**Project Design Phase**

**Proposed Solution Template**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID35292 |
| Project Name | **TrafficTelligence**: advanced traffic volume estimation with machine learning |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in the proposed solution template.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Inaccurate, delayed, and non-scalable traffic volume estimation methods result in poor traffic management and increased congestion in urban areas. |
|  | Idea / Solution description | A machine learning-based system that predicts traffic volume in real time using inputs like weather, time, GPS, and historical traffic data. It provides authorities with accurate forecasts via dashboards and APIs |
|  | Novelty / Uniqueness | Unlike traditional systems, this solution integrates real-time data sources and predictive ML models (e.g., XGBoost, LSTM), offering proactive rather than reactive traffic management. |
|  | Social Impact / Customer Satisfaction | Reduces travel time, road congestion, and fuel consumption. Improves commuter experience and supports better emergency response planning. |
|  | Business Model (Revenue Model) | Freemium model for public agencies with premium features for commercial users like logistics companies. Revenue through licensing, data access APIs, and consulting. |
|  | Scalability of the Solution | Freemium model for public agencies with premium features for commercial users like logistics companies. Revenue through licensing, data access APIs, and consulting. |