

**Student Name:** KEERTHI SREE D

**Register Number:** 7376222CB125

**Seat No:** 28

**Project ID:**28

**Project Title:** MOU Database Maintenance

## Technical Components

Component	Tech Stack
Front End	React js
Back End	Node js with Express js
DataBase	MongoDB
API	OpenAPI

## PROBLEM STATEMENT:

The central hub for monitoring progress associated with each MOU, fostering collaboration,improving transparency for all involved. By streamlining data collection and reporting, the portal aims to enhance decision making and ensure successful MOU implementation leads to several challenges including :

- **Inefficiency:** Difficulty in accessing and analyzing activity data across multiple MOUs.
- **Limited Transparency:** Stakeholders lack a clear view of progress.
- **Poor Decision-Making:** Inconsistent data collection hinders informed decision making regarding MOU implementation.

## **PROJECT FLOW:**

### **Purpose:**

The purpose of this portal is to monitor the actions associated with each memorandum of understanding. To see the details of the MOUs, users must log in. The technology enables department-based screening and automatically changes the MOU status. MOU listings and data are shown in an intuitive manner, making it simple to access and manage these collaborations. It fosters easier collaboration by offering features for filtering and accessing MOU details related to conference, industrial visit and workshops. With enhanced data protection and management, administrators may carry out CRUD operations on MOU data.

### **Scope:**

Secure login system with potential user roles (admin, user). Users can filter the displayed MOU list based on Category(ongoing,active,expired), party type(industry ,institution, NGO) and department which allows users to focus on relevant MOUs. Ongoing MOUs are displayed first, sorted by start date to prioritize active collaborations.

## **SYSTEM OVERVIEW:**

**Users:** Users can view details about MOUs (agreements between colleges and companies/NGOs/institutions) filtered by their department and use this information to identify workshop, conference and industrial visit opportunities.

**Admin:** Able to create,update,edit and delete data in the list to keep the system organized and ensure users are accessing current information. It helps ensure accuracy and consistency of information.

## Features:

- **Responsive Design:** Ensure the portal functions seamlessly across devices (desktop, Mobile)
- **Secure User:** Authentication and data encryption.
- **Pagination:** Break down large numbers of MOUs in filtered results into smaller pages.
- **Sorting:** Sort displayed MOUs by validity date(descending) with ongoing agreements listed first.
- **User Interface:** User-friendly interface with clear navigation, intuitive layout and informative details.

## Functional Requirements:

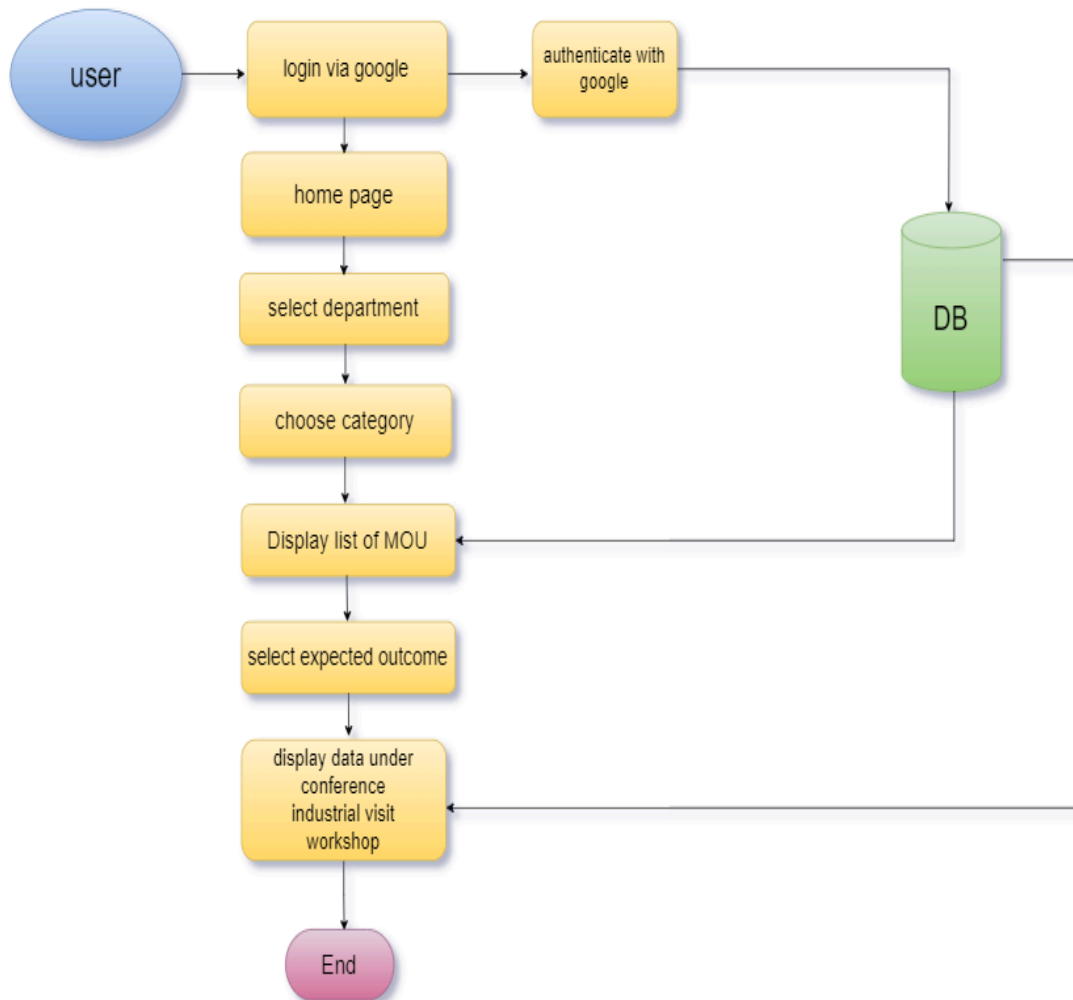
- **User Authentication:** Secure login system through Google OAuth.
- **Pagination for Large Datasets:** Break down extensive lists of MOUs into manageable pages using pagination for easier browsing and improved user experience.
- **Backend:** Utilize Mongoose queries in your Node.js backend to filter data based on user-provided criteria

## Non-Functional Requirements:

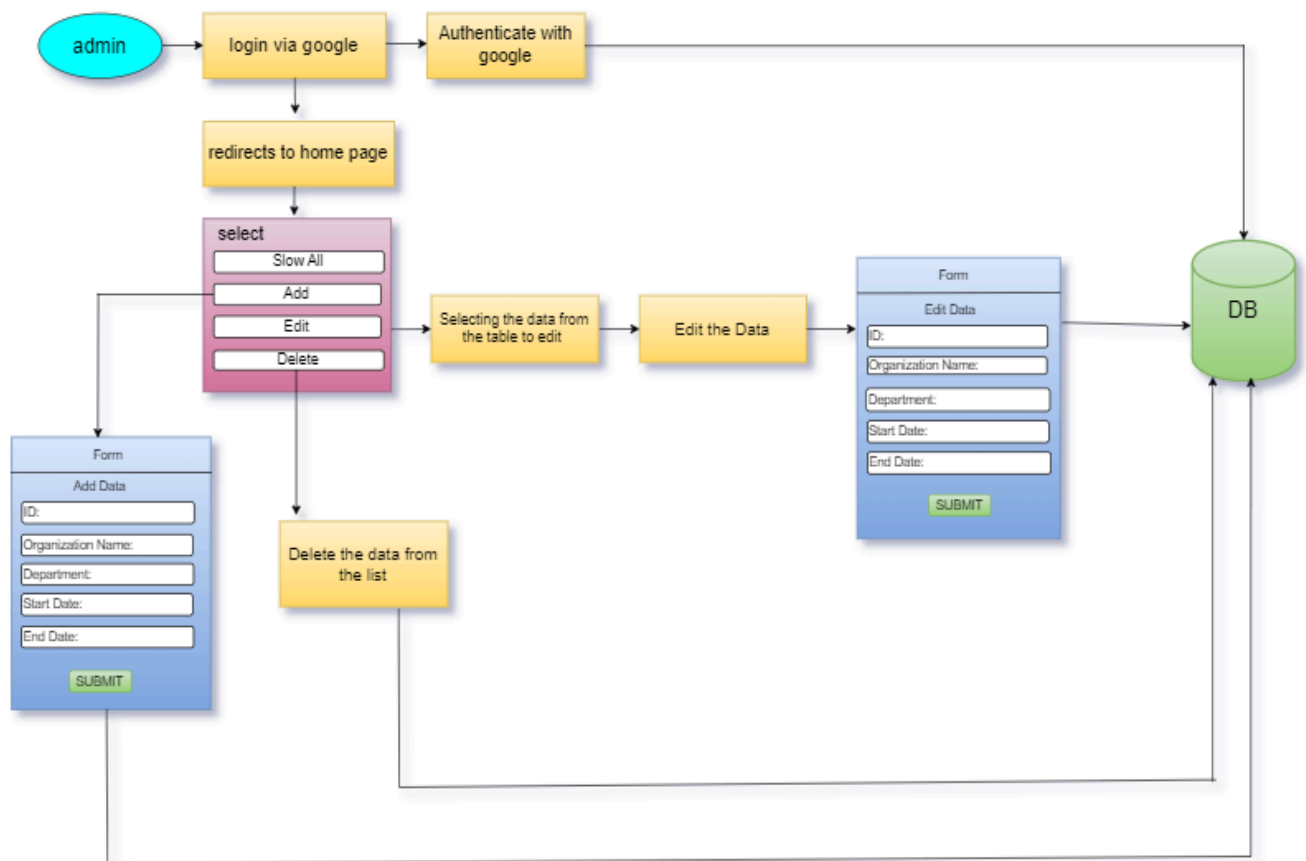
- **Performance:** The portal should be responsive and load quickly, even with large amounts of data or multiple users accessing it concurrently.
- **Scalability:** The system should be designed to accommodate future growth in the number of MOUs.
- **Security:** The portal must prioritize data security.

