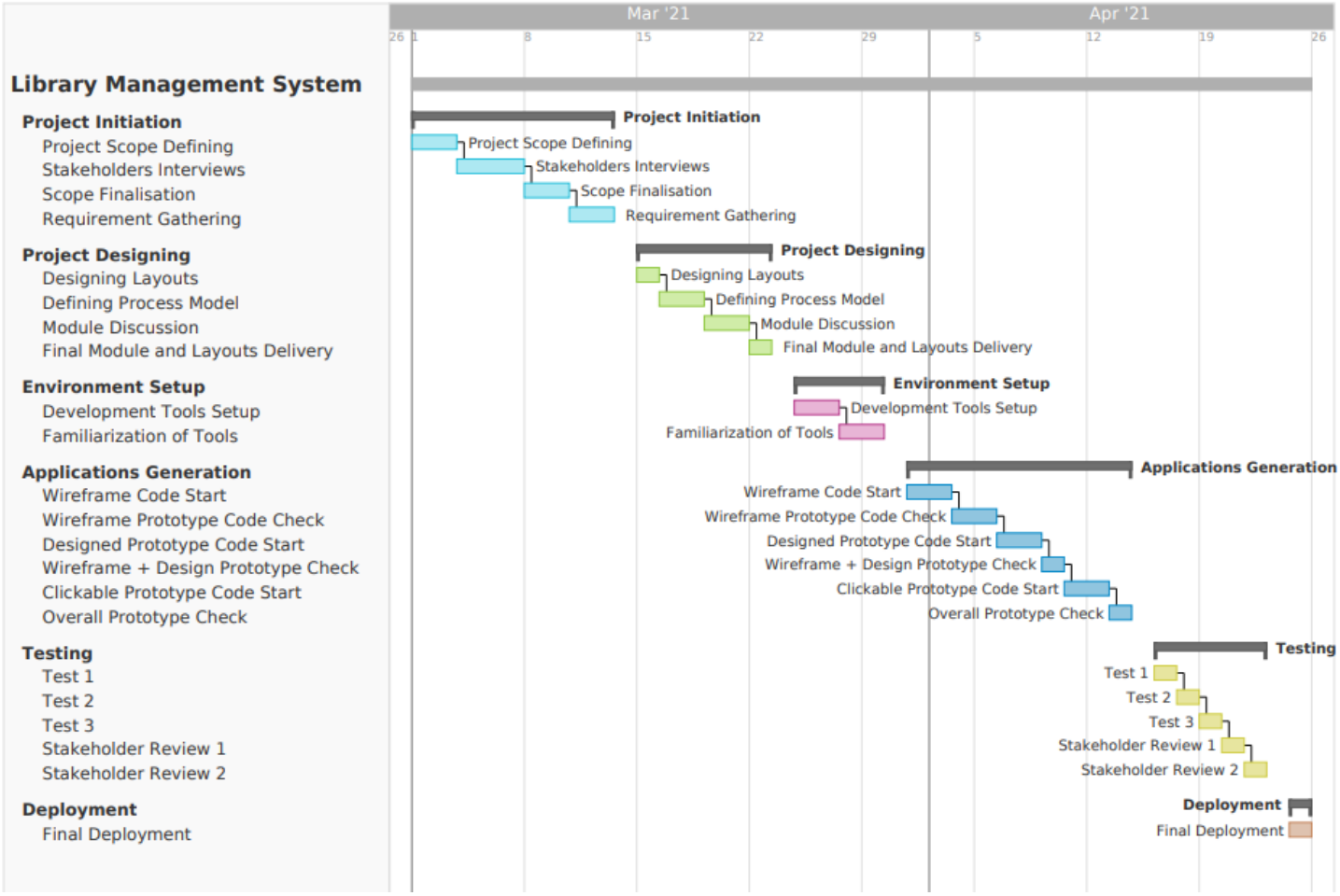
TREE STRUCTURE VIEW

The Tree Structure View is the most popular format for the WBS. It presents an easy to understand view into the WBS; however, it is also tricky to create without an application specifically designed for creating this organizational chart structure. The Tree Structure below was created using only Microsoft Word and the SmartArt graphics option under the insert menu.



WBS: TABULAR VIEW

1. Library Management System (Deliverable) scope
    1.1. Basic Desktop level Application Frame
        1.1.1. Entry Page
            1.1.1.1. Login Tab
            1.1.1.2. Signup Tab
            1.1.1.3. Terms and Conditions Hyperlink
            1.1.1.4. Basic Entry Level Support Hyperlink
        1.1.2. Home page
            1.1.2.1. Dashboard tab
            1.1.2.2. Help and Support tab
            1.1.2.3. Logout button
            1.1.2.4. Credentials tab
            1.1.2.5. About Us tab
    1.2. Supporting Project scope
        1.2.1. Project Management
        1.2.2. Security
        1.2.3. Software testing
        1.2.4. Documentation



