Student Name: VAISHNAVI B

Project ID: 24

Project title: Invigilation Duty Automation

Technical Components

Component	Tech Stack
Backend	Django
Frontend	HTML,CSS,JS
Database	MySQL
API	RESTful services

Implementation Timeline

Phase	Deadline	Status	Notes
Stage 1	03/06/2024	Approved	Planning and Requirement gathering
Stage 2			Design and Prototyping
Stage 3			DB Designing
Stage 4			Backend Implementation
Stage 5			Testing & Implementation

PROBLEM STATEMENT:

Creating invigilator duty charts by hand in schools is slow and often full of mistakes. Problems include poor duty assignment, hard-to-track issues, no guidance for invigilators, and trouble ensuring they are in the right place. An automated system is needed to make duty assignments easier, track problems, guide invigilators, ensure they are present, and provide backup if someone is absent. This will make exam management more efficient, accurate, and clear, leading to better educational results.

PROJECT-FLOW:

Purpose:

The purpose of the automated invigilation system is to efficiently allocate duties, track issues, guide invigilators, and ensure their presence during exams, enhancing efficiency, accuracy, and transparency in examination management.

Scope:

The automated invigilation system aims to quickly assign duties to teachers. Modern exams are complicated, so we need advanced, automatic scheduling methods instead of the old manual ones.

Business Context:

The business context for automating invigilation duty allocation is about efficiently managing exams in schools. The current manual method of assigning teachers for invigilation is slow and error-prone, causing inefficiencies and problems during exams. Automating this process aims to streamline the assignment of teachers, ensuring they are correctly assigned and informed about their duties through website. Their assigned class is shown if the biometric is kept on time. If the biometric is kept late it checks the leave list. If the faculty is on leave it will assign an alternate faculty. If the faculty is late, it will give them additional duty as a punishment. The system should be designed to improve efficiency, accuracy, and transparency in exam management, leading to better educational outcomes. Automation of invigilation duty allocation can significantly benefit educational institutions.

1. **Efficient Exam Management**: Automating duty assignments makes scheduling teachers for exams faster and more accurate.

2. **Fewer Errors**: The system reduces mistakes compared to manual methods, making exams run more smoothly.

3.**Automated Notifications**: Teachers get automatic duty notifications through the website, keeping them informed about their assignments.

4. **Biometric Tracking**: The system uses biometric data to track punctuality, assigning extra duties for lateness and replacements for absences.

User Stories:

- **Admin:** The administrator logs in and manages the exam schedule by uploading details, configuring professor positions, and assigning classrooms. They have the authority to modify faculty, rooms, and exam details, and run a scheduling algorithm. The administrator also has access to staff information and can generate detailed reports.
- **Faculty:** Faculty log in with their employee ID and password. They are randomly assigned classrooms, date, and time, and can add an alternate ID if unable to attend. Administrator registers new accounts if needed.
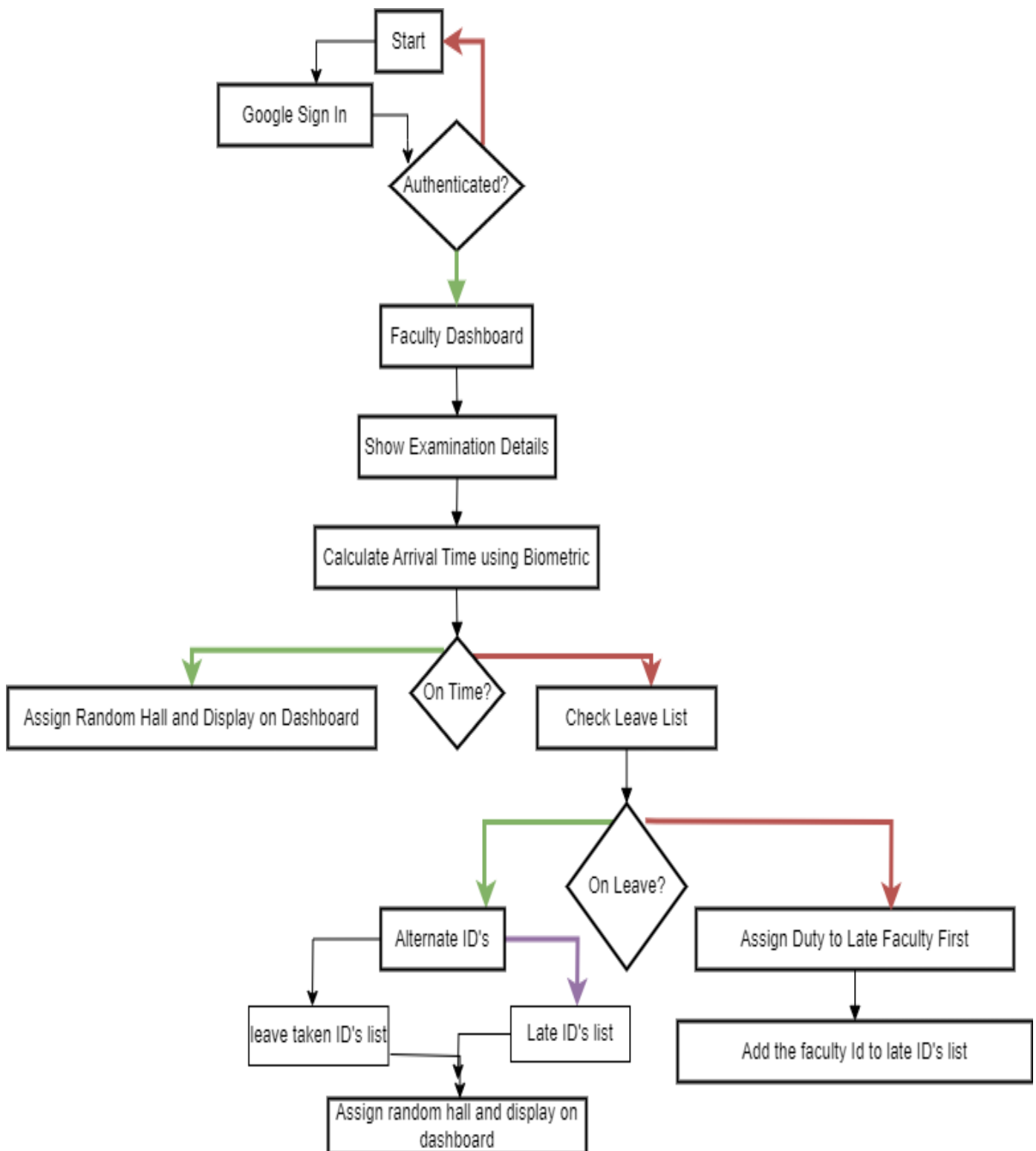
By automating the invigilation duty allocation process, schools can make exam management more efficient and effective, improving the experience for students and teachers.

Functional Requirements:

- **User Authentication:** Implement secure login and account registration for administrators and faculty.
- **Random Assignment and Scheduling:** Develop AI to randomly assign and display classrooms, dates, times in a lottery-style format.
- **Faculty Management:** Allow faculty to view duties, request changes, and provide alternates.
- **Administrative Control:** Enable admin to modify details, run schedules, and generate reports.
- **Biometric Tracking**: The system uses biometric data to verify teacher attendance and punctuality, ensuring accurate records and timely duty assignments.

FLOW CHART:

FACULTY:

ADMIN: