**K.R. MANGALAM UNIVERSITY**

**THE COMPLETE WORLD OF EDUCATION**



# BATCH 2024 – 2028

DRIVER MANAGEMENT SYSTEM

SUBMITTED BY :

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1. Introduction :

The Driver Management System is a software solution designed to manage and streamline all operations related to driver information, vehicle assignments, trip scheduling, and performance tracking in a transport or logistics company. The system improves administrative efficiency and reduces manual errors by providing a centralized platform for managing driver-related data.

1. Objective :

* To maintain a centralized database of drivers.
* To assign drivers to vehicles and manage trip schedules.
* To record driver details including license, contact, and experience.
* To ensure regulatory compliance and timely documentation updates.

* To enhance safety by monitoring driver performance and violations.

3. Scope of the Project :

This system is suitable for logistics companies, cab aggregators, delivery services, and public transport agencies. It includes the following modules:

* Driver Registration and Management
* Vehicle Assignment
* Trip Scheduling
* Driver Performance Monitoring
* Report Generation

4.⁠ ⁠System Requirements :

* Hardware Requirements :- ☛ Processor: Intel i5 or above

☛ RAM: Minimum 4 GB

☛ Hard Disk: Minimum 100 GB

* Software Requirements :-

☛ Operating System: Windows/Linux

☛ Programming Language: Java/Python/C#

☛ Database: MySQL/PostgreSQL

☛ IDE: Eclipse/VS Code

☛ Framework (if web-based): Django/ASP.NET/Flask

5.⁠ ⁠System Design :

* ER Diagram :-

Entities: Driver, Vehicle, Trip, Admin

* Relationships:

Driver assigned to Vehicle

Trip associated with Driver and Vehicle

* UML Diagrams

Use Case Diagram

Class Diagram

Sequence Diagram

Activity Diagram

6. ⁠Implementation :

The system was implemented using [Insert

Programming Language and Tools]. It consists of login modules for admin and drivers. Admins can register new drivers, assign them to vehicles, and schedule trips.

• Key Functionalities :-

☛ Add/Edit/Delete Driver

☛ Upload driver documents (license, ID)

☛ Assign drivers to routes/vehicles

☛ Generate daily/monthly reports

☛ Alert for license expiry and violations

7.⁠ ⁠Testing :

Multiple test cases were created for each module:

☛ Validating input fields

☛ Verifying database operations

☛ Load testing for multiple users

☛Security testing (login credentials, data access)

8.⁠ ⁠Results :

The system was successfully tested and deployed in a simulated environment. It showed improvement in operational efficiency and a reduction in manual data entry errors.

9.⁠ ⁠Conclusion :

The Driver Management System provides a reliable, secure, and scalable solution to manage drivers and related operations. It can be further enhanced by integrating GPS tracking, real-time alerts, and a mobile application.

10.⁠ ⁠Future Enhancements :

☛ Integration with GPS and fleet tracking systems

☛ Mobile app for driver check-ins and notifications

☛ Advanced analytics on driver behavior and fuel efficiency

☛ Integration with government databases for license validation