Risk Table

S. No	Risk Summary	Risk Category	Probability	Impact	RMMM Plan
1	Deficiency of sufficient human resources due to unavailability	Budget risk	Medium probability	Slowing down of development process	More allocation of fund towards human resource and temporary hiring of freelancers
2	Technical difficulties like Data security and improper management of data	Technical Risk	Medium Probability	Threaten the quality of the software to be produced. Can be fatal up to the point of termination of the project	Prior emphasis on correct measures to be taken for data management and security. Also hiring of experienced staff for the same to avoid any hinderance in the future
3	Since with the short amount of time, the code made and presented might not live up to the stakeholder expectations or standards.	Technical risk	Low probability	Might put the project in technical debt. Also making the software more vulnerable to software crashing, bugs, glitches which may prove harmful in long term	Implementing User Acceptance Criteria to have stakeholders affirm the project is up to standard, regular code reviews, usage of Clear coding standards and guides, and extensive testing of the software,
4	Low stakeholder engagement. The stakeholder might	Management risk	Medium probability	Low stakeholder engagement is a significant risk to	Clear agreements with the

	not interact with the team at frequency required to maintain high productivity levels			**the project because slow responses from the customer can impede delivery timeframes.**	**customer or stakeholders around response times, particularly for any User Acceptance Testing and** **Effective selection of Delivery and project goals/** **priorities.**

Result:

Thus, the WBS, Timeline and Risk Management was documented successfully.

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	6
Title of Experiment	Prepare UML diagrams, System Architecture, Data Flow Diagram and ER diagram
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	20/02/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Presentation	5	
2	Requirements document	5	
	Total	**10**	

Staff Signature with date

Aim

To Prepare UML diagrams, System Architecture, Data Flow Diagram and ER diagram

Team Members:

Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Lead**
2	RA1911027010052	A Prithivi	**Member**
3	RA1911027010062	Muppuri Siva Charan	**Member**

LIBRARY MANAGEMENT SYSTEM

Architecture of library management system:

