Experiment No.1

Problem Statement:

Define the scope of the project.Identify the team members with their expertise. Construct the responsibility matrix of the project.

Solution:

Scope:This projects deals with the development of the library management system.
The scope of Online Library Management System includes:

Create distinct product users based on their roles and permissions.

Authenticate users at their login.

Provide the list of books the users can borrow.

Facility to reserve books that are available.

A status page for all users to view books reserved by them.

Facility to cancel the reservation for a book made earlier.

A status page for all users to view books borrowed by them, their individual due dates and their individual penalties if any.

An interface to view and edit the own profile.

Provide method for adjusting account settings.

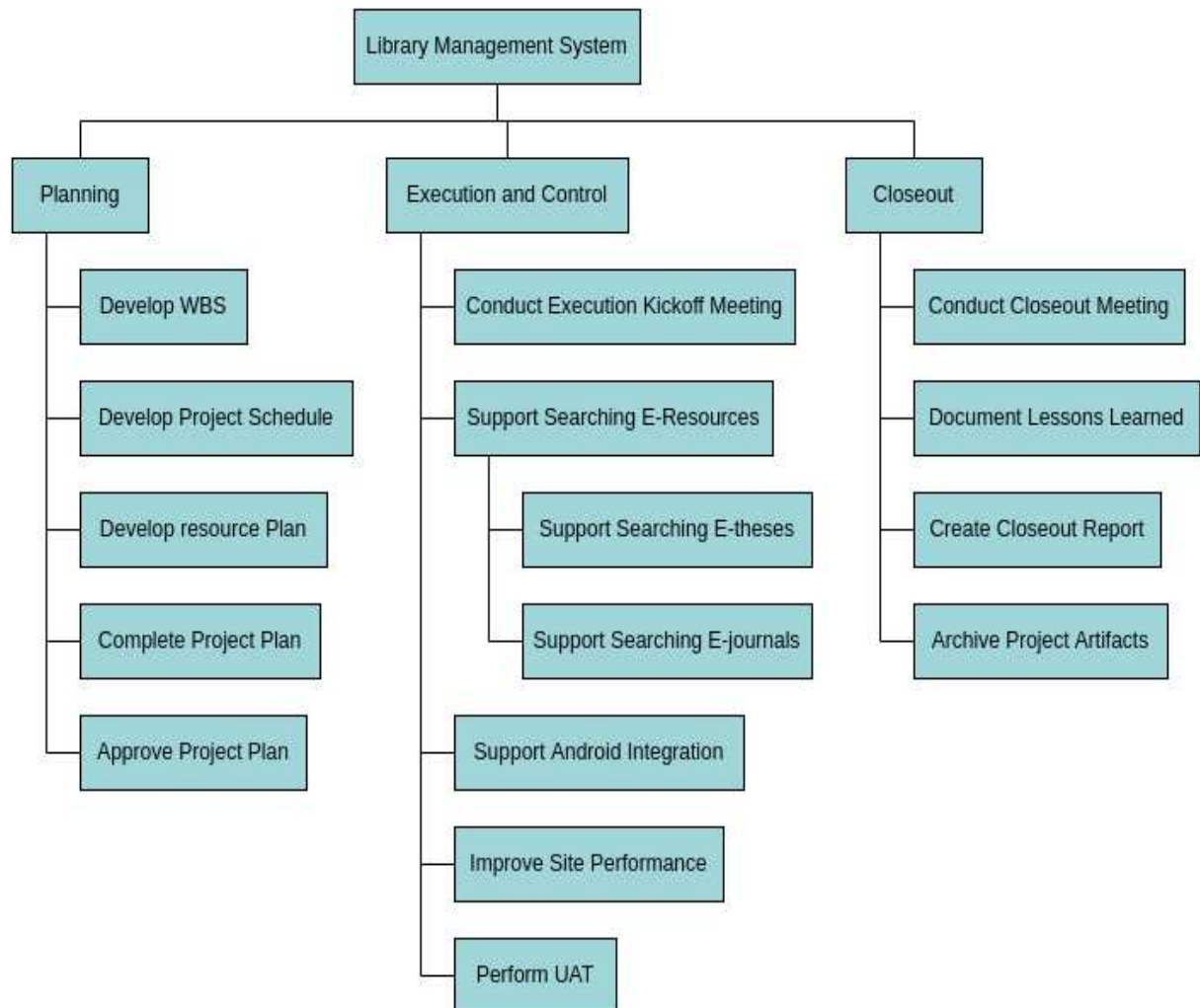| Sl.No	Team Member	Expertise
1	Ram Prakash Yadav	Backend Developer
2	Suraj Sharma	Frontend Developer
3	Ravi Verma	Testing and Validation
4	Dipika Verma	GUI Developer

