Chapter 1. Introduction or Background of Industry

Introduction:

- In colleges, students often have to do big projects in their final year. These projects are important because they show what students have learned and how well they can solve real-world problems.
- But managing these projects can be tricky. Colleges have to make sure students have the right resources, like mentor to guide groups. They also need to keep everything organized and make sure projects are going well. They need efficient systems to manage projects and meet high standards.
- This is where the Project Management System for College comes in. It's like a special computer program designed for colleges. It helps colleges manage projects better by making things easier for students, teachers, and administrators.
- The system is built to address the challenges colleges face in managing projects. It aims to improve how projects are planned, executed, and assessed. It also aligns with the goals of colleges to provide a great education and prepare students for the future.
- A Project Management System for college is like a helpful guide for students and faculty working on those important final project, it’s a tool that keeps everything organized, from planning to finish the project. Think of it as a friendly assistant that makes sure everyone knows what to do, when to do it. This system makes whole process smoother, so students can show off their best work, and mentors can guide them more effectively.

Scope:

The scope of the Project Management System for College encompasses various aspects that aim to enhance the management of final year projects within colleges. It focuses on providing solutions to common challenges and improving the overall project management experience for students, faculty, and administrators. It encompasses project initiation, project execution and project monitoring. This system will integrate with database to manage data integrate by system.

Chapter 2 Literature Survey

2.1 Study of existing system / Review of research paper

To build an effective Project Management System for College, it is crucial to first understand the current state of project management in educational institutions and to review existing research papers that shed light on best practices and challenges within the education sector.

Our examination of existing project management practices in colleges has revealed several common challenges. Many colleges still rely on manual and paper-based processes for project initiation, tracking, and assessment. This outdated approach often leads to inefficiencies and a lack of transparency. Allocating resources, such as faculty advisors, task, also track project status according weekly action plan, it can be a complex and time-consuming task in the absence of dedicated systems.Moreover, project-related data is often scattered across different systems and documents, making it difficult to manage.

We've taken a closer look at how colleges currently manage projects and what researchers have discovered about it. Here's what we've found:

- Researchers tell us that it's really important for students, teachers, and college staff to work together. When they collaborate and support each other, projects turn out better.
- They also suggest using technology to make managing projects easier.
- Another important point is to be open and clear about how projects are going. When everyone can see the progress, it helps a lot.
- Research also shows that when projects are managed well, students learn important skills. So, it's not just about finishing the project; it's also about what students learn along the way.

By looking at how things are done now and what researchers have found, we're figuring out exactly how our Project Management System for College can make everything better and simpler for everyone involved.

2.2 Limitations of existing system / Problems discussed in research papers

The current project management process within colleges are lack efficiency and organization leading to challenges in coordinating and monitoring academic project.

2.3 Problem Identification / Need of a system

- In final year of course, the students need to develop the capstone project using technologies they learn in overall course. So that groups of students work on various project whole year.Following difficulties they faced during project development:
    i. Difficulties to maintain project related files, report until the end of the submission.
    ii. Difficulties to understand and work on task weekly assigned them.
    iii. Difficulties to hand over all records, task, reports to team members.
- The all group work on project have assigned mentor to guide them whole year in project development. So guide also faced difficulties during project development
    i. Manage each groups status by assigning task to them
    ii. Difficulties to manage records of weekly status of each groups until the end of submission to evaluation
    iii. Difficulties to schedule groups in week to meet and guide them properly.

2.4 Problem definition

We developing **WEBAPPLICATION** to streamline project planning, execution and monitoring while enhance collaboration among faculty and students in college during project development.

Chapter 3 Specification

3.1 User Requirement:

There are three user roles for the system: Admin, Mentor, and Group.

i. Requirement of Admin:

- Admin able to see the list of groups having their project title.
- Admin can allow to assign mentor to groups.
- Admin able to see groups under particular mentor.
- Admin can able to define weekly timeline or action planned.
- Admin shall be able to see progress of every group according activity planned.
- Admin able to manage documents regarding project managements.
- Admin shall able to send notification to each mentor and groups regarding schedules.

ii. Requirements of Mentors:

