

Project Development Phase Model Performance Test

Date	
Team ID	LTVIP2026TMIDS40243
Project Name	Online Payments Fraud Detection
Maximum Marks	

Model Performance Testing			
S.No.	Parameter	Values	Screenshot
1.	Model Summary	Decision Tree: 98.14%	Decision Tree: 98.14%, Random Forest: 99.97%
2.	Accuracy	Training Accuracy: 98.14% Validation Method: Test Train	Decision Tree: 98.14% Random Forest: 99.97%

```

PS C:\Users\HP\OneDrive\Desktop\online_payments_fraud_detection> python training/model_training.py
>>
Data prepared for training
X shape: (6362620, 11)
y shape: (6362620,)
Train-test split completed

Decision Tree Results
Accuracy: 0.981414102995307

Confusion Matrix:
[[1247242  23639]
 [    12   1631]]

Classification Report:
              precision    recall  f1-score   support

     0       1.00      0.98      0.99      1270881
     1       0.06      0.99      0.12        1643

 accuracy      0.98
 macro avg     0.53      0.99      0.56      1272524

Random Forest Results
Accuracy: 0.9996998091980976

Confusion Matrix:
[[1270851    30]
 [   352   1291]]

Classification Report:
              precision    recall  f1-score   support

     0       1.00      1.00      1.00      1270881
     1       0.98      0.79      0.87        1643

 accuracy      0.99
 macro avg     0.99      0.89      0.94      1272524
 weighted avg   1.00      1.00      1.00      1272524
  
```