Business Requirements Document

PROJECT DETAILS

PROJECT NAME		
Vehicle Tracking System		
CREATOR		
● *Shyam Sunder*	● *Shubham Saurav*	● *Shresth Gupta*
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1. Introduction

This BRD outlines the specific business requirements for a **Public Vehicle Tracking System** designed to enhance **real-time vehicle tracking, passenger convenience, and security.** The system will cater to public vehicles, providing users with information on nearby available transportation and ensuring efficient fleet management.

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2. EXECUTIVE SUMMARY SNAPSHOT

The Vehicle Tracking System aims to provide a comprehensive solution for real-time tracking and management of vehicles. It caters to 4 types of users: administrators, vehicle owners, general users(e.g. students,Profs), and bulk transport users(e.g. Mess Owners, Logistics Staffs). The system enhances efficiency, security, and user convenience through live tracking, detailed vehicle information, and real time notification service.

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3. Business Objectives

A. To **enable real-time tracking** of public vehicles to public and bulk users for accessibility.
B. To **provide proximity-based vehicle discovery** for users.
C. To **enhance security and compliance** by tracking vehicle registration details.
D. To **allow authentication-based access** for different user roles.
E. To **maintain journey history** for vehicle owners.
F. To **provide notifications and alerts to users** (shipment delivered to bulk users, high speed alerts to both driver and passenger, nearby vehicle for saved ones)

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4. Project Scope
Following is the list of goals and deliverables expected out of any basic application made for our purpose.
IN-SCOPE ITEMS
Item 1: **Development, deployment, and maintenance** of a **application**
Item 2: **Real-time location tracking** with average accuracy
Item 3: **Authentication-based access control** for different user roles.
Item 4: **Integration of proximity-based vehicle discovery.**
Optional Item : passenger count tracking and advance booking.

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5. Requirements

5.1 Functional Requirements

I. **Vehicle Tracking:**
   A. Support for **real-time tracking** of public vehicles using **network-based access.**
   B. Option to **anonymize** specific data.
   C. **Historical journey storage** for vehicle owners.

II. **User Features:**
    A. **Proximity-based** vehicle discovery.
    B. **Authentication-only** access for different roles.
III. **Security & Compliance:**
    A. Verification of vehicle owners through **registration details.**
IV. **Alerts & Notifications:**
    A. System must include alerts for **speeding, shipment delivery**

5.2 Non-Functional Requirements

I. **System Availability:** The system should be available **during peak hours** and **handle worst-case load scenarios.**
II. **Scalability:** The platform should be able to **accommodate more users and vehicles** as the service expands (at least 7000 users)
III. **Reliability:** The system should maintain high uptime and ensure **smooth real-time tracking.**
IV. **Data Privacy:** The system must allow **anonymization of user data** as required.
V. **User Experience:** The UI should be **intuitive and user-friendly** for quick adoption.

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6. Stakeholders

A. **Project Owners** (College Admin)
B. **IT & Development Team** (System Admin)
C. **Public Transport Authorities** (Security Officers and Guards)
D. **Vehicle Owners**
E. **End Users** (Passengers & Bulk Users)

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7. Constraints and Assumptions

- The system will be operational within **ISM Campus.**
- All the vehicle owners and users are equipped with Smartphones which contain GPS Location Tracking Feature
- There is good bandwidth of Internet available throughout the campus in working hours of vehicle

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8. Evaluation Criteria

Proposals for system development will be evaluated based on:

- Ability to meet **functional** and non-functional requirements**.**
- **Implementation efficiency** and ease of deployment.
- Scalability and future expansion feasibility**.**
- **User experience and security measures.**
- **Overall cost** and maintenance support quality**.**

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9. Appendix

Glossary	
Abbreviation	*Meaning*
ISM	**Indian School Of Mines Dhanbad**
GPS	**Global Positioning System**
BRD	**Business Requirements Document**
UI	**User Interface**

Conclusion

This BRD defines the core functionalities, objectives, and requirements for the **Public Vehicle Tracking System.** The project aims to enhance **public transportation efficiency, user convenience, and security** while ensuring seamless operations.