Responsibility Assignment Matrix

	Ram Prakash Yadav	Suraj Sharma	Ravi Verma	Dipika Verma
Requirement Analysis	A	C	I	R
Database Schema Devlopment	R	A	C	A
Webpage Development	C	R	A	C
Testing and Validation	I	I	R	I

Experiment No.2

Problem Statement:
    Draw the work breakdown structure of the project's requirement.

Solution:

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                        Library Management System

    Planning              Execution and Control            Closeout

   Develop WBS           Conduct Execution Kickoff     Conduct Closeout Meeting
                                Meeting

   Develop Project        Support Searching            Document Lessons Learned
   Schedule               E-Resources

   Develop resource           Support Searching        Create Closeout Report
   Plan                       E-theses

   Complete Project           Support Searching        Archive Project Artifacts
   Plan                       E-journals

   Approve Project       Support Android Integration
   Plan

                         Improve Site Performance

                         Perform UAT
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Experiment No.3

Problem Statement:

Identify the task associated in the project. Define their deliverables and deadlines.
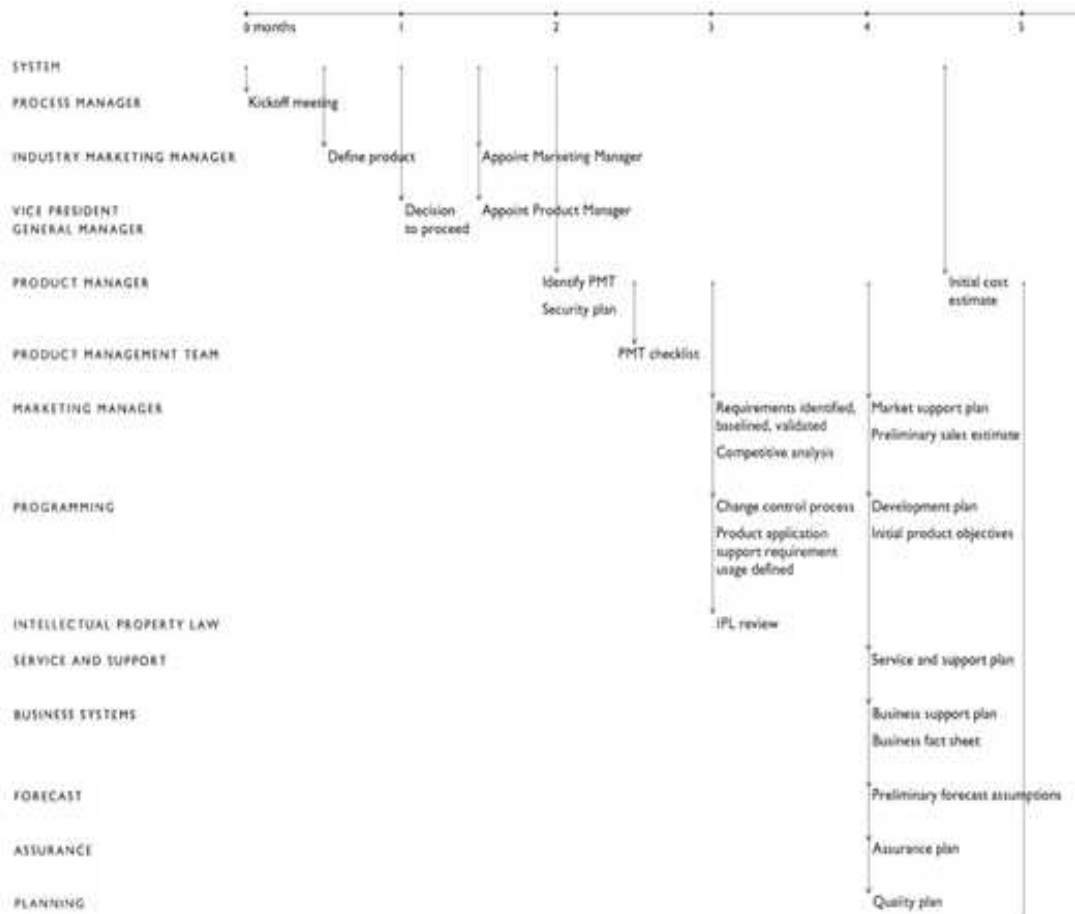
Solution:

