

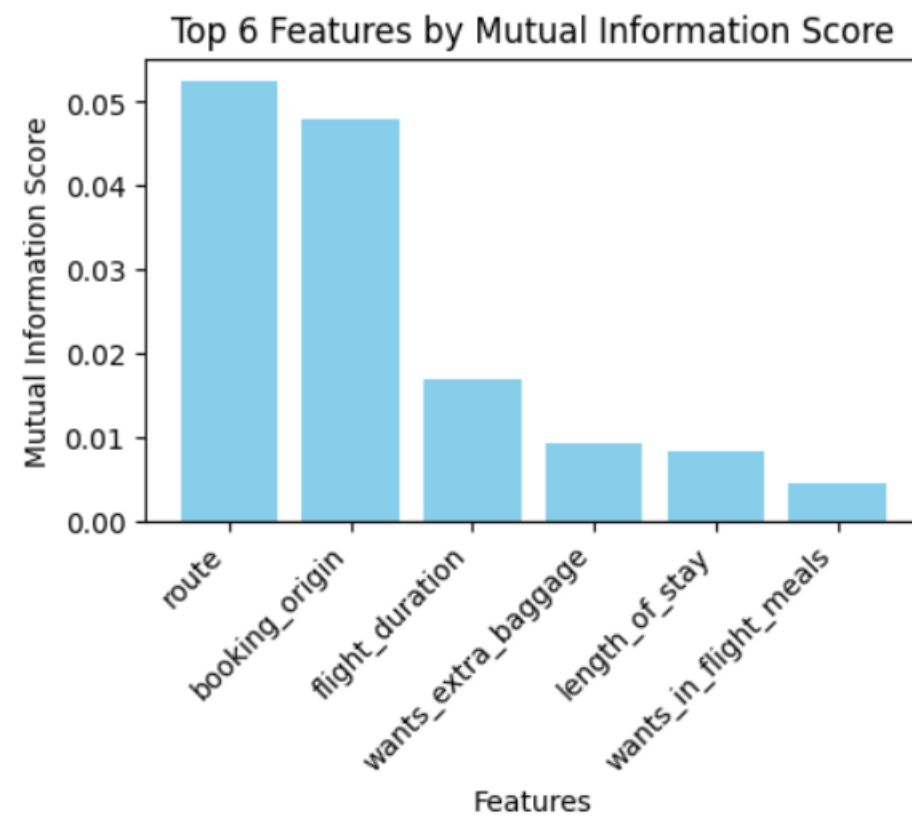
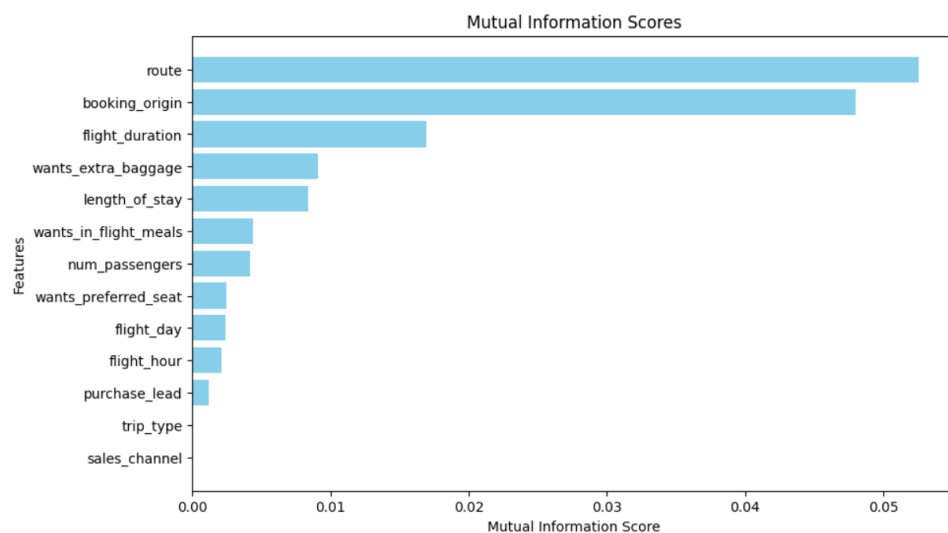


Machine Learning Model

Presented By

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RESULTS



Model with the highest Accuracy and AUC Score on Cross Validation Data: Random Forest Classifier with all Features

```
X= df.drop('booking_complete',axis=1)

X = pd.get_dummies(X)
X= scale(X)
y= df.booking_complete

X_train,X_val,y_train,y_val= dataset(X,y)

forest_model= RandomForestClassifier(random_state=1)
forest_model.fit(X_train, y_train)
preds= forest_model.predict(X_val)

print('ACCURACY: ',accuracy_score(y_val,preds)*100)
print('AUC score: ',roc_auc_score(y_val,preds))
```

ACCURACY: 84.84
AUC score: 0.5527766076821664

Test Data Accuracy and AUC Score based on the most efficient model

```
X= df.drop('booking_complete',axis=1)

X = pd.get_dummies(X)
X= scale(X)
y= df.booking_complete

train_full_X,test_X, train_full_y, test_y = train_test_split(X, y,test_size=0.2,random_state = 0)

forest_model= RandomForestClassifier(random_state=1)
forest_model.fit(train_full_X, train_full_y)
preds= forest_model.predict(test_X)

print('ACCURACY: ',accuracy_score(test_y,preds)*100)
print('AUC score: ',roc_auc_score(test_y,preds))
```

ACCURACY: 85.37
AUC score: 0.5678474780954598