NeuroFleetX: Analysis Document

# 📊 **Analysis Document**

The analysis identifies the problems, objectives, and feasibility of NeuroFleetX.

## Problem Analysis:

- Cities face heavy traffic congestion due to urbanization.  
- Fleet operations (taxis, buses) are inefficient and costly.  
- High CO2 emissions from poor mobility management.  
- Lack of real-time adaptive systems for urban traffic control.

## Requirement Analysis:

- Functional: Traffic forecasting, fleet optimization, dashboard visualization, IoT integration.  
- Non-Functional: Scalability, real-time response, reliability, security, maintainability.

## Feasibility Analysis:

- Technical Feasibility: Java ecosystem, AI/ML libraries, cloud deployment.  
- Operational Feasibility: Usable by city planners, fleet managers, commuters.  
- Economic Feasibility: Cost-effective cloud deployment and scalable architecture.

# 📖 **Work Done Till Now**

The following work has been completed so far:  
- Created the overall project plan and defined specifications.  
- Designed the dashboard layout with sidebar, header, and placeholder sections.  
- Implemented initial React.js frontend structure.  
- Established placeholder components for Traffic Overview, Fleet Optimization, Reports, and Live Updates.  
- Prepared initial documentation (Project Summary, Problem, Solution, Approach, Tech Stack).  
- Set up test cases for dashboard validation and navigation testing.

ScreenShots:



