



Faculty of Technology and Engineering Chandubhai S. Patel Institute of Technology Department of Computer Science & Engineering

Project Problem Statement for Project-III

| Project Group ID: CSPIT | C/CSE/B2/ | |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| Student ID: | 23CS095 | 23CS101 |
| Name: | Siroya Keshvi | Vanara Aditi |
| Project Title: | DriveNest | |
| Domain of Project Definition: | Logistics and Transportation Managemer | nt |
| Technology/Methodolog ies to be used in project: | Frontend: Reac.tjs Backend: Node.Js & MongoDB Database: MongoDB REST APIs Git & GitHub for version control Machine Learning for delay prediction | n |
| Project Objectives | To streamline truck and transport oper platform To enable efficient assignment and m To generate analytical reports and sure To enhance communication between a To implement ML models for predict To provide real-time tracking of vehice | onitoring of drivers mmaries for the admin admin and drivers ing route delays |

| Brief Description about project: | The DriveNest is a web-based solution designed to manage and monitor logistics operations efficiently. It includes modules for admin and drivers, allowing the admin to assign trips, track vehicle movement via GPS, and receive updates from drivers in real time. The system aims to reduce manual overhead, improve route planning, and provide insightful reports. An optional machine learning component can be integrated to predict delays based on historical data, enhancing decision-making and delivery reliability. |
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| | Strengths: |
| | Centralized management system |
| | Real-time tracking and updates |
| | Scalable and modular design |
| | Weaknesses: |
| | Initial setup complexity |
| | GPS and ML integration may require additional resources |
| SWOT analysis chart | Dependence on internet connectivity |
| for the Project | Opportunities: |
| | Can be extended for large logistics companies |
| | Potential for mobile app integration |
| | Scope for advanced analytics and automation |
| | Threats: |
| | Data security and privacy risks |
| | Integration challenges with third-party APIs |
| | Competition from existing commercial solutions |
| | Admin dashboard with trip assignment and driver management Driver 1.1. County 1.4. The state of the sta |
| | Driver module for route details and status updates |
| | GPS-based vehicle tracking system |
| Project Deliverables | Functional backend with database integration |
| | Report generation and analytics module |
| | Source code hosted on GitHub |
| | Project documentation and user manual |



Student 1 Sign Student 2 Sign

Assessment Rubric to evaluate Difficulty level of Project:

| Criteria | Marks |
|--------------------------------------|-------|
| Scope and Complexity | |
| Technical Challenges | |
| Resource Requirements | |
| Quality level of Gantt Chart | |
| Quality level of SWOT analysis chart | |
| Innovation and Creativity | |
| Total (Out of 30) | |

Assessment Rubric to evaluate quality of Project Problem Statement:

| Criteria | Marks |
|--------------------------------------|-------|
| Clarity of Problem Statement | |
| Relevance to Project Objectives | |
| Clarity of Language and Presentation | |
| Overall Impression | |
| Total (Out of 20) | |

| Mientor's Comments | s Comments: | 5 | Mentor's |
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Mentor's Sign:

HOD's Sign with Comments: