Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date: 31 January 2025

Team ID: LTVIP2025TMID36124

Project Name: TrafficTelligence: Advanced Traffic Volume Estimation With Machine Learning

Maximum Marks: 4 Marks

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Data Input	Users can upload traffic datasets (CSV or real-time API) via the interface.
FR-2	Preprocessing Module	The system cleans and prepares the data for machine learning input.
FR-3	Prediction Engine	The trained model predicts traffic volume based on input conditions.
FR-4	Output Display	Predicted traffic count is displayed in graphs and charts.
FR-5	Report Export	Users can download traffic reports as images, CSV, or PDFs.

Non-functional Requirements:

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	Interface is user-friendly and responsive across devices.
NFR-2	Security	Uploaded data is temporarily stored and protected during processing.
NFR-3	Reliability	Model is trained and validated for accuracy using

		diverse datasets.
NFR-4	Performance	Predictions are generated in near real-time.
NFR-5	Availability	The application is accessible 24/7 via the web.
NFR-6	Scalability	System can scale to support additional data types, cities, or sensors.