Library management system has 4 architecture

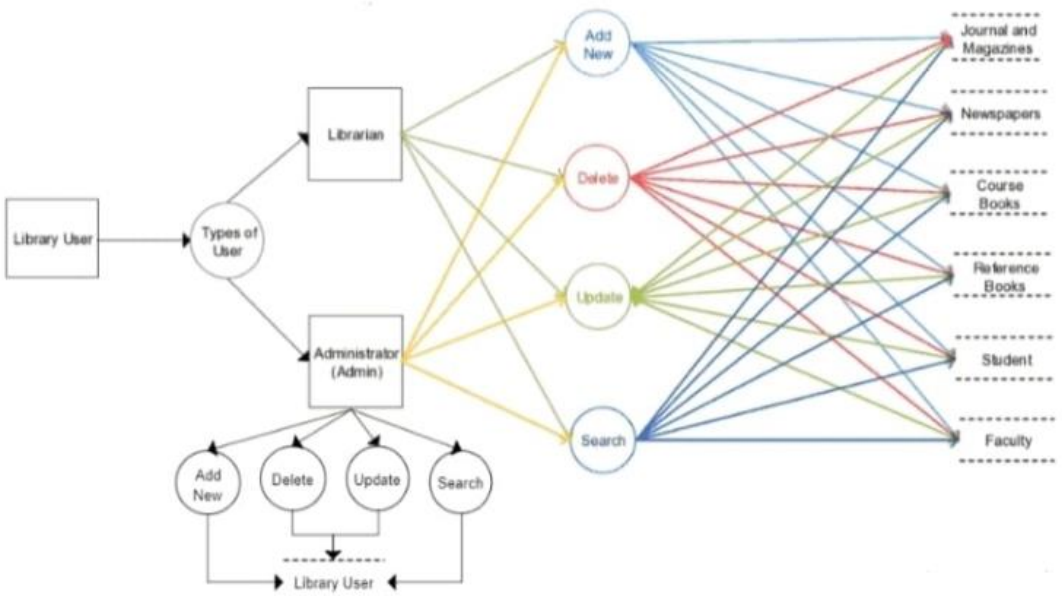
1.add or create user and book

2.delete user or book

3 update information

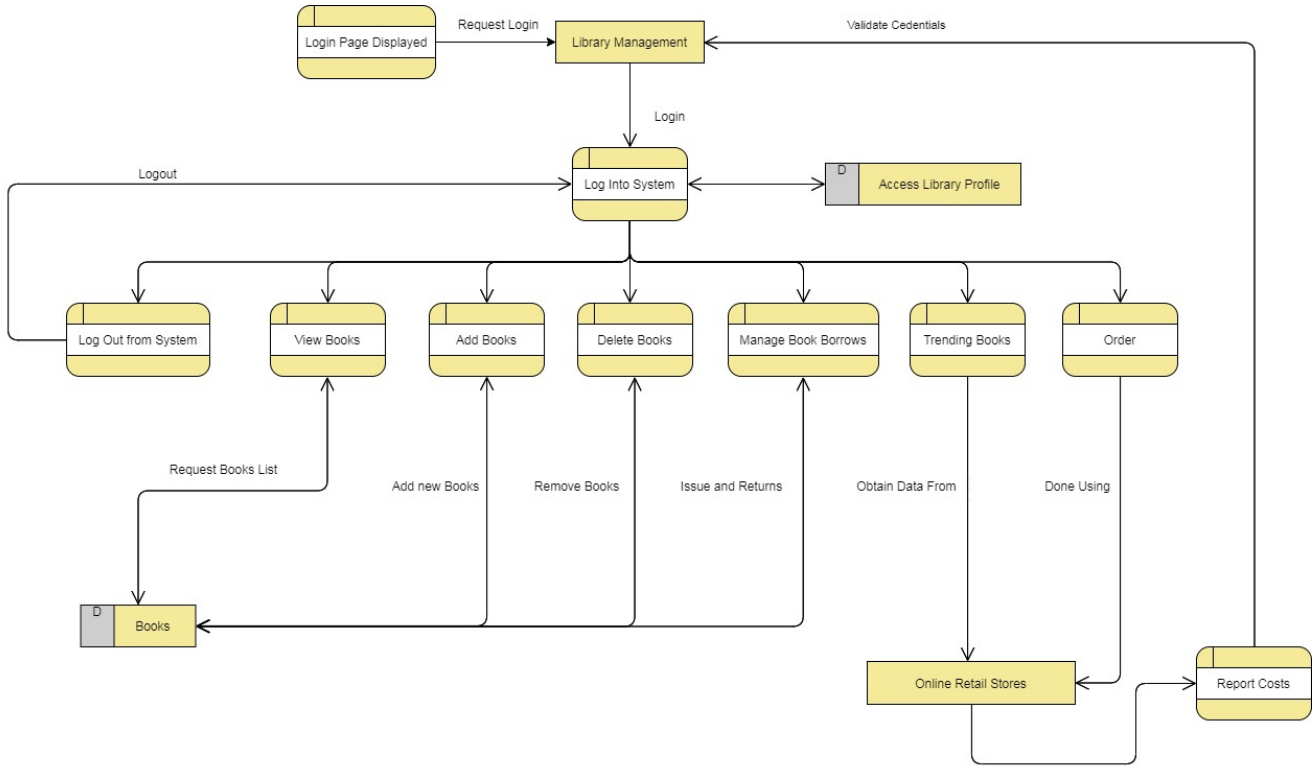
4.search book or user

Basic architecture of a library management system is given below:

