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GROUP PROJECT

 (Nanda Rishi) 24162582017

 (Aryan Lunechiy) 24162582016

 (Vishva Patel) 241625712012

Software Requirements Specification (SRS) for Vejhaan

1. Introduction

This document provides a high-level overview of the Vejhaan application, setting the context for its development and requirements.

1.1 Purpose

- The purpose of Vejhaan is to store data of authenticated hospitals and vehicles.

- The application helps users in medical emergencies by ensuring that traffic fines (challans) are waived if they used a registered hospital and vehicle during a critical medical situation.

- The intended audience includes developers, project managers, testers, and relevant stakeholders.

1.2 Scope

- Vejhaan will store and manage data for authenticated hospitals and vehicles.

- The application will verify users' emergency situations by checking their hospital and vehicle records.

- If a user receives a traffic challan during an emergency, the system will allow for the cancellation of the challan based on verified data.

- The application will not process non-emergency cases or unauthorized vehicle and hospital data.

- The goal is to support medical emergencies and improve traffic regulation fairness.

1.3 Definitions, Acronyms, and Abbreviations

- **Challan**: A traffic fine issued for rule violations.

- **Authenticated Hospital**: A hospital verified and registered in the system.

- **Registered Vehicle**: A vehicle stored and verified within the system.

- **Emergency Situation**: A critical medical emergency requiring immediate hospital access.

1.4 References

- Traffic regulation policies.

- Hospital verification standards.

- Emergency medical response protocols.

2. Overall Description

This section describes the general factors that affect the Vejhaan application and its requirements.

2.1 Product Perspective

- Vejhaan acts as an intermediary between traffic authorities, hospitals, and users.

- The system will integrate with existing traffic databases and hospital records.

- APIs will be used to fetch and validate data.

2.2 Product Functions

- Data storage for authenticated hospitals and registered vehicles.

- Verification system for emergency-based challan cancellation.

- User interface for hospital and vehicle registration.

- Integration with traffic authorities for challan validation.

2.3 User Classes and Characteristics

- **General Users**: People who register their vehicles for emergency validation.

- **Hospitals**: Institutions that authenticate patient emergencies.

- **Traffic Authorities**: Organizations responsible for issuing and validating challans.

2.4 Operating Environment

- Web and mobile-based platforms.

- Compatible with Android, iOS, and web browsers.

- Requires internet connectivity for data validation.

2.5 Assumptions and Dependencies

- Users will register their vehicles and hospitals before an emergency.

- Traffic authorities will have access to Vejhaan's verification system.

- Hospital data will be regularly updated and authenticated.

3. Functional Requirements

- **Core Features**:

  - User registration and authentication.

  - Vehicle and hospital registration.

  - Verification of emergency incidents for challan cancellation.

  - Data management and retrieval functionalities.

- **Use Cases**:

  - A user registers a vehicle and associates it with a hospital.

  - The system verifies a medical emergency based on hospital data.

  - Traffic authorities validate challan waivers based on stored records.

- **Input/Output Requirements**:

  - Users input personal, vehicle, and hospital details.

  - The system processes and stores verified data.

  - The output includes challan status updates and verification logs.

- **Error Handling**:
  - Invalid hospital or vehicle registrations will be flagged.
  - System alerts users for incomplete or incorrect data.
  - Data retrieval failures will notify the administrator.

4. Non-Functional Requirements

4.1 Performance Requirements

- The system should validate emergency cases within seconds.
- Response time for challan verification should be minimal.

4.2 Security Requirements

- Data encryption for user, vehicle, and hospital details.
- Secure authentication and access control measures.

4.3 Usability Requirements

- Simple and intuitive interface for users and authorities.
- Mobile-friendly design with accessibility features.

4.4 Scalability

- Supports multiple hospitals and vehicles.
- Can accommodate increased user registrations over time.

4.5 Availability

- The system should be available 24/7 for emergency cases.
- Scheduled maintenance with minimal downtime.

4.6 Compatibility

- Works across major operating systems and web browsers.
- API support for integration with external systems.

5. System Design Constraints

- **Compliance**: Adheres to traffic laws and medical privacy regulations.

- **Hardware Constraints**: Runs on standard web and mobile devices.

- **Technology Stack**: Uses cloud-based storage, secure databases, and scalable server architecture.