

**Project Development Phase
Model Performance Test**

Date	30 October 2023
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Project Name	Airline Review Classification Using Machine Learning

Metrics for classification model(KNN):

Confusion matrix: $\begin{bmatrix} 2987 & 77 \\ 87 & 1484 \end{bmatrix}$

Accuracy Score: 96.46

Screenshots:

Confusion Matrix:

$$\begin{bmatrix} 2987 & 77 \\ 87 & 1484 \end{bmatrix}$$

Accuracy Score: 0.9646170442286948

Classification Report:

	precision	recall	f1-score	support
0	0.97	0.97	0.97	3064
1	0.95	0.94	0.95	1571
accuracy			0.96	4635
macro avg	0.96	0.96	0.96	4635
weighted avg	0.96	0.96	0.96	4635

Hyperparameter Tuning and Validation Method

Best Hyperparameters: {'n_neighbors': 11, 'p': 1}
Tuned KNN Model Accuracy: 0.9646170442286948