**Project Development Phase**

**Model Performance Test**

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| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID59638 |
| Project Name | TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks | 10 Marks |

**Model Performance Testing:**

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

| **S.No.** | **Parameter** | **Values** | **Screenshot** |
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| 1 | **Model Summary** | - **Model Type**: RandomForestRegressor  - **Input Features**: holiday, temp, rain, snow, clouds, weather  - **Target Variable**: traffic\_volume  - **Preprocessing**: OneHotEncoding for categorical variables, MinMaxScaler for numerical values  - **Train-Test Split**: 80% - 20% |  |
| 2 | **Accuracy** | - **Training Accuracy (R² Score)**: 0.92  - **Validation Accuracy (R² Score)**: 0.86 |  |