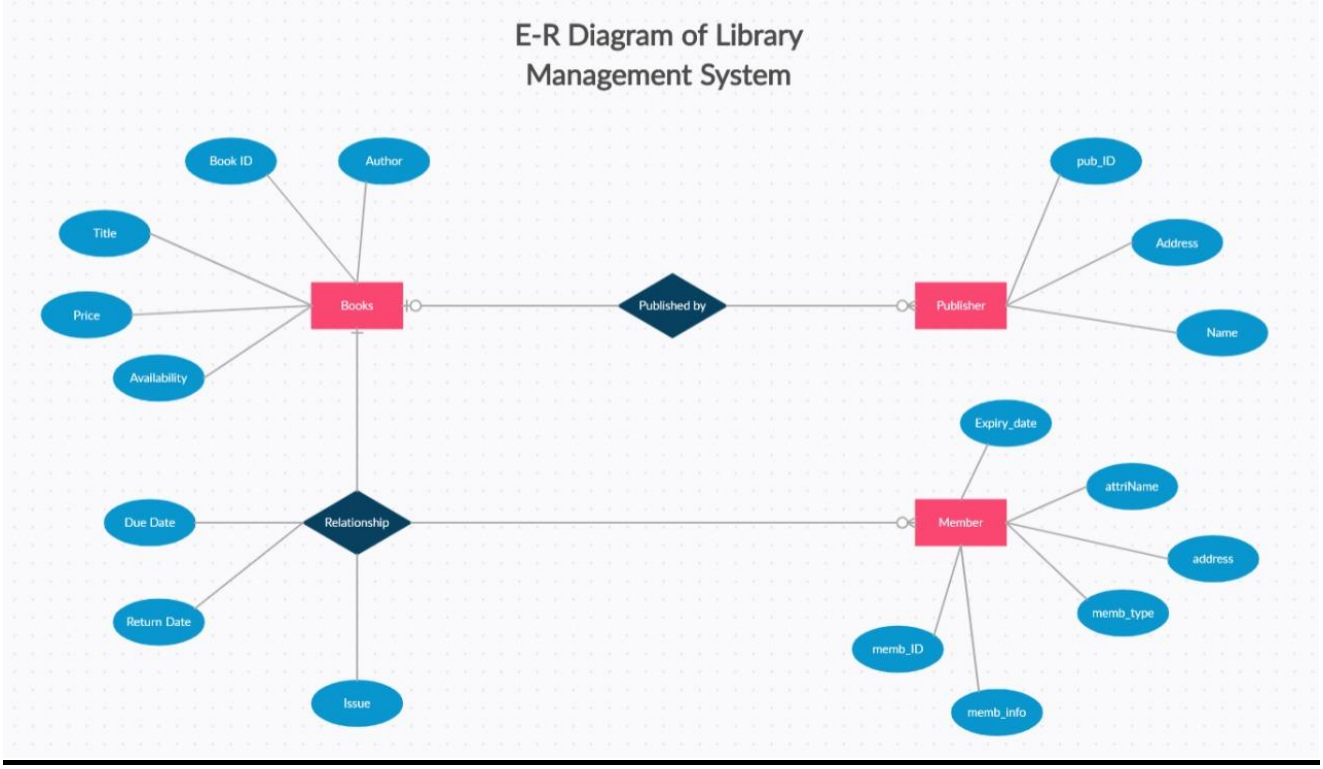


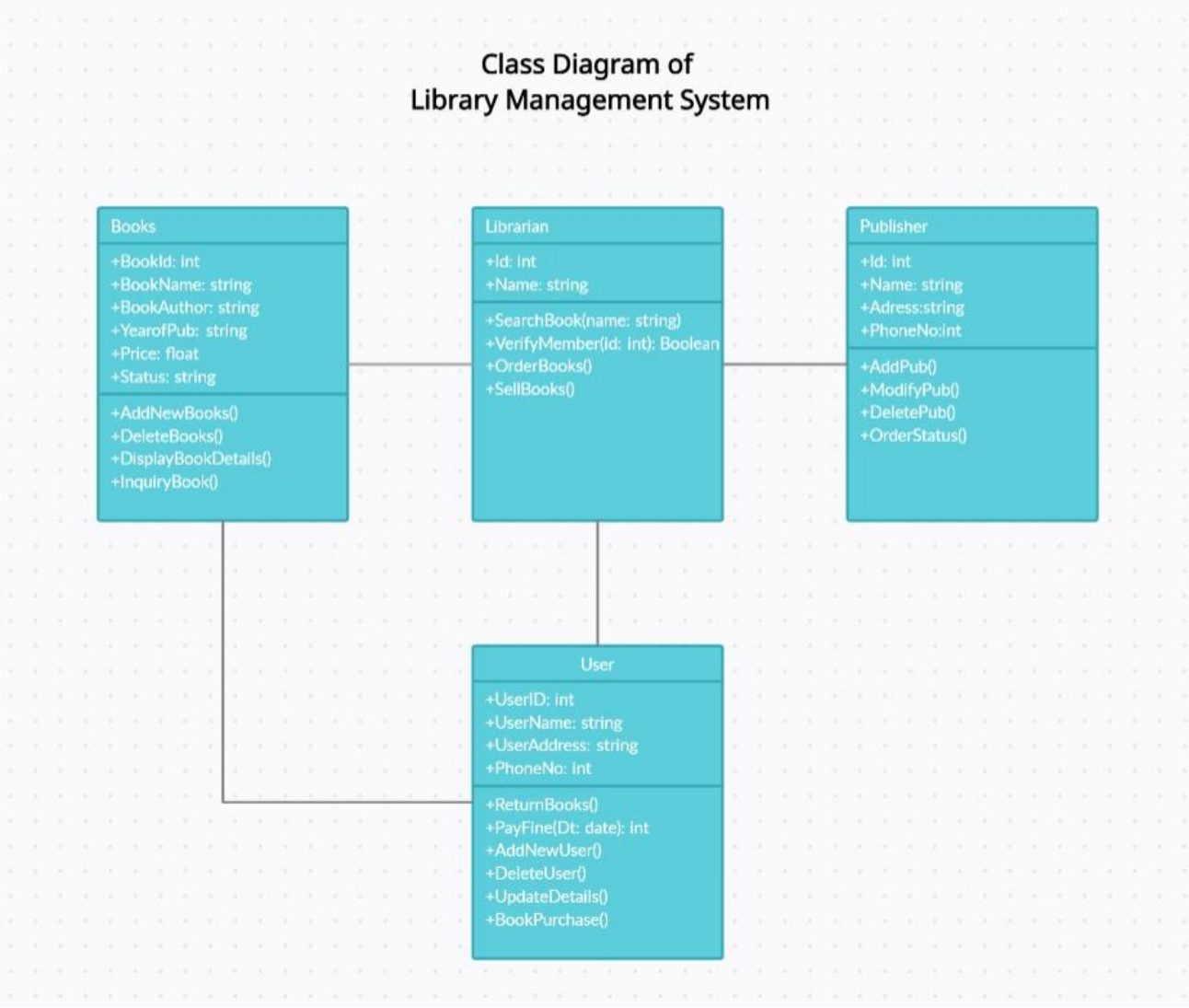
Data Flow Diagram:

1st level Data Flow Diagram of
Library Management System



UML diagrams:





Result:

Thus, the Project Plan was documented successfully.

