Student Name: RIYASHINI B

Seat No: 354

Project ID: 13

Project Title: Vehicle Booking

Stack: MEAN

Software Requirement Specification for Vehicle Booking

Technical Components:

Components	Tech Stack
Frontend	Angular.js
Backend	Express.js and Node.js
Database	MongoDb

Implementation Timeline:

Phase	Deadline	Status	Notes
Stage 1	03/06/2024	Under review ▾	Planning and requirement gathering
Stage 2		Not started ▾	Design and prototyping
Stage 3		Not started ▾	DB designing
Stage 4		Not started ▾	Backend Implementation
Stage 5		Not started ▾	Testing and Implementation
Stage 6		Not started ▾	Deployment

1. Introduction

1.1. Purpose:

- The purpose of this document is to provide an overview of the project Vehicle Booking portal for faculty.

- This will explain how the portal works based on the requirements gathered from the client.

1.2. Scope of the project:

- The vehicle booking portal will facilitate the faculties to register for the vehicle they want.

- This portal provides information about the availability of the vehicles and the drivers at the time of registration.

- Faculty want to fill the form with the necessary information that is the time and date at which they need the vehicle along with the purpose.

- If they choose the car want to specify the number of seats (5 seaters or 7 seaters).

2. System Overview:

2.1. Faculty:

- Faculty can check the status through the notifications sent by the admin and if the form is rejected they get notified through SMS/Email.

- They have access to view previous booking history and driver availability at the time of booking.

2.2. Admin:

- Admin can view and update the booking status.

- Admin can update the driver details and the vehicle details.

3.1. Functional Requirement:

- **Admin Access:**

  - Admin can log in or sign up.

  - They have access to view the booking status and send whether the booking is accepted or rejected along with the reason.

  - Admin has access to update the new vehicle details and the new driver details.

Faculty Access:

- **Status Details:**

  - Faculties can get notifications regarding the booking status whether the booking is completed or not.

  - When the booking is accepted get notified and if rejected the reason is mentioned.

- **Booking History:**

  - Faculties can view their previous booking history along with the date and time.

  - Filtrations can be made for the date and time.

- **Form Details:**

  - The faculties can register the bus or car according to their needs. The number of seats they needed is also mentioned in the registration form. The form has the following details:
    - ✓ Date
    - ✓ Time
    - ✓ Purpose
    - ✓ Type of vehicle

  - If the type of vehicle is a car, faculty want to specify the number of seats.

○ **Driver Availability:**

- Faculties can have access to view the driver's availabilities at the time of booking the vehicle.
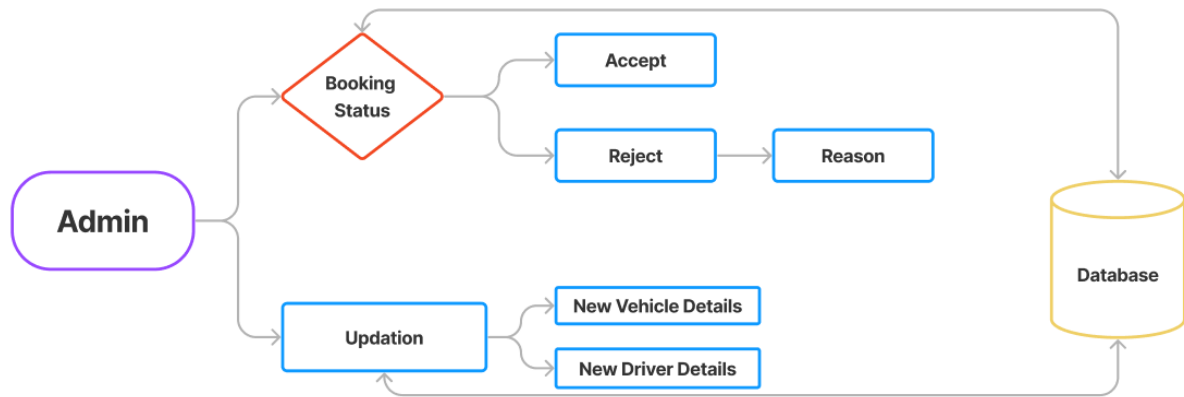
3.2 Non-Functional Requirements:

- **Performance:** The system must respond to user input in less than 2 seconds and be able to accommodate at least 100 concurrent users without noticeably degrading performance to ensure effective usability.

- **Security:** User data must be protected during transmission and storage, and only approved admin users should be able to access important services through secure authentication methods.

- **Usability:** If input errors or system failures occur, users should be directed by clear and concise error notifications on the user interface, which should be user-friendly and intuitive.

- **Reliability:** The system should be available continuously with little downtime, along with a backup and recovery strategy to reduce data loss in case of system faults or crashes.

- **Scalability:** The system should be designed to accommodate an expanding user base and volume of data over time, in addition to being expandable to enable additional features and capabilities as needed in the future.

Registration Form Entity:

Date	DATE
Time	INT
Purpose	STRING
Type of vehicle	INT
No. of seats (if needed)	INT

Flow chart:

ADMIN:

FACULTY: