## BANNARI AMMAN INSTITUTE OF TECHNOLOGY

**An Autonomous Institution Affiliated to Anna University - Chennai, Accredited by NAAC with A+ Grade**

**Sathyamangalam - 638401 Erode District, Tamil Nadu, India**

## SOFTWARE REQUIREMENT SPECIFICATION

| | |
|---|---|
| **STUDENT NAME** | BALAKRISHNAN T |
| **ROLL NO** | 7376221CS122 |
| **SEAT NO** | 228 |
| **PROJECT ID** | 28 |
| **PROJECT TITLE** | MoU DATABASE MAINTENANCE |

**Problem Statement:**

1. To develop a web portal to track activities under each Memorandum of Understanding (MOU).
   - The portal should list the current MoUs and recently expired ones.
   - To filter the MoU base on the following condition:
     1. Department wise
     2. Company/Organisation wise
     3. Outcome wise(like placement, internship, etc.,)
   - Track activities, updates, deadlines, status (e.g., pending, in progress, completed) for each MoU.

- Additionally, create a form for uploading MoUs with all required details.

**Stages of the Development:**

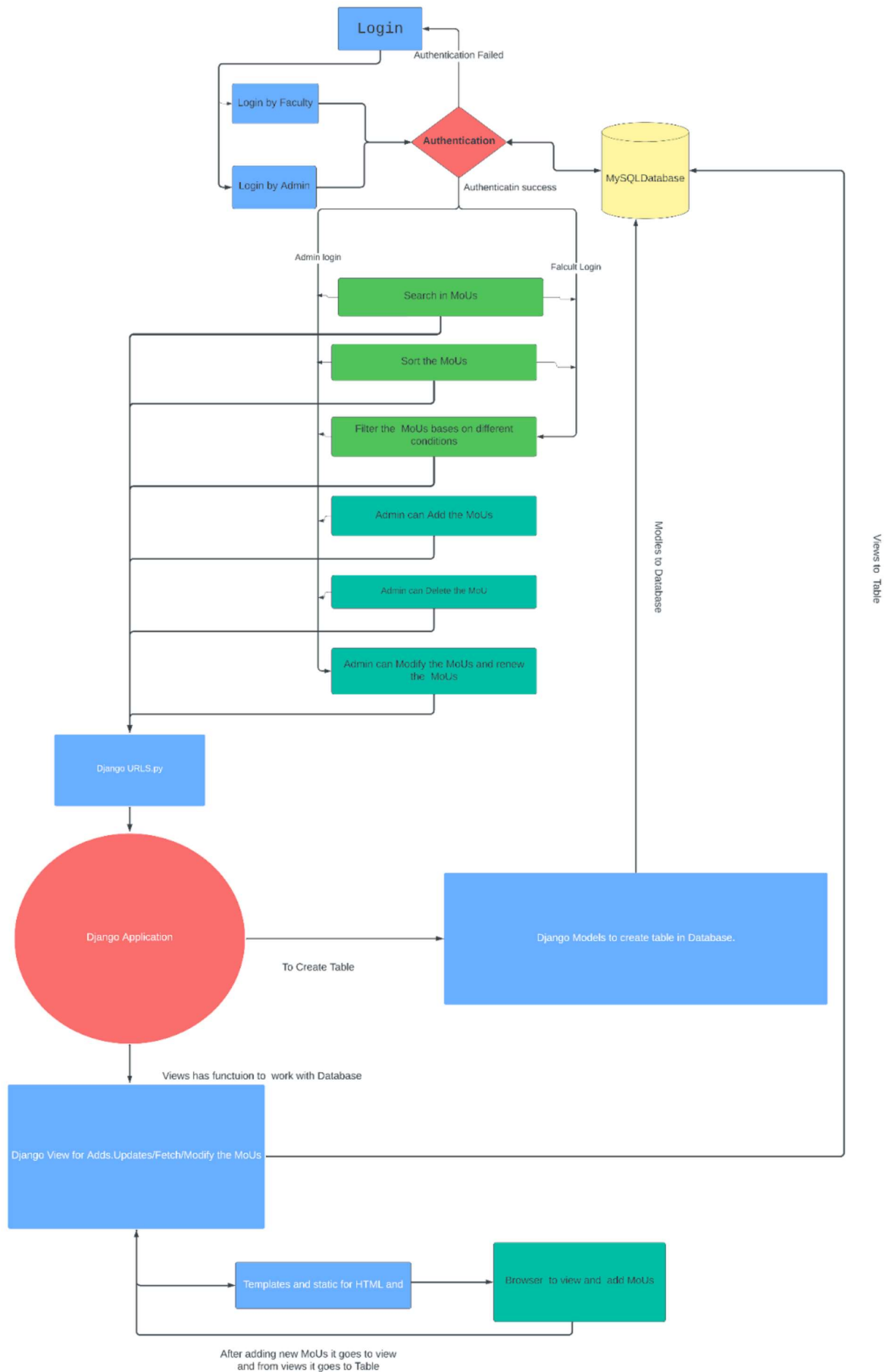| Phase | Status | Notes |
|---|---|---|
| Stage 1 | Approved ▾ | Planning and requirement Gathering |
| Stage 2 | In progress ▾ | Design and UI/UX prototyping |
| Stage 3 | Not started ▾ | Database Design and implementation |
| Stage 4 | Not started ▾ | Backend Development |
| Stage 5 | Not started ▾ | Integration and testing |
| Stage 6 | Not started ▾ | Deployment |

