TIMETABLE GENERATOR

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PROJECT ID	23
PROJECT TITLE	TIMETABLE GENERATOR

1.INTRODUCTION:

- **Overview of the timetable generator:** Describe the purpose of the timetable generator, its target audience, and the problems it aims to solve. Mention its key features and benefits.
- **Purpose and scope of the documentation:** Explain what this documentation covers, who it is intended for (end users, administrators, developers), and how it is organized.

2.SYSTEM REQUIREMENTS:

Listing the hardware and software requirements for installing and running the timetable generator.

FRONT END	Vue.js
BACK END	Node.js with Express.js
DATABASE	MongoDB
API	RESTFul API

3. USER GUIDE:

- **User interface overview:** Describe the main components of the user interface, including menus, toolbars, and main windows.
- **Creating a new timetable:** Step-by-step instructions for creating a new timetable from scratch.
- **Adding, editing, and deleting events:** Detailed guide on how to add, modify, and remove events or sessions in the timetable.
- **Importing and exporting data:** Explain how to import data from external sources (e.g., CSV files) and export timetables to different formats.
- **Generating reports:** Instructions on creating and customizing reports based on the timetable data.

4. FEATURES AND FUNCTIONALITY:

- **Scheduling algorithms:** Explain the algorithms used for scheduling, their logic, and how they ensure optimal timetables.
- **Conflict detection and resolution:** Describe how the software detects scheduling conflicts and the available options for resolving them.
- **Notifications and reminders:** Explain how to set up and manage notifications and reminders for events.
- **Timetable Display:** Provide students with a view of their personal class schedules.

Provide faculty with a view of their teaching schedules. Allow administrators to view and

manage overall schedules for all users.

5. ADMINISTRATIVE FUNCTIONS:

- **User management (roles, permissions):** Guide on managing users, assigning roles, and setting permissions.
- **Data backup and restoration:** Instructions for backing up and restoring timetable data.
- **Configuration settings:** Overview of the configuration settings available to administrators.

6. ADVANCED USAGE:

- **Integrating with other systems (API usage):** Instructions on how to integrate the timetable generator with other systems using its API.
- **Automation scripts:** Examples of automation scripts for common tasks.
- **Custom scheduling rules:** Guide on defining and applying custom scheduling rules.

7. SCOPE:

- **Architecture overview:** Detailed explanation of the software's architecture and design principles.
- **Development setup:** Instructions for setting up a development environment. Guide on how to extend the software by adding new features.
- **Testing and debugging:** Instructions for testing and debugging the software.

Contributing to the project: Guidelines for contributing to the project, including coding standards and submission processes.This System encompasses the design, development, implementation, and maintenance of a

