**Project Design Phase**

**Solution Architecture**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID40771 |
| Project Name | Traffictelligence |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

* Find the best tech solution to solve existing business problems.
* Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
* Define features, development phases, and solution requirements.
* Provide specifications according to which the solution is defined, managed, and delivered.

**Example - Solution Architecture Diagram:**

**Figure 1: Architecture and data flow of the Traffic Volume Estimation System**

**- User Interface (HTML/CSS) → Input Data (Weather, Time, Holiday) → Flask**

**Backend → Preprocessing (ColumnTransformer, Scaler) → Machine Learning**

**Model (RandomForestRegressor) → Output (Traffic Volume) → Display on Web Page**

