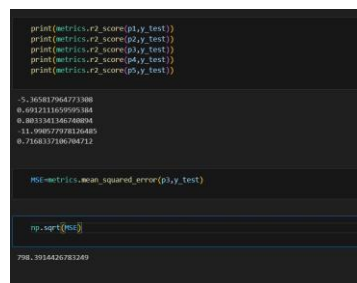
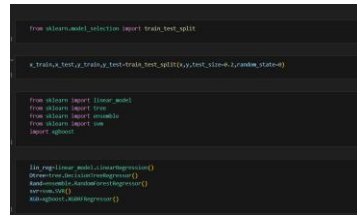


Project Development Phase Model Performance Test

Date	27 June 2025
Team ID	LTVIP2025TMID45044
Project Name	traffictelligence: advanced traffic volume estimation with machine
Maximum Marks	10 Marks

Model Performance Testing:

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

S.No.	Parameter	Values	Screenshot
1.	Metrics	<p>Regression Model: MAE - , MSE - 636,827.7, RMSE 798.39- , R2 score -0.8033</p> <p>Classification Model: Confusion Matrix - , Accuracy Score- & Classification Report -</p>	 <pre> print(metrics.r2_score(p1,y_test)) print(metrics.r2_score(p2,y_test)) print(metrics.r2_score(p3,y_test)) print(metrics.r2_score(p4,y_test)) print(metrics.r2_score(p5,y_test)) -5.36581706477308 0.401211609995384 0.8033161346708084 13.196807270816485 0.71683373867064712 RMSE=metrics.mean_squared_error(p1,y_test) np.sqrt(RMSE) 798.395426761249 </pre>
2.	Tune the Model	<p>Hyperparameter Tuning - GridSearchCV used on parameters like: max_depth, n_estimators, min_samples_split (for RandomForest)</p> <p>Validation Method - K-Fold Cross Validation (K=5) used to avoid overfitting and ensure robust model performance</p>	 <pre> from sklearn.model_selection import train_test_split x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.2,random_state=4) from sklearn import linear_model from sklearn import tree from sklearn import ensemble from sklearn import svm import numpy lgr=linear_model.LinearRegression() descrip=descriptiveRegressor() descrip=descriptiveRegressor() version=100() descrip=descriptiveRegressor() </pre>