**Project Development Phase**

**Model Performance Test**

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| Date | 16 July 19, 2025 |
| Team ID | LTVIP2025TMID44001 |
| Project Name | TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks |  |

**Model Performance Testing:**

Project team shall fill the following information in model performance testing template.

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| **S.No.** | **Parameter** | **Screenshot / Values** |
|  | Data Rendered | CSV File Loaded: traffic volume - traffic volume.csv  - Shape: (48161, 9)  -Columns: ['date', 'temp', 'rain', 'snow', 'weather', 'holiday', 'traffic\_volume'] |
|  | Data Preprocessing | -Missing values handled using .fillna()  -Label Encoding: weather, holiday  -Date features extracted: day, month, year  -Feature scaling using StandardScaler |
| 3. | Utilization of Data Filters | -Filtered irrelevant columns  - Filtered out null rows before modeling  -Derived filters: by holiday, month, weather |
| 4. | Dashboard design | No of Visualizations -No. of Visualizations: **6**  - Heatmap for correlation  - Traffic volume vs Temp  - Weather condition bar chart  - Holiday impact line plot  - Monthly traffic trend  - Actual vs Predicted |
| 5. | Report Design | No of Visualizations -6 |