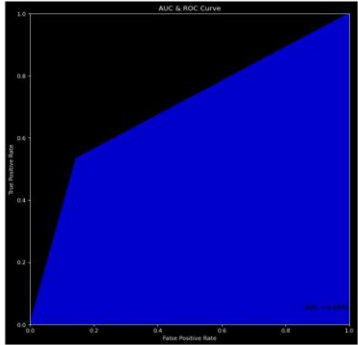
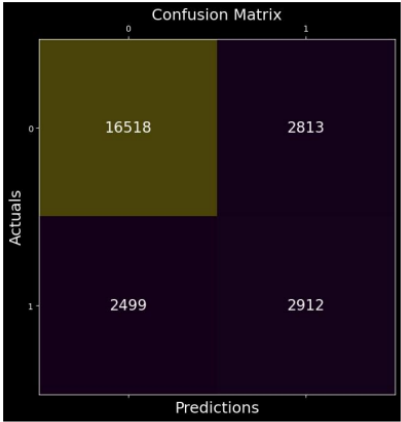


## Project Development Phase Model Performance Test

Date	6 November 2023
Team ID	Team-592514
Project Name	Machine Learning Approach for Predicting the Rainfall
Maximum Marks	10 Marks

### Model Performance Testing:

S.No.	Parameter	Values	Screenshot
1.	Metrics	<p><b>Regression Model:</b></p> <p><i>R2 score</i>- 0.694 The model explains approximately 69.4% of the variance in the target variable.</p> <p><i>ROC-AUC curve</i> - For the Decision Tree model it shows that the model has an AUC of 0.694</p> <p><b>Classification Model:</b></p> <p><i>Confusion Matrix</i> – [[16518 2813] [ 2499 2912]]</p> <p><i>Accuracy Score</i>- 0.7849810039608762 Which shows that the model correctly predicted 78.5% of the cases.</p> <p><i>Classification Report</i> – precision recall f1-score support 0 0.87 0.85 0.86 19331 1 0.51 0.54 0.52 5411 accuracy 0.78 24742 macro avg 0.69 0.70 0.69 24742 weighted avg 0.79 0.78 0.79 24742</p> <p>The model is slightly better at predicting positive cases (0.87 precision and 0.85 recall) than negative cases (0.51 precision and 0.54 recall). This is likely because there are more positive cases in the dataset than negative cases.</p>	  <pre> Accuracy: 0.7849810039608762 Precision: 0.5080119739390738 Recall: 0.5331731657734246 importF1-score: 0.5202885482416592 pickle AUC: 0.6943192402763972 # Assuming you have a Decision Tree model </pre>
2.	Tune the Model	Hyperparameter Tuning - none Validation Method - none	