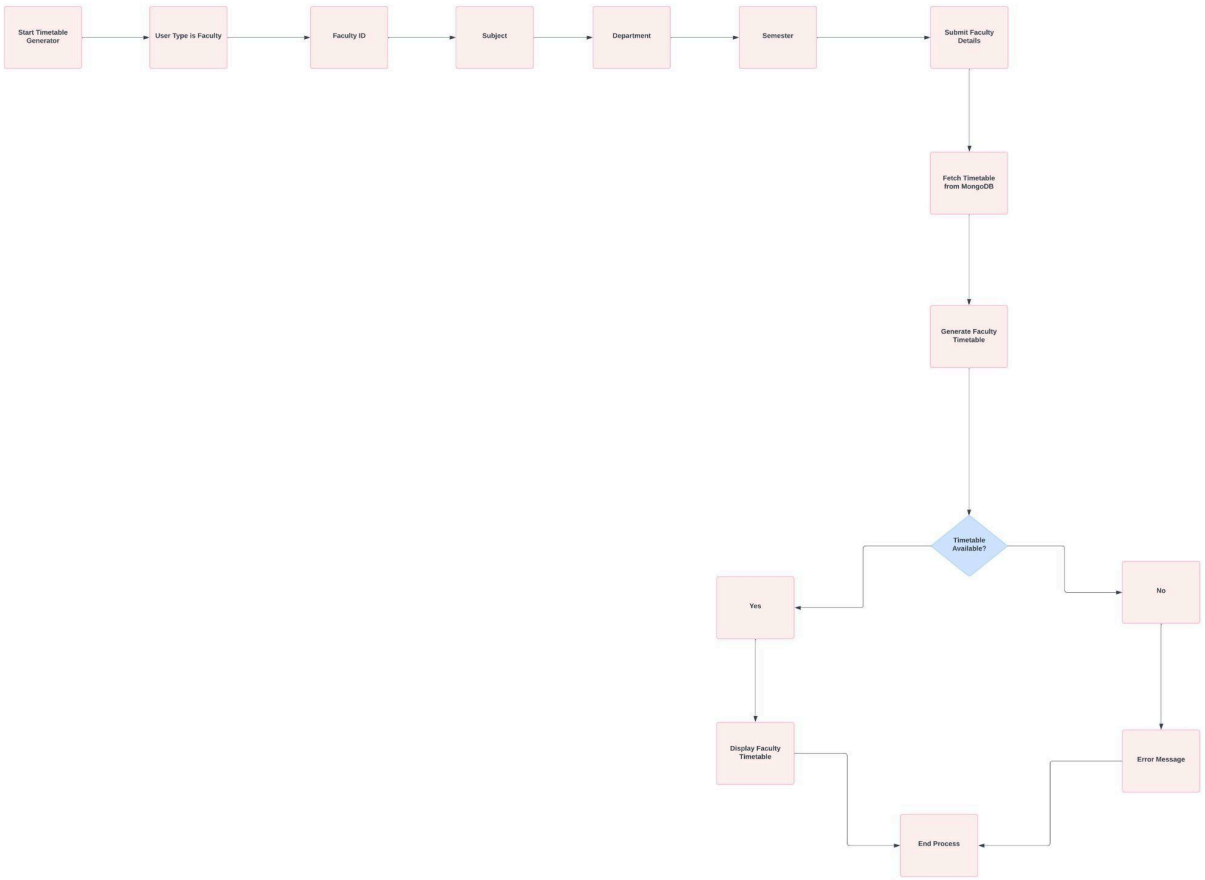
system that automates the creation of timetables for a college setting. The scope covers various aspects, including user roles, functionalities, constraints, and technology stack.

8.API DOCUMENTATION:

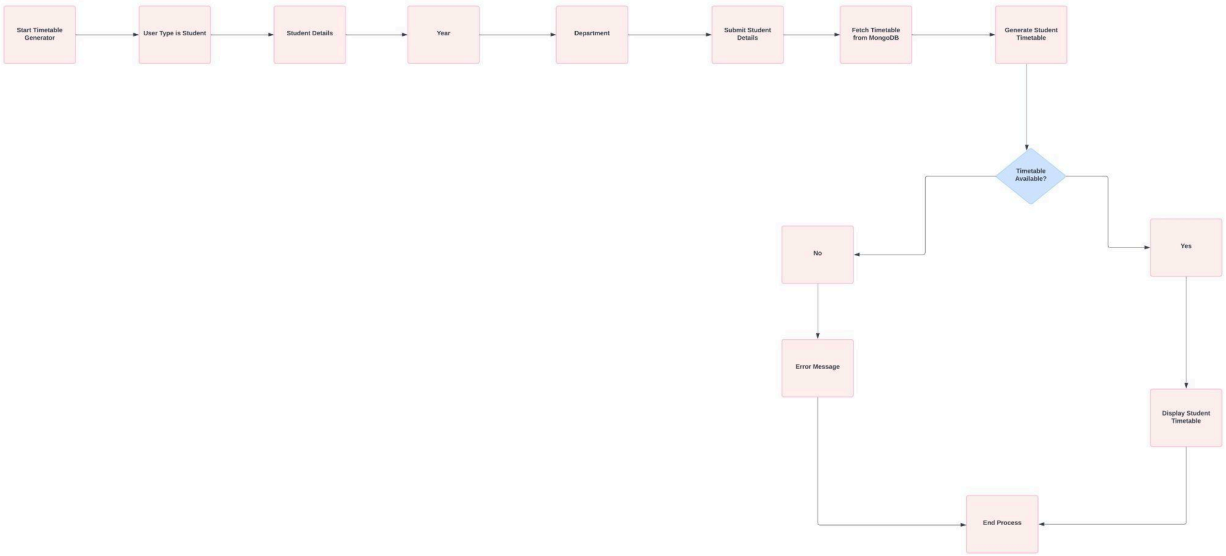
- **Overview of the API:** General information about the API, including its purpose and capabilities.
- **Authentication and authorization:** Instructions on how to authenticate and authorize API requests.