Sl.No	List of Deliverables	Deadline
1	Develop Work breakdown structure	31/01/2023
2	Develop schedule of the project	8/2/2023
3	Generate front end of the sytems	28/2/2023
4	Generate searching E-Resource facility	8/3/2023
5	Create database of the project	15/3/2023
6	System testing plan	30/3/2023
7	UAT Plan	15/4/2023

Experiment No.4

Problem Statement:

Draw the Gantt chart of the project.

Solution:

Experiment No.5

Problem Statement:

Identify the software requirement of the project. Give presentation on software requirement.
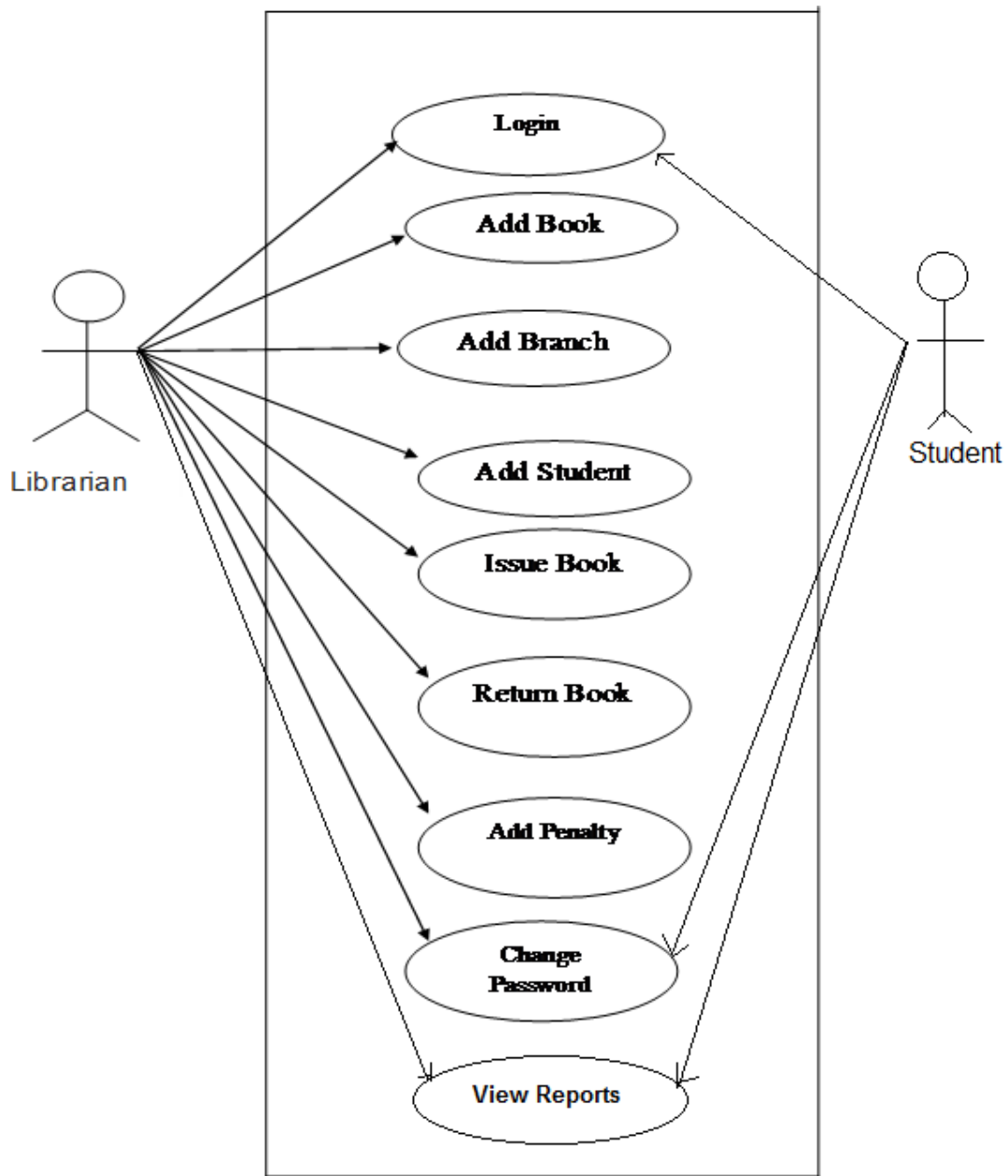
Solution:

- The LMS should store all information about librarians and patrons, their access keys, priority and etc.