- **Maintainability:** The codebase should be well-documented and maintainable for future updates such that it has to adapt to the change.

## User's Interface

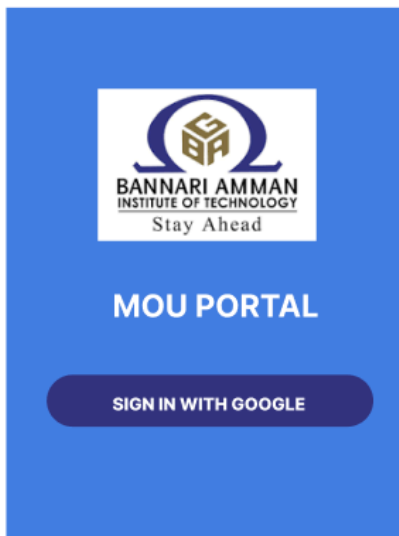


## Admin's Interface



## Prototype of the project:

### 1.Login Form:



## 2.User's view

WELCOME!!!

K

Select Department >

S.NO	NAME	DEPARTMENT	START	END	STATUS
1	Qualcomm	CSBS	03-06-2023	01-06-2025	ongoing
2	Sirius	CD	21-02-2024	01-12-2025	ongoing
3	AppviewX	CSE	13-01-2025	01-06-2025	Active
4	Turing	ECE	23-02-2025	29-10-2025	Active
5	Presidio	CSBS	18-02-2023	25-03-2024	Expired

## COMPUTER SCIENCE AND BUSINESS SYSTEMS

ALL

INDUSTRY

INSTITUTE

NGO

EXPECTED OUTCOME

STATUS

Ongoing

Active

Expired

S.NO	NAME	DEPARTMENT	START	END	STATUS
1	Qualcomm	CSBS	03-06-2023	01-06-2025	ongoing
2	Sirius	CSBS	21-02-2023	01-12-2024	ongoing
3	AppviewX	CSBS	13-01-2023	01-06-2025	Active
4	Turing	CSBS	23-02-2024	29-10-2025	Active
5	Presidio	CSBS	18-02-2023	25-03-2026	Expired



## EXPECTED OUTCOME

INDUSTRIAL VISIT

WORKSHOP

GUEST LECTURE

S.NO	NAME	DEPARTMENT	START	END	STATUS
1	Qualcomm	CSBS	03-06-2023	01-06-2025	ongoing
2	Sirius	CSBS	21-02-2023	01-12-2024	ongoing
3	AppviewX	CSBS	13-01-2023	01-06-2025	Active
4	Turing	CSBS	23-02-2024	29-10-2025	Expired
5	Presidio	CSBS	18-02-2023	25-03-2026	Expired

### 3.Admin's view



WELCOME!!!

A

ALL

Create

MOU under renewal



	S.NO	NAME	DEPARTMENT	START	END	STATUS
<input checked="" type="checkbox"/>	1	Qualcomm	CSBS	03-06-2023	01-06-2025	Expired
<input type="checkbox"/>	2	Sirius	CD	21-02-2024	01-12-2025	Expired
<input checked="" type="checkbox"/>	3	AppviewX	CSE	13-01-2025	01-06-2025	Expired
<input type="checkbox"/>	4	Turing	ECE	23-02-2025	29-10-2025	Expired
<input type="checkbox"/>	5	Presidio	CSBS	18-02-2023	25-03-2024	Expired

## 4.Create/Update form

**WELCOME!!!**

A

CREATE

ID:

Name:

Department:

Start Date:

End Date:

SUBMIT

UPDATE

ID: 12

Name: Qualcomm

Department:CSBS

Start Date:09-05-2023

End Date:21-04-2025

SUBMIT