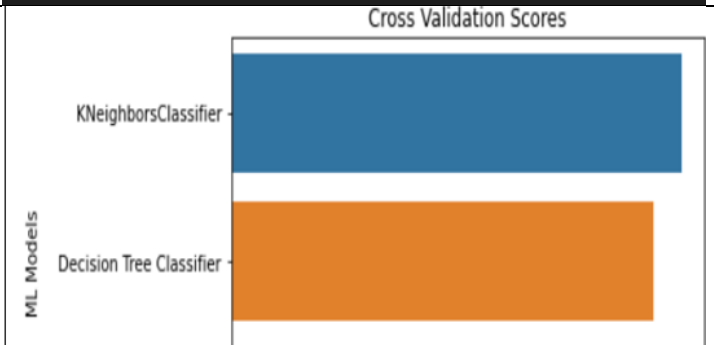


Project Development Phase Model Performance Test

Date	15 NOvember 2022
Team ID	PNT2022TMID52685
Project Name	Developing a Flight Delay Prediction Model Using Machine Learning
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	Classification Model: Ensemble Model(Voting Classifier)-KNN(K-Nearest Neighbor, Decision Tree, GNB model) Confusion Matrix , Accuray Score- 93% & Classification Report	<pre> Confusion matrix [[3151 218] [36 240]] Classification report precision recall f1-score support 0 0.99 0.94 0.96 3369 1 0.52 0.87 0.65 276 accuracy 0.93 3645 macro avg 0.76 0.90 0.81 3645 weighted avg 0.95 0.93 0.94 3645 Accuracy score 0.9303155006858711 </pre>
2.	Tune the Model	Hyperparameter Tuning – Grid SearchCV, Finding best estimators for each algorithm in ensemble model Validation Method – Cross Validation	 <p>The screenshot shows a bar chart titled 'Cross Validation Scores'. The y-axis is labeled 'ML Models' and lists two models: 'KNeighborsClassifier' and 'Decision Tree Classifier'. The x-axis represents the cross-validation score. The 'KNeighborsClassifier' bar is blue and reaches a value of approximately 0.93. The 'Decision Tree Classifier' bar is orange and reaches a value of approximately 0.81.</p>

			<div>Fitting 10 folds for each of 40 candidates, totalling 400 fits 94.58428680396644</div> <div>Fitting 10 folds for each of 250 candidates, totalling 2500 fits 88.55835240274601</div> <div>Fitting 10 folds for each of 54 candidates, totalling 540 fits 94.49885583524026</div>
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