**Technical Components- Python Stack:**

| Components | Tech Stack |
|---|---|
| Front End | HTML, CSS, Javascript |
| Back End | Django |
| Database | MySQL |

**Control Flow of the Project:**

1. Login and user roles(faculty and Admin):
   - Faculty users have limited permissions, including sorting, searching and filtering MoUs.

- Admin users have extended permissions, allowing them to add, update, delete, and modify the MoUs in addition to faculty actions

2. MoU display and expiry handling:
   - The webportal lists all the MoUs that are not expired.
   - The expired MoUs are also displayed temporarily for a few days to allow for renewal.
   - Renewed expired MoUs return to the active list, while unrenewed ones are not displayed after a period of time.
3. MoU Upload and Details:
   - Users can upload MoU files to the portal, providing details such as title, description, start date, end date, department, company/organization, outcome, etc in webportal.
   - These details play an important role in sorting, searching, filtering and categorizing MoU within the portal.
4. Sorting and Filtering:
   - The portal's main functionalities is to sort MoUs based on various criteria, such as department, company/organization, outcome.
   - Users can apply filters to choose specific parameters, enhancing search and navigation capabilities.
5. MoU Reports and Tracking:
   - Each MoU has its own report, providing informations about tracking activities, deadlines, and status of that MoU
   - Reports will help user to monitor the progress of MoUs, track deadlines, and assess the current status of MoUs

**Flowchart:**

Login

Authentication Failed

Login by Faculty

Login by Admin

Authentication

Authenticatin success

MySQLDatabase

Admin login

Falcult Login

Search in MoUs

Sort the MoUs

Filter the MoUs bases on different conditions

Admin can Add the MoUs

Admin can Delete the MoU

Admin can Modify the MoUs and renew the MoUs

Django URLS.py

Django Application

To Create Table

Django Models to create table in Database.

Views has functuion to work with Database

Modles to Database

Views to Table

Django View for Adds.Updates/Fetch/Modify the MoUs

Templates and static for HTML and

Browser to view and add MoUs

After adding new MoUs it goes to view and from views it goes to Table

**Backend Design:**

1. Entities:
   - The user entities are used by both faculty and admin members.
   - The MoU entities will have all information about the MoU

2. Attributes:
   - The user have the attributes as userId, username, email, and role(faculty or admin)
   - MoU attributes will have the attributes as MoU title, description, start and end date, outcome and department.

**Conclusion:**

Development of the MoU web portal is aimed at providing a platform for efficiently tracking and managing Memorandums of Understanding. With features like filtering based on departments, companies, and outcomes, along with detailed activity tracking and user role differentiation, the portal ensures transparency, collaboration, and effective decision-making.