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	7
Title of Experiment	Design State , Collaboration, Deployment Diagram, Sample Frontend Design (UI/UX)
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	17/03/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Presentation	5	
2	Requirements document	5	
	Total	**10**	

Staff Signature with date

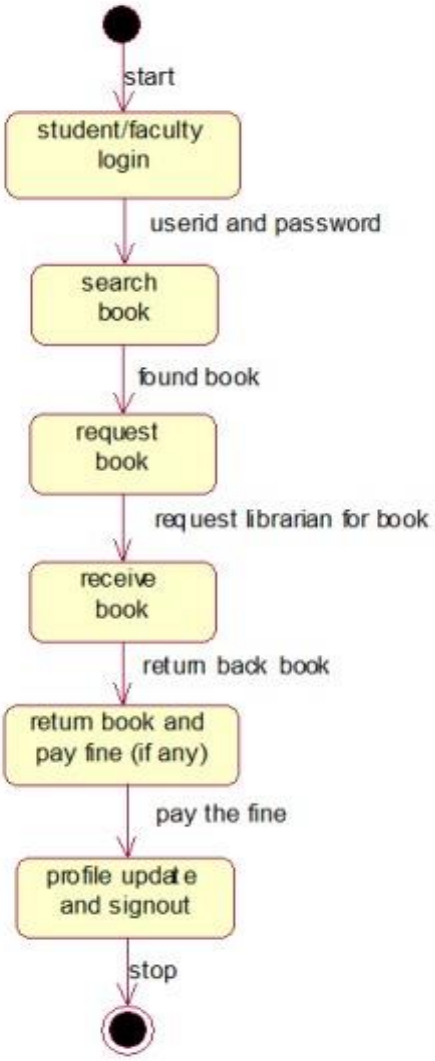
Aim

To Design State, Collaboration, Deployment Diagram, Sample Frontend Design (UI/UX) for the project.

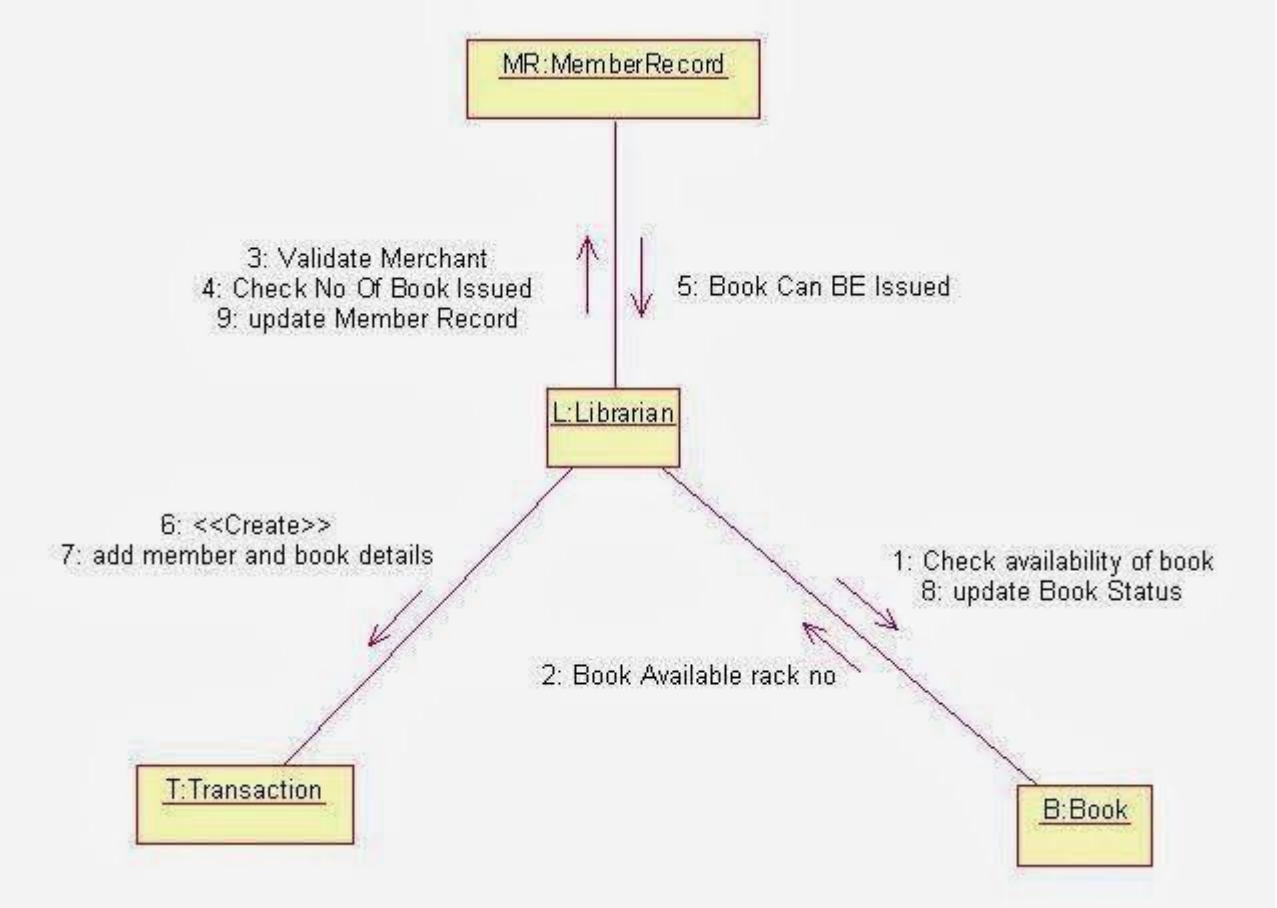
Team Members:

Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Lead**
2	RA1911027010052	A Prithivi	**Member**
3	RA1911027010062	Muppuri Siva Charan	**Member**

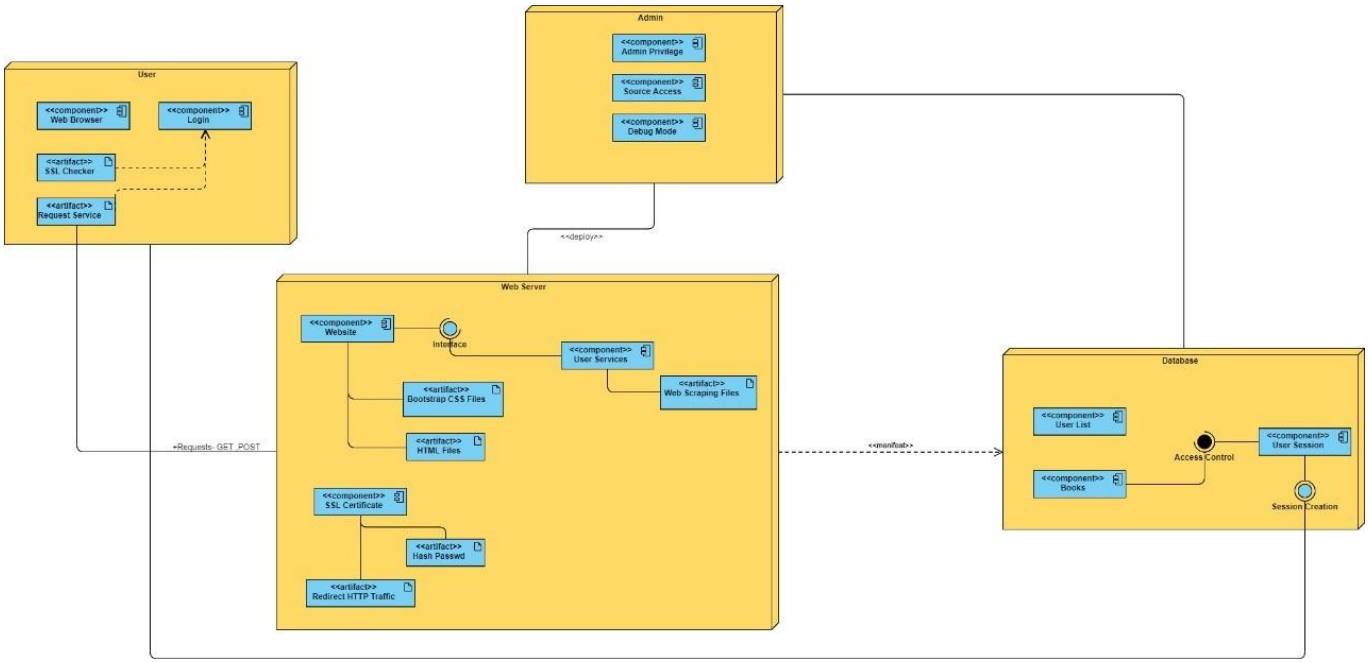
State Chart Diagram



Collaboration Diagram



Deployment Diagram



Result:

Thus, above mentioned designs of the system were documented successfully.

DEPT. Of Computer Science Engineering

SRM IST, Kattankulathur – 603 203

Course Code: 18CSC206J

Course Name: Software Engineering and Project Management

Experiment No	8
Title of Experiment	Module Description, Module Implementation
Name of the candidate	Yuvraj Singh Chauhan
Team Members	A Prithivi, Muppuri Siva Charan
Register Number	RA1911027010058
Date of Experiment	28/03/2021

Mark Split Up

S.No	Description	Maximum Mark	Mark Obtained
1	Implementation of module 1	5	
2	Output	5	
	Total	**10**	

Staff Signature with date

Aim

To describe modules and implement Module1

Team Members:

Sl No	Register No	Name	Role
1	RA1911027010058	Yuvraj Singh Chauhan	**Lead**
2	RA1911027010052	A Prithivi	**Member**
3	RA1911027010062	Muppuri Siva Charan	**Member**

