**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID35292 |
| Project Name | **TrafficTelligence**: advanced traffic volume estimation with machine learning |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration through Form  Registration through Gmail |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 | Traffic Volume Prediction | Input form for traffic parameters  Traffic volume predicted using ML model |
| FR-4 | Dashboard & Results | Display prediction result on user interface  Show date,time and input summary which the user entered for prediction along with the results |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The system has a simple, intuitive interface for web users. |
| NFR-2 | **Security** | The user data stored in the mongodb securely;  OTP verification ensures secure access. |
| NFR-3 | **Reliability** | The system should provide consistent and accurate predictions using trained ML models. |
| NFR-4 | **Performance** | Traffic volume predictions should be generated within 2-3 seconds after form submission. |
| NFR-5 | **Availability** | Since it is a localhost application, the user will access through his system. |
| NFR-6 | **Scalability** | The solution should support integration with additional data sources and city-wide expansion. |