

## Project Design Phase

### Proposed Solution Template

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|---------------|--|
| Date          | 24 June 2025   |
| Team ID       | LTVIP2025TMID35493   |
| Project Name  | TrafficTelligence : Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks | 2 Marks  |

#### Proposed Solution Template:

| S.No. | Parameter                                | Description   |
|-------|--|---|
| 1.    | Problem Statement (Problem to be solved) | Urban areas face increasing traffic congestion, leading to delays, pollution, and stress. There is a need for intelligent, real-time traffic solutions that guide commuters efficiently.                        |
| 2.    | Idea / Solution description              | TrafficTelligence is a smart traffic management system that uses machine learning and real-time data to predict traffic congestion, suggest optimized travel routes, and visualize trends via a user dashboard. |
| 3.    | Novelty / Uniqueness                     | The solution integrates real-time traffic APIs with AI-based route prediction and congestion forecasting. It offers personalized routing and visual analytics in one platform, unlike typical navigation apps.  |
| 4.    | Social Impact / Customer Satisfaction    | Reduces commute time, enhances road safety, and lowers fuel consumption and emissions. Citizens get timely, accurate traffic guidance, improving their quality of life.   |
| 5.    | Business Model (Revenue Model)           | Freemium model: Free for individuals; subscription-based access for government agencies, city planners, and logistics firms. Revenue from analytics dashboards and API access.                                  |
| 6.    | Scalability of the Solution              | Easily scalable to multiple cities by adapting to different traffic data sources. Can integrate IoT sensors, CCTV inputs, and cloud-based services for large-scale deployment.                                  |