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import pandas as pd
import numpy as np
from sklearn.model_selection import train_test_split
from sklearn.preprocessing import StandardScaler
from sklearn.linear_model import LogisticRegression
from sklearn.metrics import confusion_matrix

from google.colab import drive
drive.mount('/content/drive')

Mounted at /content/drive

file_path='/content/drive/My Drive/machine learning/suv_data_ml.csv'
df=pd.read_csv(file_path)
print(df.head())

      User ID  Gender  Age  EstimatedSalary  Purchased
0  15624510    Male   19          19000          0
1  15810944    Male   35          20000          0
2  15668575  Female   26          43000          0
3  15603246  Female   27          57000          0
4  15804002    Male   19          76000          0

X = df[['Age', 'EstimatedSalary']]
y = df['Purchased']

X_train, X_test, y_train, y_test = train_test_split(X, y,
test_size=0.2, random_state=0)

scaler = StandardScaler()
X_train_scaled = scaler.fit_transform(X_train)
X_test_scaled = scaler.transform(X_test)

model = LogisticRegression()

LogisticRegression(random_state=0)
LogisticRegression(random_state=0)

model.fit(X_train_scaled, y_train)
y_pred = model.predict(X_test_scaled)

cm = confusion_matrix(y_test, y_pred)
tn, fp, fn, tp = cm.ravel()
print(cm)
print("TN:", tn)
print("FP:", fp)
print("FN:", fn)
print("TP:", tp)

[[57  1]
 [ 5 17]]

```

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TN: 57  
FP: 1  
FN: 5  
TP: 17
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print("Test Accuracy:", model.score(X_test_scaled, y_test))  
print("Training Accuracy:", model.score(X_train_scaled, y_train))
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Test Accuracy: 0.925  
Training Accuracy: 0.821875
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