- Mentor shall be able login with their unique username and password.
- Mentor shall be able to see the group list under guidance of them.
- Mentor shall be allow to assign task to particular group.
- Mentor shall be have method to remark the task.
- Mentor shall be allow to view the previously assign task with remark.
- Mentor shall be able to view timeline defined by admin.
- Mentor shall be allow to mark weekly activity in timeline such as completed, not completed for every group.
- Mentor shall be able to track the progress of each group.
- Mentor shall be able to manage their documents.
- Mentor shall be able to share document to group guide they.
- Mentor shall be able to see notification send by admin.
- Mentor shall be able to notify groups regarding important schedules.

iii. Requirements of Group:

- The group of student shall able to login into system with their group username and password.
- The group should able to view their project details.
- The group shall allow to submit task given by their particular mentor.
- The group shall be able to submit task in descriptively such as by sharing file.
- The group shall be able to see the remark given by mentor to their submission of task.
- The group shall be able to view the previous task along with status.
    - The group shall be able to see their progress mark by mentor in form of timeline.
- The group shall be able to manage the document regarding their project.
- The group shall be allow to share files with their members.
- The group shall be able to see the notification they received regarding upcoming events.

3.2 System requirement:

- Hardware Specification:
  Operating System: Windows 10 (64 bit)
  Processer: Intel(R) Core(TM) i3-3220 CPU @3.30 GHz 3.30 GHz
  Ram: 4.00GB
- Software specification:
  Server: XAMPP 8.0.28
  Database: MySQL 5.2.1
- Implement robust user authentication and authorization mechanisms to protect sensitive project data.
- System should be able to update progress bar of every group.
- System should be able to provide grants according user role.
- System should self explainable.
- System should be easily handle by user without much experience.

Chapter 4 Proposed methodology

4.1 Proposed work:

Modules of system:

1. User Management
2. Project Creation and Management
3. Task Management
4. Progress Tracking
5. Document Management

1. User management:

- In user management module system manage the details about user of system. User of systems are Admin, Mentor and group of student.
- System provide grants to each user according their role to use specific functionality related them.
- User can easily view, update and delete their details.

2. Project Creation and Management:

- System provide way to creation of new project activity, by registering each group, mentors to the system.
- System should provide list of group with each member details to admin which helps to efficiently assign mentor to every group.
- In project management module system manage the all project details with respected group details, along mentor details.
- These modules binds the project details, mentor details, group details.

3. Task Management:

- This module responsible to manages task of all groups
- Task Management module provide grants to mentor for assign new task, update task, view task, delete task to selected group
- The group can view the task, submit task, share task related file to their respected mentor.
- Every task have due date according due date group will notify.

4. Progress Tracking:

- This module provide a visual representation of every group progress
- The progress bar is used to show status of every group.
- Timeline is defined by admin i.e. weekly action plan.
- This timeline is attached to every group as checklist, the mentor of every group is allow to mark the activity.
- This checklist will act as an input to progress bar which will further shows the progress of every group to group itself, mentor and admin.

5. Document Management:

- This module manages the document in system.
- Mentor will be able to manage their document such as report, schedules
- at a one place. Mentor shall be easily view, edit, delete document.
- Group will also manage their document related to their project in system.
- This module responsible to manage all reports, schedules, files, which will further helps user to retrieve and easily find the document whenever needed.