Software Used

Python, HTML, SQL, CSS and Flask

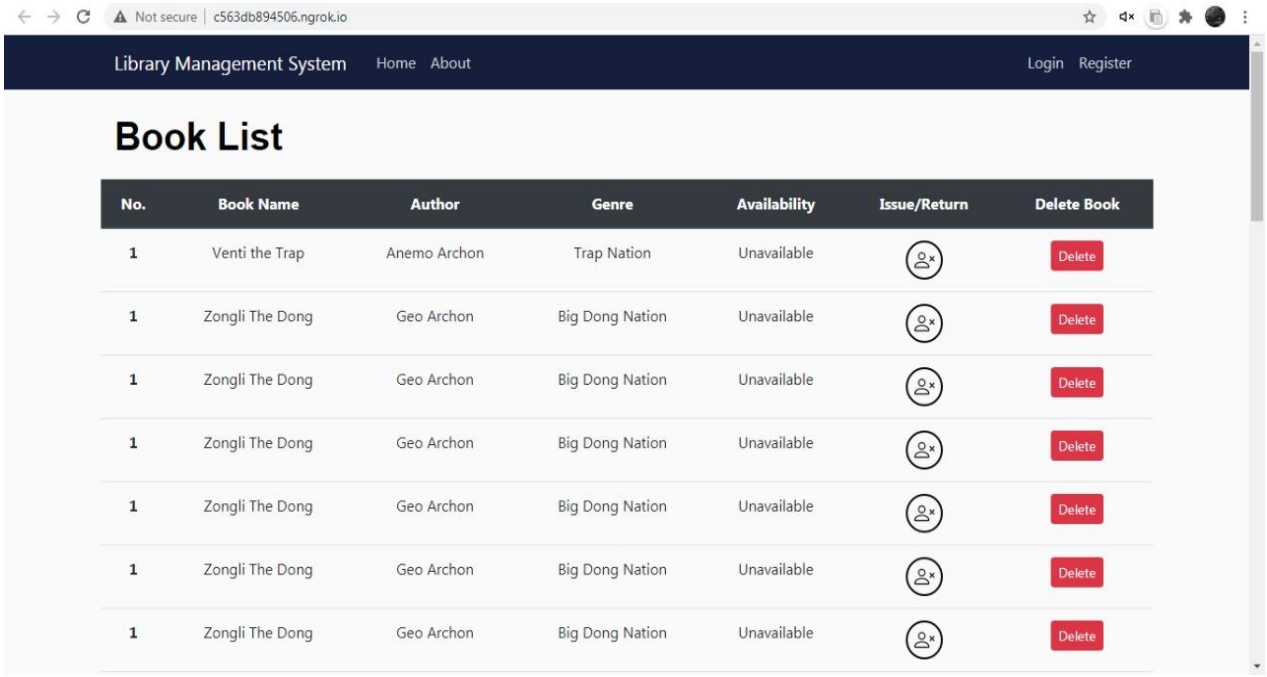
Code for module 1

```
{% extends "layout.html" %}
{% block content %}
<h2>Book List</h2>
<div class="row">
  <table class="table  table-fit table-condensed table-responsive-md" style="width:100%">
   <thead class="thead-dark">
     <tr>
       <th scope="col">No.</th>
       <th scope="col">Book Name</th>
       <th scope="col">Author</th>
       <th scope="col">Genre</th>
       <th scope="col">Availability</th>
       <th scope="col">Issue/Return</th>
       <th scope="col">Delete Book</th>
     </tr>
   </thead>
   <tbody>
     {% for book in books %}
     <tr>
      <th scope="row">1</th>
      <td>{{book.title}}</td>
      <td>{{book.author}}</td>
      <td>{{book.genre}}</td>
```

```
{% if (books['available']=="yes") %}
<td class="text-center">
                                                    <div class="widget-indi-book-
category bg-soft-base">
                <i class="indicator bg-base"></i>
                 <span>Available</span>
              </div>
</td>
<td>
  <button type="button" class="btn btn-circle btn-small">
     <svg xmlns="http://www.w3.org/2000/svg" width="16" height="16"
fill="currentColor" class="bi bi-person-plus" viewBox="0 0 16 16">
  <path d="M6 8a3 3 0 1 0 0-6 3 3 0 0 0 0 6zm2-3a2 2 0 1 1-4 0 2 2 0 0 1 4 0zm4 8c0 1-1 1-1
1H1s-1 0-1-1 1-4 6-4 6 3 6 4zm-1-.004c-.001-.246-.154-.986-.832-1.664C9.516 10.68 8.289
10 6 10c-2.29 0-3.516.68-4.168 1.332-.678.678-.83 1.418-.832 1.664h10z"/>
  <path fill-rule="evenodd" d="M13.5 5a.5.5 0 0 1 .5.5V7h1.5a.5.5 0 0 1 0 1H14v1.5a.5.5 0 0
1-1 0V8h-1.5a.5.5 0 0 1 0-1H13V5.5a.5.5 0 0 1 .5-.5z"/>
</svg>
      </button>
</td>
{% else %}
<td class="text-center">
                                                    <div class="widget-indi-book-
category bg-soft-base">
                <i class="indicator bg-danger"></i>
                 <span>Unavailable</span>
              </div>
</td>
<td>
  <button type="button" class="btn btn-circle btn-small">
     <svg xmlns="http://www.w3.org/2000/svg" width="22" height="22"
fill="currentColor" class="bi bi-person-x" viewBox="0 0 16 16">
```

```
  <path d="M6 8a3 3 0 1 0 0-6 3 3 0 0 0 0 6zm2-3a2 2 0 1 1-4 0 2 2 0 0 1 4 0zm4 8c0 1-1 1-1
1H1s-1 0-1-1 1-4 6-4 6 3 6 4zm-1-.004c-.001-.246-.154-.986-.832-1.664C9.516 10.68 8.289
10 6 10c-2.29 0-3.516.68-4.168 1.332-.678.678-.83 1.418-.832 1.664h10z"/>
  <path fill-rule="evenodd" d="M12.146 5.146a.5.5 0 0 1 .708 0L14 6.293l1.146-1.147a.5.5 0
0 1 .708.708L14.707 7l1.147 1.146a.5.5 0 0 1-.708.708L14 7.707l-1.146 1.147a.5.5 0 0 1-
.708-.708L13.293 7l-1.147-1.146a.5.5 0 0 1 0-.708z"/>
</svg>
            </button>
      </td>
      {% endif %}
      <td>
        <form action="#" method="POST">
          <input class="btn btn-danger btn-sm" type="submit" value="Delete">
        </form>
      </td>
     </tr>
     {% endfor %}
   </tbody>
  </table>
</div>
{% endblock content %}
```

