Aadil Nazir Shaikh (012111269) Final Project Proposal

Project Title - Trucking Company Profitability Management System

Target Audience: Logistics professionals, particularly trucking companies across all domains.

Problem Statement: Many trucking companies struggle because they still rely on paperwork instead of using digital tools. This makes it hard for them to know exactly how much money each truck is making. There's a lot of factors to consider, like how far the trucks travel, how much it costs to maintain them, which routes they take, which models of trucks are more expensive to run, the wear and tears for each model is also a factor to consider and how much drivers charge. Without keeping track of all this information, it's tough for companies to plan ahead and make as much profit as they could.

Proposed Solution: We want to create a system called the Trucking Company Profitability Management System. It will help trucking companies see exactly how much money each truck is making. At first, the system will focus on creating reports that show how much money each truck is spending and earning. Later on, we'll add features that analyze which routes are most profitable and how different drivers affect profits. With this system, trucking companies can make smarter decisions and find ways to make more money.

Key Features:

1. **Truck-Specific Reports:** Detailed breakdown of expenses and profits for each truck, considering factors such as mileage, service expenses, and operational costs.
2. **Data Visualization (Bonus):** Visual representation of key metrics through charts and graphs for easy interpretation and decision-making.
3. **Forecasting Tools (Bonus):** Predictive analytics capabilities to forecast future profitability based on historical trends and current operational data.
4. **Route Analysis (Bonus):** Identification of the most profitable routes for each truck based on historical data and performance metrics.
5. **Driver Rate Integration:** Incorporation of driver rates to calculate the overall profitability of each truck, considering variations in driver expenses.

Technology Stack:

- **Frontend:** React
- **Backend:** .NET Core or Java
- **Database:** MySQL / MongoDB
- **Web Application:** The project will be developed as a web application.