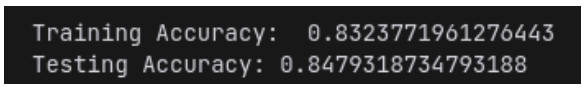
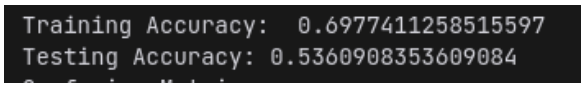
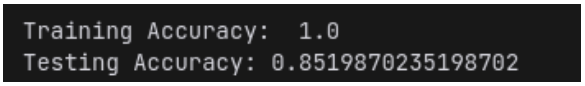
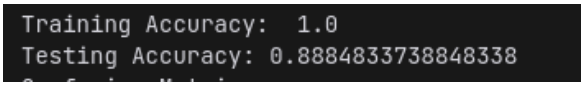
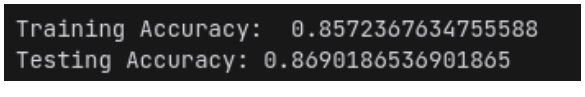
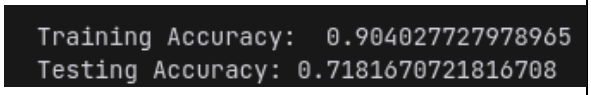
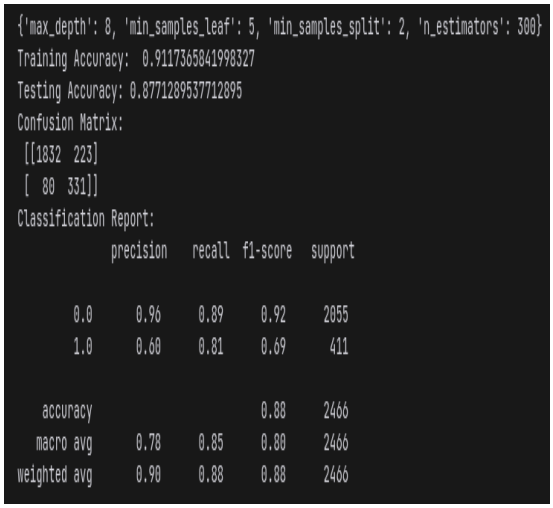
Project Development Phase
Model Performance Test

Date	08 November 2023
Team ID	592465
Project Name	Project - Online Shoppers Intention
Maximum Marks	10 Marks

Model Performance Testing:

S.No.	Parameter	Values	Screenshot
1.	Accuracy score, classification report , confusion matrix	**Logistic Regression Model:** Training Accuracy: 0.8323771961276443 Testing Accuracy: 0.8479318734793188	
		GuassianNB Model: Training Accuracy: 0.6977411258515597 Testing Accuracy: 0.5360908353609084	
		Decision Tree Classifier Model: Training Accuracy: 1.0 Testing Accuracy: 0.8519870235198702	
		Random Forest Classifier: Training Accuracy: 1.0 Testing Accuracy: 0.8884833738848338 Confusion Matrix: [[1899 156] [119 292]] Classification Report: precision recall f1-score support 0.0 0.94 0.92 0.93 2055 1.0 0.65 0.71 0.68 411 accuracy 0.89 2466 macro avg 0.80 0.82 0.81 2466 weighted avg 0.89 0.89 0.89 2466	
		Support Vector Classifier Model: Training Accuracy: 0.8572367634755588 Testing Accuracy: 0.8690186536901865	
		KNN Classifier: Training Accuracy: 0.904027727978965 Testing Accuracy: 0.7181670721816708	

		Random Forest Classifer - HyperParameter Tuned: {'max_depth': 8, 'min_samples_leaf': 5, 'min_samples_split': 2, 'n_estimators': 300} Training Accuracy: 0.9117365841998327 T esting Accuracy: 0.8771289537712895 Confusion Matrix: [[1832 223] [80 331]] Classification Report: precision recall f1-score support 0.0 0.96 0.89 0.92 2055 1.0 0.60 0.81 0.69 411 accuracy 0.88 2466 macro avg 0.78 0.85 0.80 2466 weighted avg 0.90 0.88 0.88 2466	
2	**Classification Report**	**Validation** – The no of wrong classification's compared to correct predictions make it a good model to predict the user intention to shop.	**Hence the model is valid**.