FLOWCHART :

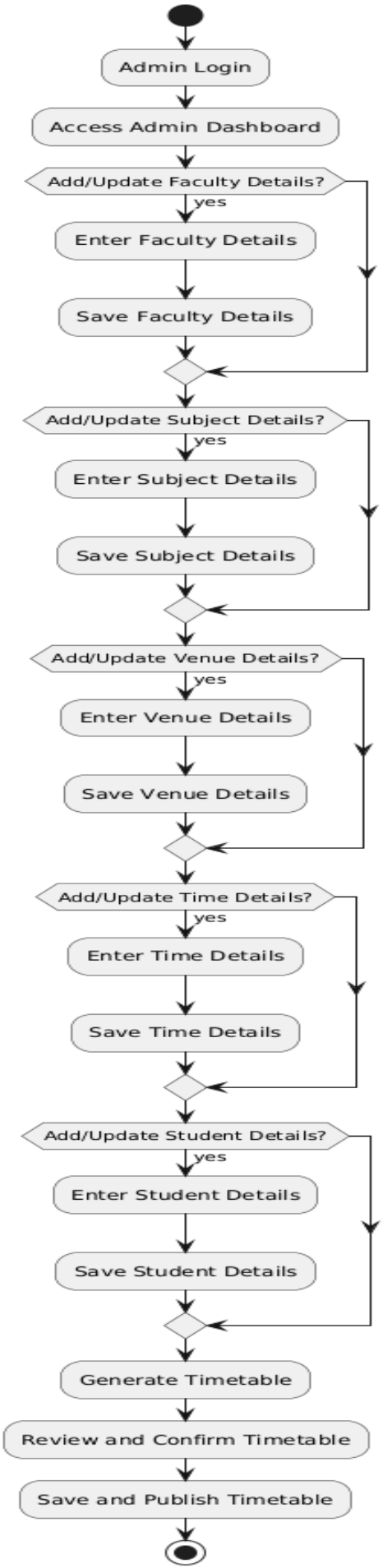
FACULTY :


Start Timetable Generator
User Type is Faculty
Faculty ID
Subject
Department
Semester
Submit Faculty Details
Fetch Timetable from MongoDB
Generate Faculty Timetable
Timetable Available?
Yes
No
Display Faculty Timetable
Error Message
End Process

STUDENT:



ADMIN PORTAL FLOWCHART:


Admin Login
Access Admin Dashboard
Add/Update Faculty Details?
yes
Enter Faculty Details
Save Faculty Details
Add/Update Subject Details?
yes
Enter Subject Details
Save Subject Details
Add/Update Venue Details?
yes
Enter Venue Details
Save Venue Details
Add/Update Time Details?
yes
Enter Time Details
Save Time Details
Add/Update Student Details?
yes
Enter Student Details
Save Student Details
Generate Timetable
Review and Confirm Timetable
Save and Publish Timetable