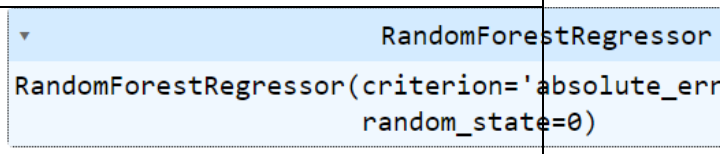
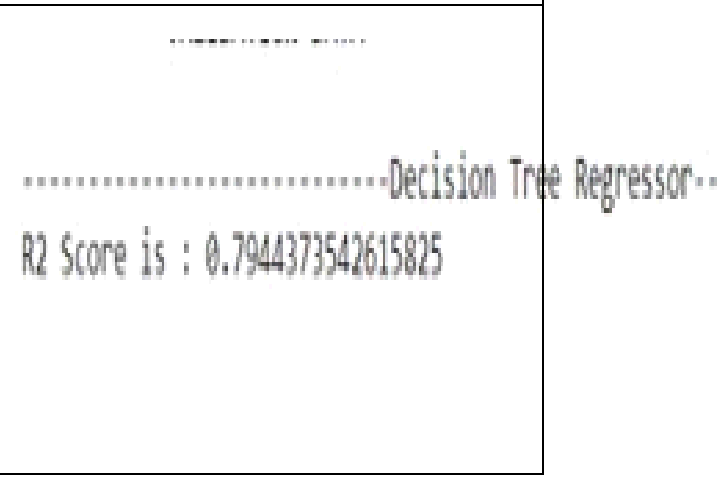
Model Development Phase Template

Date	16 july 2024
Team ID	740771
Project Title	Car Performance Prediction Using ML
Maximum Marks	4 Marks

Model	Classification Report	Accuracy
Random forest classifier		
Decision Tree classifier		

Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include classification reports, accuracy, and confusion matrices for multiple models, presented through respective screenshots.

Initial Model Training Code:

```
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size
```

Model Validation and Evaluation Report:

Extra Tree classifier	`from sklearn.ensemble import ExtraTreesRegressor`
	`et_regressor = ExtraTreesRegressor(n_estimators=100, max_depth=10, random_state=23)`
	`et_regressor.fit(X_train, y_train)`
	ExtraTreesRegressor
	ExtraTreesRegressor(max_depth=10, random_state=23)
	`print("R2 Score :{}".format(et_regressor.score(X_test,y_test)))`
	R2 Score :0.898921313456616 4
		----------Extra Trees Regressc
		R2 Score is : 0.8937335681153357