

REQUIREMENT ANALYSIS

Functional Requirements

Date	28 JUNE 2025
Team ID	LTVIP2025TMID59766
Project Name	TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	4 Marks

Functional Requirements:

Requirement ID	Functional Requirement
FR-1	Ingest historical traffic data
FR-2	Capture real-time data from sensors, cameras, APIs
FR-3	Preprocess and clean data
FR-4	Apply machine learning models for traffic prediction
FR-5	Visualize traffic data on dashboards/maps
FR-6	Generate alerts for high congestion
FR-7	Support API for external applications
FR-8	Store predictions and historical data

Non Functional Requirements:

Requirement ID	Non-Functional Requirement
NFR-1	High availability and scalability
NFR-2	Real-time response with minimal latency
NFR-3	Data privacy and security
NFR-4	User-friendly and responsive UI
NFR-5	Integration with existing city management systems
NFR-6	Reliable data backup and disaster recovery