User Interface Design



Module 1 Description

This Module is used to manage the list of books that have been stored in the database

It displays a tabular view of all the books owned by the library ie the User

It also Gives the option to Delete A certain book from the database

A search bar may be added for additional user convenience in the same page

The module to Issue and return books has also been integrated with the current one which allows the user to issue and return books. It also tells us about the availability of the books in their current status and enables us to distinguish between them.

The functionality to add books is better left as another module due to its dependencies and requirements

Further background design and QOL features may also be added to stylize the page if time permits

Result:

Thus, modules are described, Module 1 was implemented and documented successfully.

TEST CASE TEMPLATE

Yuvraj Singh Chauhan (RA1911027010058)
A Prithivi (RA1911027010052)
Muppuri Siva Charan (RA1911027010062)

Register:-

S. No	Test Cas eID	Test Objective	Test Condition	Steps	Sample Input	Expected Output	Actual Output	Test Status
1	LS001	Email without @ (invalid email)	To check Email id	1.Enter valid Email id	mc6709srmist.edu.in	error	error	reject
2	LS002	invalid password(with space)	To check password	1. Enter valid password	9515162 115	error	error	reject
3	LS003	Proper Email id and password	To check Email id and password	1.Enter valid Email id 2. Enter valid password	mc6709@srmist.edu.in 9515162115	Successful	Successful	accept
4	LS004	Already registered user name	To check User name is registered before or not	1.Enter valid User name	Siva Charan	error	error	reject
5	LS005	Different passwords	To check Password	1. Enter valid password	9515162115	error	error	reject
6	LS006	Same passwords	To check Password	1. Enter valid password	9515162115	Successful	Successful	accept

login:-

S. No	Test Case ID	Test Objective	Test Condition	Steps	Sample Input	Expected Output	Actual Output	Test Status
1	HM001	Non Registered Email	To check Email id	1.Enter valid Email id	mc6709@srmist.edu.in	error	error	reject
2	HM002	Wrong password	To check password	1. Enter valid password	9515162 115	error	error	reject
3	HM003	Proper Email id and password	To check Email id and password	1.Enter valid Email id 2. Enter valid password	mc6709@srmist.edu.in 9515162115	Successful	Successful	accept

Forgot Password:-

S. No	Test Case ID	Test Objective	Test Condition	Steps	Sample Input	Expected Output	Actual Output	Test Status
1	HM004	Non Registered Email	To check Email id	1.Enter valid Email id	mc6709@srmist.edu.in	error	error	reject
2	HM005	valid Email id	To check Email id	1.Enter valid Email id	mc6709@srmist.edu.in	Successful	Successful	accept

Reset password:-

S. No	Test Case ID	Test Objective	Test Condition	Steps	Sample Input	Expected Output	Actual Output	Test Status
1	HM006	Use link sent to Email after 30 mins	Link is working within 30 min of generation	Click the link sent to email After 30 mins		error	error	reject
2	HM007	Use link sent to Email within 30 mins	Link is working within 30 min of generation	Click the link sent to email id Within 30 mins		Successful	Successful	accept

Add/delete book:-

S. No	Test CaseID	Test Objective	Test Condition	Steps	Sample Input	Expected Output	Actual Output	Test Status
1	DSB001	Use the name of the magazine	To check Name of the magazine	1.Enter valid Name of magazine	Bone	Successful	Successful	accept
2	DSB002	Access book without logging in	To access book without logging in	1. access book without logging in	Bone	Successful	Successful	accept
3	DSB003	delete book without logging in	To delete book without logging in	1. delete book without logging in	Bone	error	error	reject

4	DSB004	Enter invalid info in book name	To check invalid info in book name	1. check valid info in book name	Bne	error	error	reject
5	DSB005	Issue books without logging in	To Issue books without logging in	1. To Issue books without logging in	Bone	error	error	reject
6	DSB006	Return books without logging in	To Return books without logging in	1. Return books without logging in	Bone	Successful	Successful	accept

Account:-

S. No	Test Case ID	Test Objective	Test Condition	Steps	Sample Input	Expected Output	Actual Output	Test Status
1	DSB007	Update to already registered user name	TO Update already registered user name	1. Update already registered user name		error	error	reject
2	DSB008	Change profile pic from local files in comp	TO Change profile pic from local files in comp	1. Change profile pic from local files in comp		Successful	Successful	accept
2	DSB009	Use someone else profile pic	To Use someone else profile pic	1. Use someone else profile pic		Successful	Successful	accept