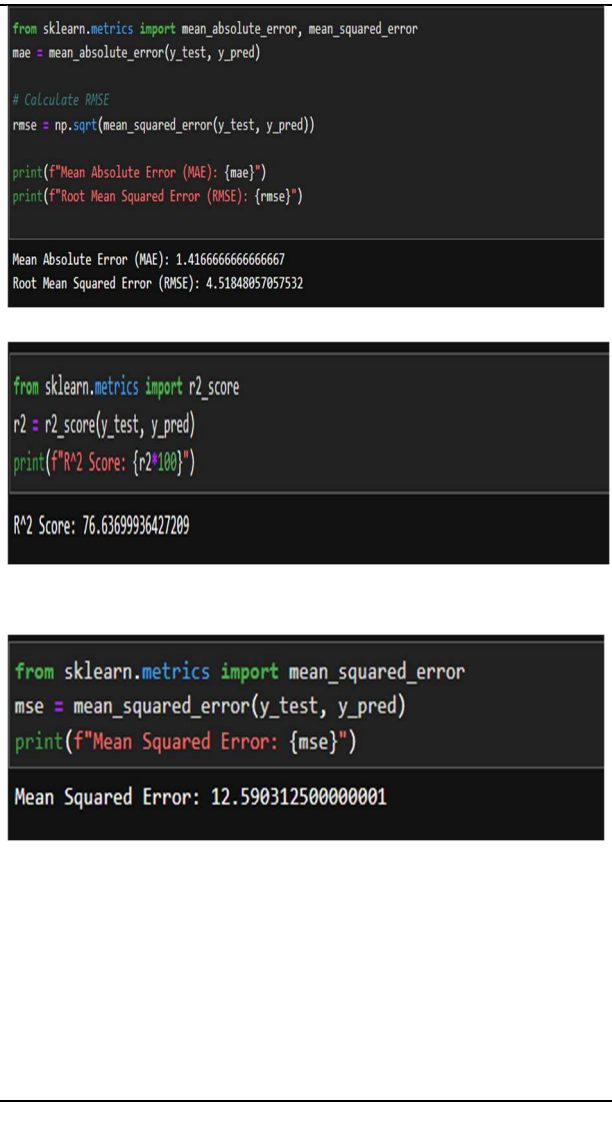
Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	Team-591663
Project Name	AI-Driven Optimization Of 5G Resource Allocation For Network Efficiency
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	**Regression Model:** MAE - 1.4166666666666667 , MSE -12.590312500000001 , RMSE -4.51848057057532 , R2 score - 76.63699936427209	

```
from sklearn.metrics import mean_absolute_error, mean_squared_error
mae = mean_absolute_error(y_test, y_pred)

# Calculate RMSE
rmse = np.sqrt(mean_squared_error(y_test, y_pred))

print(f"Mean Absolute Error (MAE): {mae}")
print(f"Root Mean Squared Error (RMSE): {rmse}")
```

```
Mean Absolute Error (MAE): 1.4166666666666667
Root Mean Squared Error (RMSE): 4.51848057057532
```

```
from sklearn.metrics import r2_score
r2 = r2_score(y_test, y_pred)
print(f"R^2 Score: {r2*100}")
```

```
R^2 Score: 76.63699936427209
```

```
from sklearn.metrics import mean_squared_error
mse = mean_squared_error(y_test, y_pred)
print(f"Mean Squared Error: {mse}")
```

```
Mean Squared Error: 12.590312500000001
```

2.	Tune the Model	Validation Method – Cross-validation scores: [0.59363784 0.92359412 0.99894054 0.99996154 0.92466385] , Mean cross-validation score: 0.8881595755547528