- The LMS allow searching items by author, title or keywords

- The LMS should support 500 patrons and 1000 requests/min simultaneously.

- The LMS should allow librarians to add, delete and modify items in database, and check availability of the items.

- The LMS should generate request's reports for librarians every day, on base of which librarians could make decisions about acquiring or retirement the item

- The LMS should create notification and send to patrons by e-mail automatically after item's overdue

- The LMS should provide to search, request and renew items either from the library computers (LMS application) or from outside the library through College site(web-based) though the Internet.

- The LMS should provide access to previous Access-based database, online databases

Experiment No.6

Problem Statement:

Draw the use case diagram of your project.

Solution:
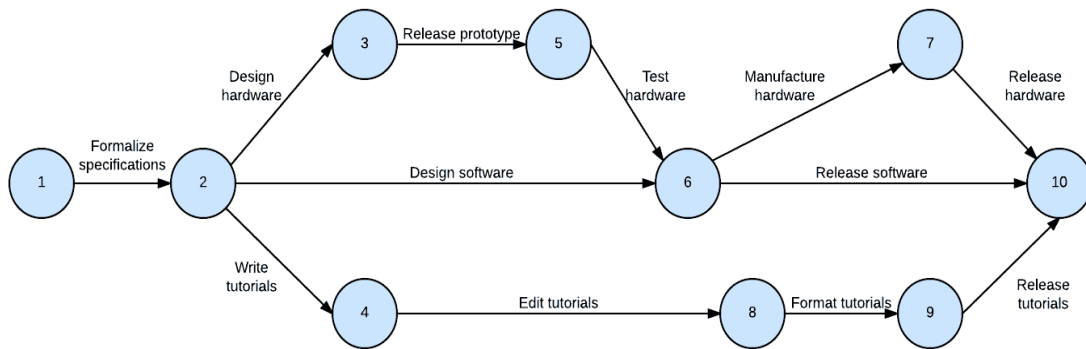
Experiment No.7

Problem Statement:

Using Project Planning Activities draw the PERT for the project.
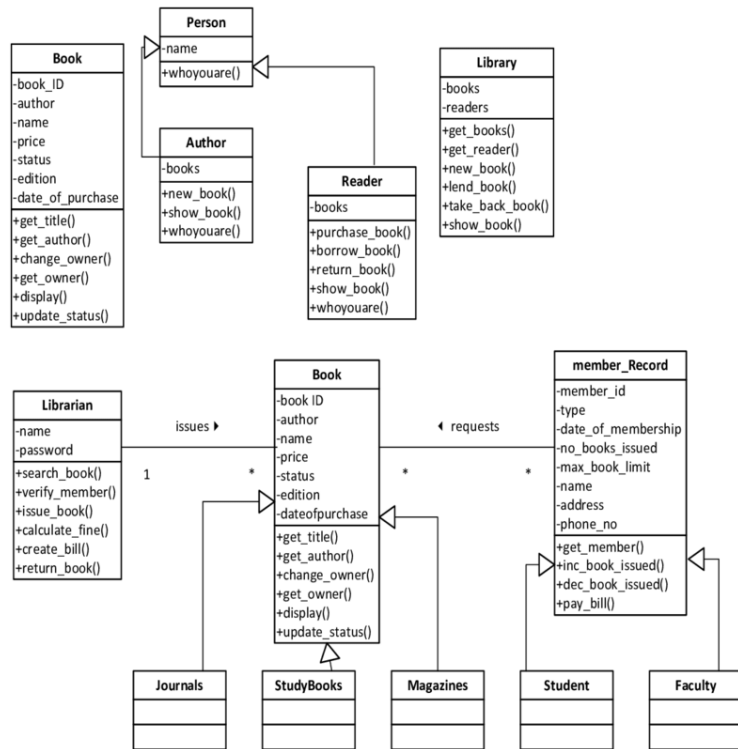
Solution:

