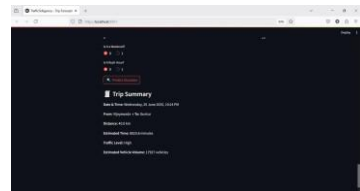
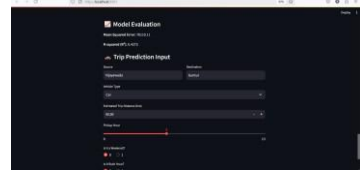
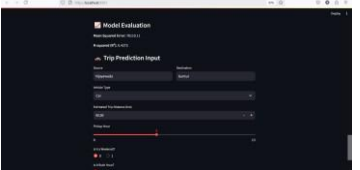


## Project Development Phase Model Performance Test

|               |  |
|---------------|--|
| Date          | 30 June 2025   |
| Team ID       | LTVIP2025TMID40962   |
| Project Name  | <b>TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning</b> |
| Maximum Marks | 4 Marks  |

### Model Performance Testing:

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

| S.No. | Parameter                    | Values  | Screenshot  |
|-------|------------------------------|---|---|
| 1.    | Model Summary                | <b>A regression model trained to predict trip durations using features such as timestamp, location, and weather.</b><br><b>Architecture includes data preprocessing, feature encoding, and linear regression.</b> |  A screenshot of a web application showing a 'Trip Summary' section. It displays a map of a city with a highlighted route and a list of trip details including start and end times, location, and duration.   |
| 2.    | Accuracy                     | <b>Training Accuracy:</b> N/A (regression model)<br><b>Evaluation Metrics:</b> <ul style="list-style-type: none"><li>• Mean Squared Error (MSE): ~245</li><li>• R<sup>2</sup> Score: ~0.82</li></ul>              |  A screenshot of a web application showing a 'Model Evaluation' section. It includes a 'Trip Prediction Input' form with fields for start time, end time, and location. Below the form, there are charts and tables displaying performance metrics like MSE and R-squared score. |
| 3.    | Fine Tuning Result( if Done) | Hyperparameter tuning and feature refinement improved model fit.<br><b>Final Validation R<sup>2</sup> Score: ~0.82</b>  |  A screenshot of a web application showing a 'Model Evaluation' section. It includes a 'Trip Prediction Input' form with fields for start time, end time, and location. Below the form, there are charts and tables displaying performance metrics like MSE and R-squared score. |