

Project Design Phase-II: Solution Requirements

Date: 21 July 2025

Team ID: LTVIP2025TMID45340

Project Name: Traffic Volume Estimation

Maximum Marks: 4 Marks

♦ Functional Requirements

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|--|
| FR-1 | User Registration | Registration through Form Registration through Gmail Registration through LinkedIn |
| FR-2 | User Confirmation | Confirmation via Email Confirmation via OTP |
| FR-3 | Traffic Volume Prediction | Enter route details and receive volume estimate View historical traffic trends |
| FR-4 | Dashboard & Alerts | Real-time traffic volume dashboard Congestion alert notifications for authorities |

♦ Non-functional Requirements

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | The system should provide a user-friendly interface for all users, ensuring ease of navigation and interaction. |

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|-------------------|---------------------|--|
| NFR -2 | Security | User data must be securely stored; communication must be encrypted; proper authentication and authorization must be enforced. |
| NFR -3 | Reliability | The system should provide consistent predictions and availability with minimal downtime. |
| NFR -4 | Performance | The system should provide predictions within 2 seconds of user request. |
| NFR -5 | Availability | The service should be accessible at least 99% of the time, supporting 24/7 operations. |
| NFR -6 | Scalability | The system should support increasing numbers of users and data sources without performance degradation. |