4.2 Proposed design:

4.2.1 Block Diagram:

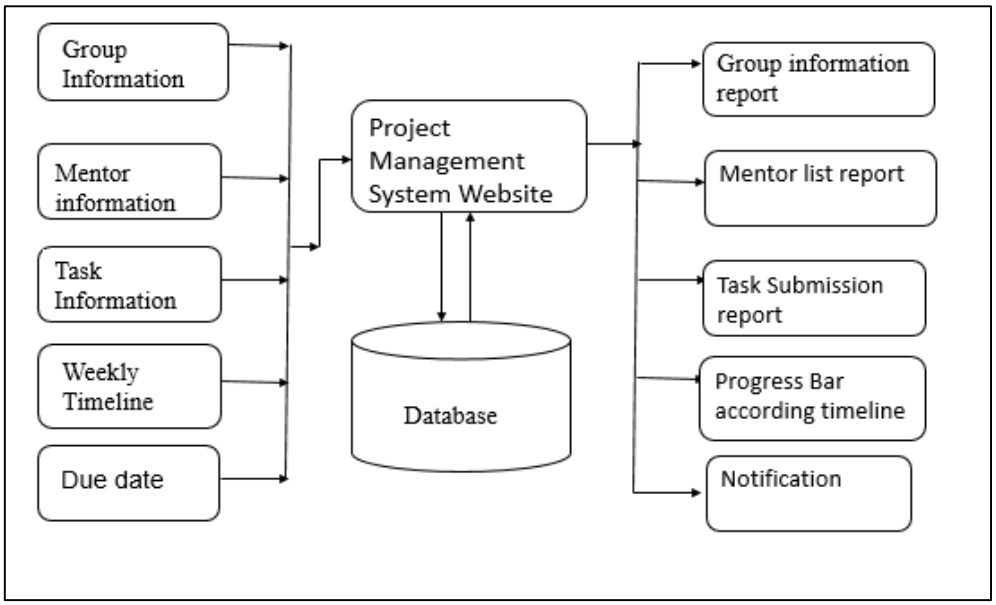


Figure 1 Block diagram

4.2.2 Site Map:

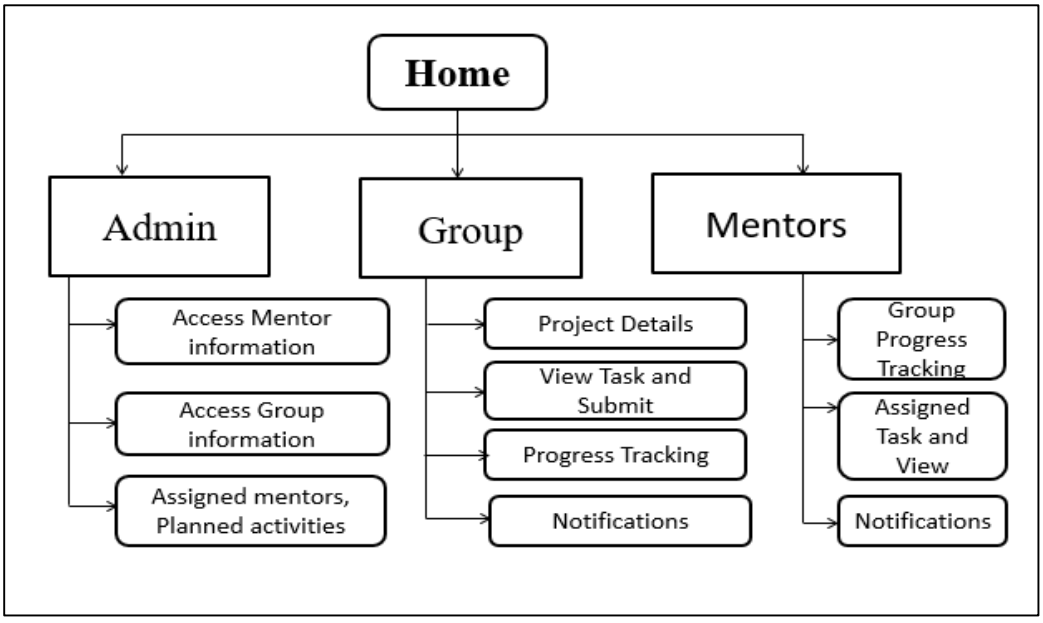


Figure 2 Site Map

4.2.3 Module Work Flow:

1. Project Creation:

Step 1. Registration:

1. Student shall have decided their group, can be of 4 members

- ✓ One of member will need to register the group in system.

  Member who will register need to provide all details of their group:

  For ex,

Roll No	Enrollment No.	Name of members	Yd Regular	Phone
			○ ○	
			○ ○	
			○ ○	
			○ ○	

After filling details Group need to decide their user name and password as login credentials.