Experiment No.8

Problem Statement:
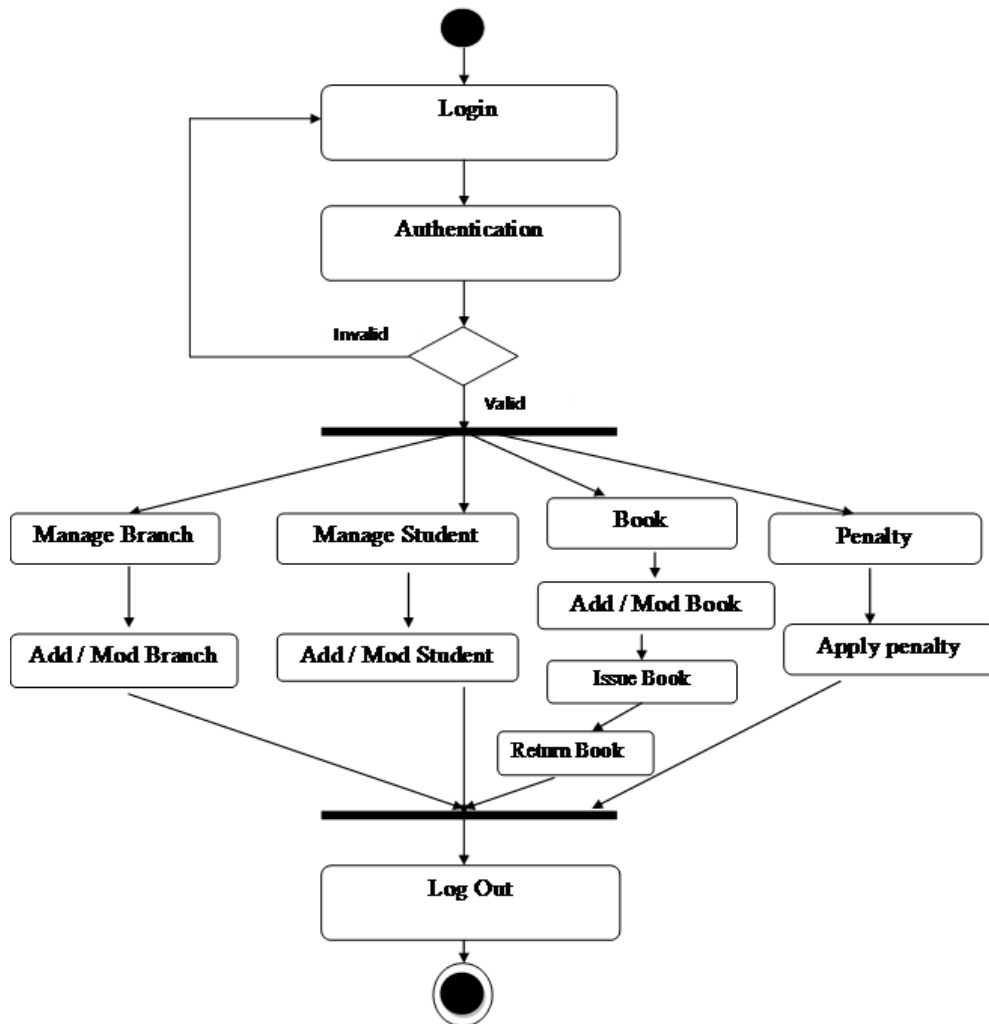**Implement class diagram of the project.**

Solution:

Experiment No.9

Problem Statement:

Implement activity diagram of the project.

Solution:

Experiment No.10

Problem Statement:

Draw the test case for your project and write the test plan.
Solution:

Test Case/Scripts:

Test Case	Title	Description	Expected Result	Actual Result
1	Admin Login	To Access into the system Admin must Login First.	If Username and Password is correct then Admin will be Login.	Successfully Login.
2	Edit Users and Books details	After inserting data into the system then admin can remove and modify the users and books.	Can change the inserted information.	Editing the Data from the system.
3	Search Users and Books details	Admin will find books and users by the given id.	Searching the information.	Find out Books and Users.
4	View Users and Books Details	Admin can view and modify the information	Getting all the information of users and books.	View the information of users and books.
5	Delete Users and Books Details	Admin can delete the users if they are out of contact and books which is old.	Remove all the unwanted users and books.	Successfully Removed the information which is stored in the database.