Software Requirement Specification for
Bus Registration Portal

Name	Abimanyu M V P
Roll no	7376221CS103
Seat no	219
Project ID	19
Problem Statement	Bus Registration Portal
Stack	Python Stack

Technical Components :

Components	Tech Stack
Backend	Django
Frontend	HTML , CSS , Javascript
Database	Postgresql
API	REST Ful API

1. Introduction :

The Bus Registration Portal is a software application designed to manage bus seating for dayscholar students. It facilitates the registration of students for bus services at the beginning of each semester, allocates specific seats to students for the duration of the semester, records student attendance, and communicates important updates such as bus route changes and timings to students via email or SMS.

2. Scope :

The Bus Registration Portal provides a user-friendly platform for students to register for bus services at the commencement of each semester. Upon registration, seats are allocated randomly for male students starting from the back of the bus and for female students starting from the front. Additionally, the system enables efficient attendance tracking and real-time communication with students regarding any updates or modifications to bus routes and timings.

3. System Overview :

3.1. Users :

1. Students :

Students are able to register for their buses and view updates to bus routes, as well as access information about their attendants on the website.

2. Faculty :

Faculty members can record student attendance by selecting the corresponding buses and view the student details .

3. Admins :

Admins have access to modify bus routes, allocate seats, and track attendance for individual students.

4. Functional Requirements :

4.1. Registration Module :

- Students create accounts by providing details such as name, Roll number, contact information, and email address.
- Students select desired bus routes and Register for their buses.

4.2. Seat Management Module :

- Seats are allocated randomly upon registration, with male students assigned seats from the back of the bus and female students from the front.

4.3. Attendance Tracking Module :

- Bus attendants use the app to register student attendance for each trip, ensuring accurate tracking of student presence.
- Students can view their assigned attendance through the website.
- Admins can also ensure the attendance of the student.

4.4. Communication Module :

- The system sends timely notifications to students via email/SMS for route changes, timing adjustments, and seat allocation details.

5. Non Functional Requirements :

5.1. Performance :

- The system is designed to efficiently handle concurrent user sessions, ensuring minimal downtime and optimal performance during peak usage periods.

5.2. Security :

- Security measures are implemented to safeguard user data and prevent unauthorized access, maintaining the confidentiality and integrity of student information.

5.3. Usability :

- The user interface is intuitively designed to cater to users with varying levels of technical proficiency, ensuring a seamless and hassle-free experience for all students.

5.4. Reliability :

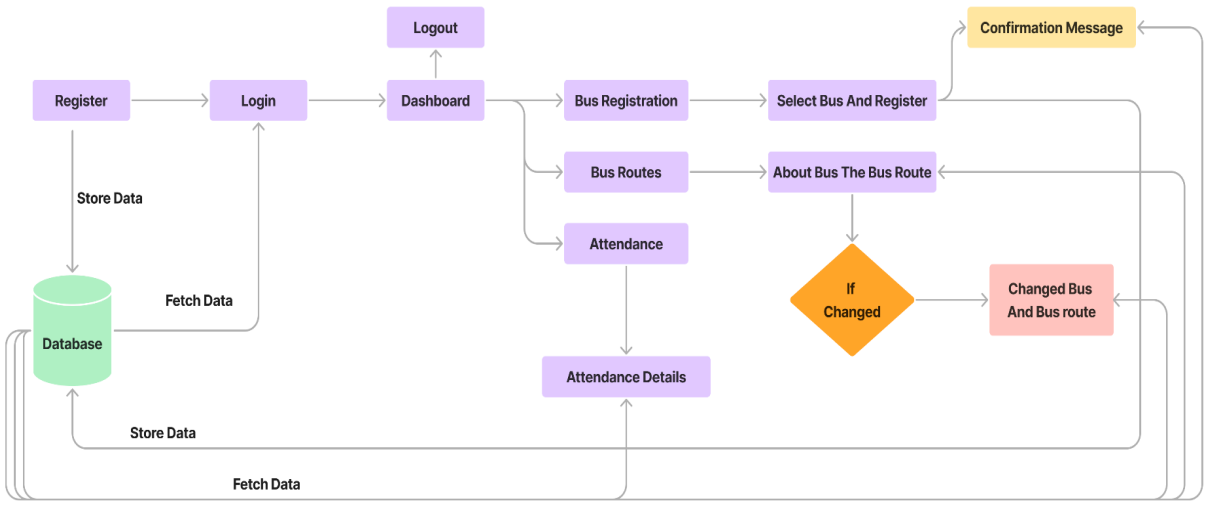
- The system should be available 24/7 with minimal downtime and should have a backup and recovery mechanism in place to prevent data loss in case of system failures or crashes.

5.5. Scalability :

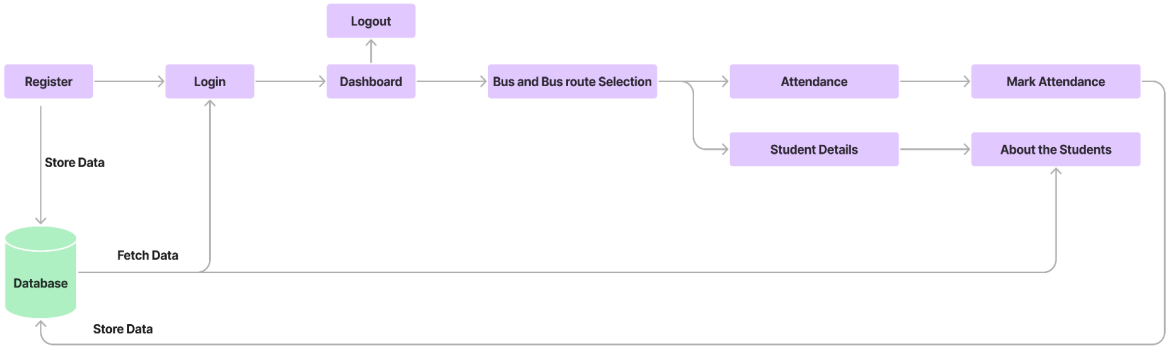
- According to future needs, the system should be expandable to enable more features and functionalities. It should also be built to handle a growing user base and volume of data.

6. FlowChart :

6.1. Students :



6.2. Faculty :



6.3. Admin :