2. Teacher also should need to register in system.

Name	Male Female	Phone	Email	Username	Password
	○ ○				

Step 2: Assign Mentor

Admin will only allow to assigned mentors:

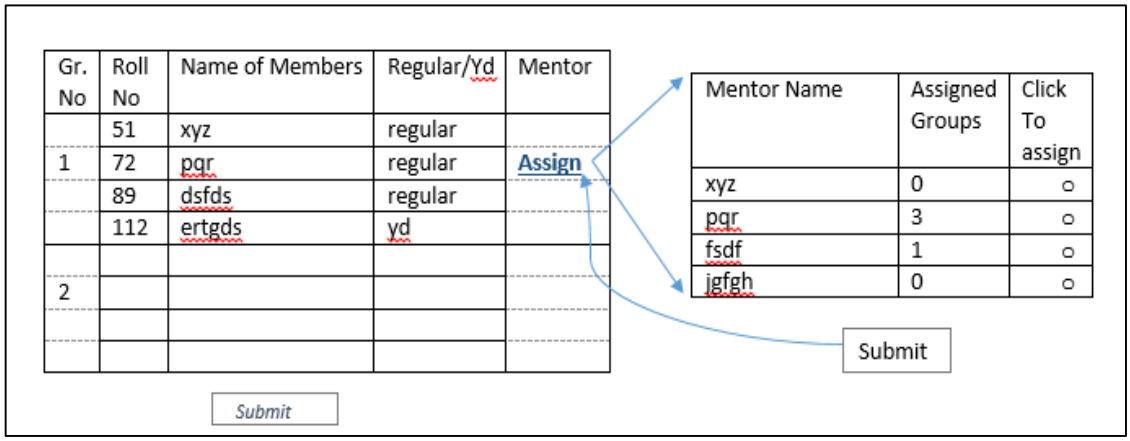


Figure 3 Assign Mentor

After Submitting this,

Mentor assigned to each group will display on their dashboard

and also mentor view the list of group under them on their dashboard.

2. Task Management:

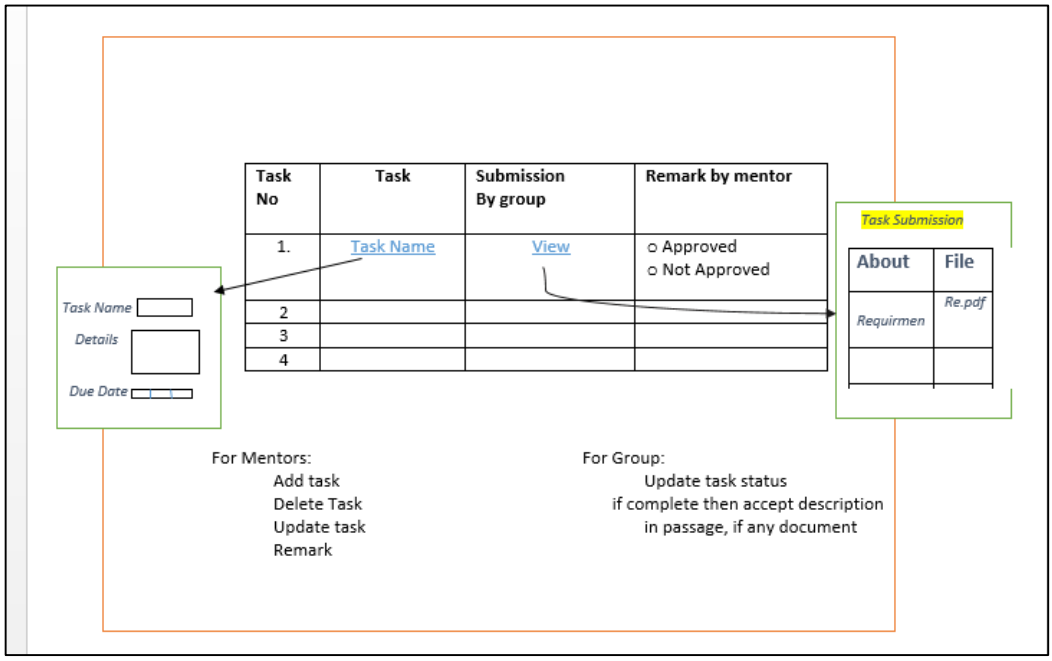


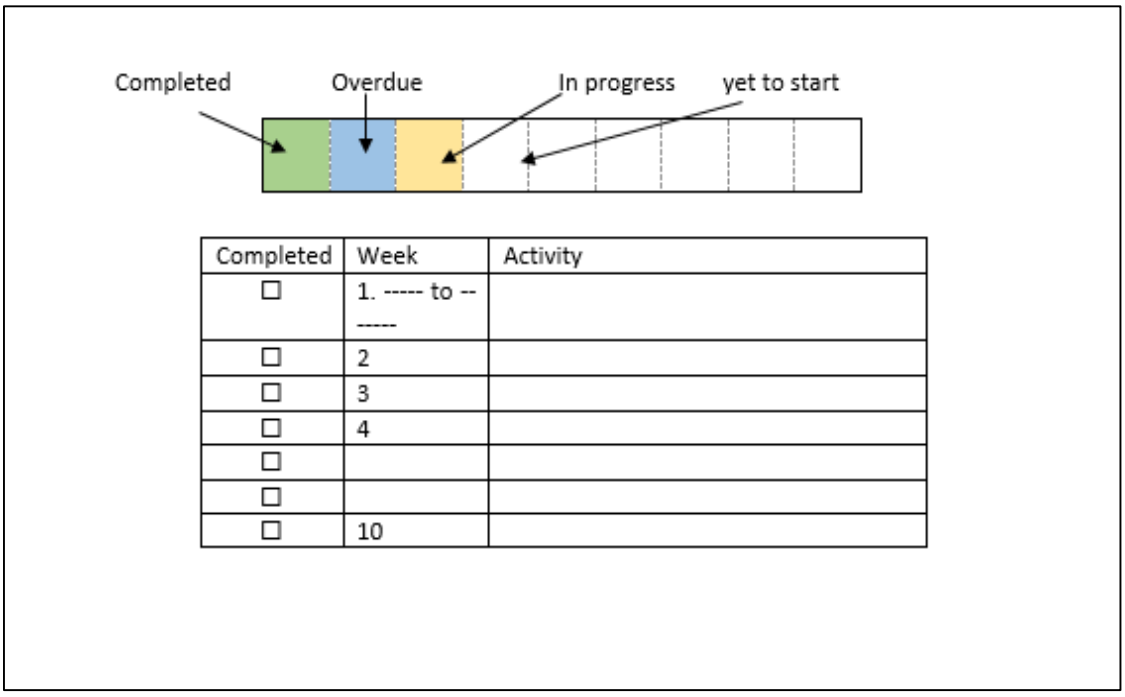
Figure 4 Task Module Layout

3. Progress Tracking:

Step 1: Timeline define by admin initially

Sr.No.	Activity	Week
1	Submit project ideas	------- to --------
10		

Step 2: It will form in type of checklist shown to groups and mentor dashboard



Completed	Week	Activity
☐	1. ----- to -----	
☐	2	
☐	3	
☐	4	
☐		
☐		
☐	10	

Figure 5 Progress Bar

4.2.4 Er diagram:

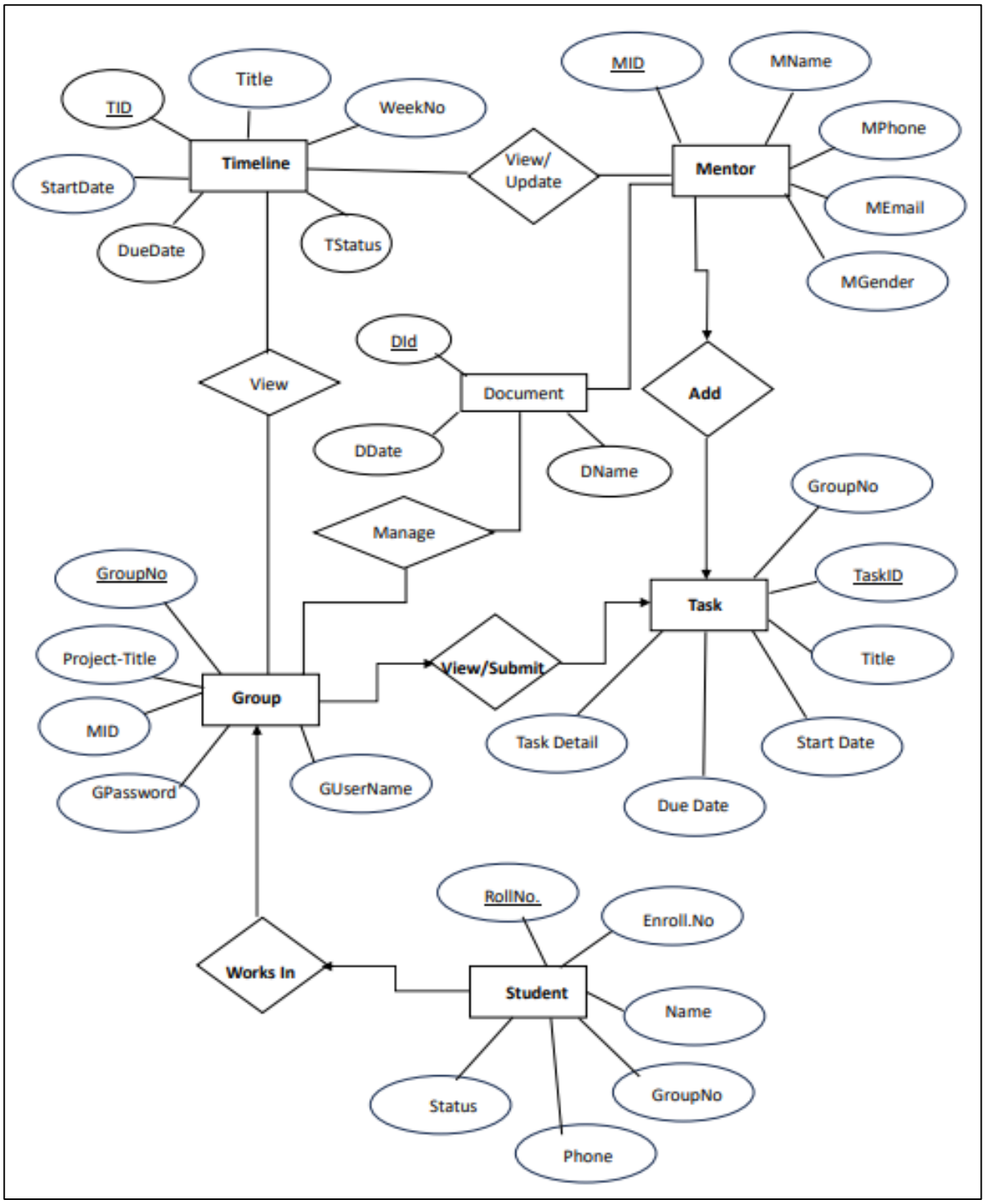


Figure 6 Er Diagram

Chapter No. 5 Action Plan for Sixth Semester (2023-2024)

Semester: CO 6 I **Subject: Capstone Project Execution (CPE - 22060)**

Even Semester Academic Schedule from **January 01, 2024 to April 09, 2024**

Sr. No.	List of Activities	Week	Dates
1	Design User Interface	Week 1	01/01/2024 to 06/01/2024
2	Design database structure, create database	Week 2	07/01/2024 to 13/01/2024
3	Develop GUI and various Interfaces	Week 3	14/01/2024 to 20/01/2024
4	Programming / coding , database connectivity, if required	Week 4	21/01/2024 to 27/01/2024
		Week 5	28/01/2024 to 03/02/2024
5	Installation of Project, Dummy Data Entry	Week 6	04/02/2024 to 10/02/2024
6	Testing	Week 7	11/02/2024 to 17/02/2024
7	Modifications (if any required)	Week 8	18/02/2024 to 24/02/2024
8	Project Report Writing	Week 9	25/02/2024 to 02/03/2024
9	Submission of project report	Week 10	03/03/2024 to 09/03/2024

Signature of group members

Roll No.	Name	Signature
41	Patil Atharva Jaywant	
46	Patil Lalit Sharad	
50	Patil Priyanshu Dipak	
51	Patil Raj Vijay	

Chapter 6 Reference and Bibliography

6.1 Reference:

https://www.wrike.com/project-management-guide/

https://hive.com/blog/project-management-software/

https://www.lucidchart.com

6.2 Bibliography:

Walker, Derek and Beverley Llioyd-Walker. “Rethinking Project Management”. International journal of Managing projects 9(September 5, 2016): 716-43. http://dx.doi.org/10.1108/ijmpb-12-2015-0121