# Step 1: Install dependencies

!pip install scikit-learn pandas

# Step 2: Import libraries

import pandas as pd

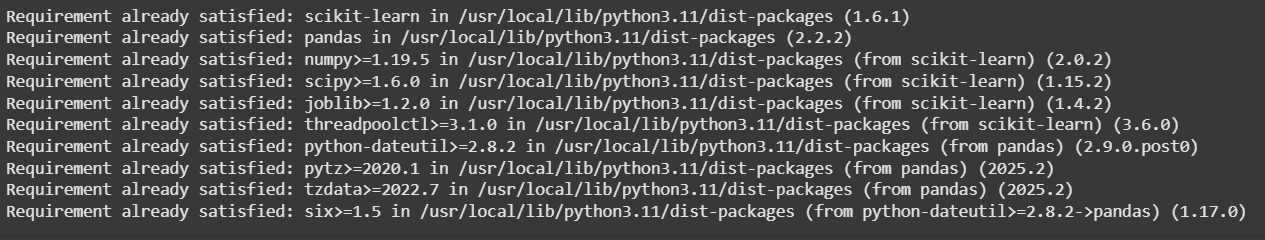
from sklearn.model\_selection import train\_test\_split

from sklearn.ensemble import RandomForestClassifier

from sklearn.metrics import accuracy\_score

import joblib

from google.colab import files



# Step 3: Load dataset and train model

url = 'https://raw.githubusercontent.com/jbrownlee/Datasets/master/pima-indians-diabetes.data.csv'

columns = ['Pregnancies', 'Glucose', 'BloodPressure', 'SkinThickness', 'Insulin',

'BMI', 'DiabetesPedigreeFunction', 'Age', 'Outcome']

df = pd.read\_csv(url, names=columns)

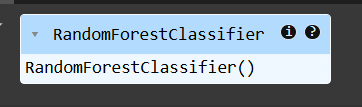
X = df.drop('Outcome', axis=1)

y = df['Outcome']

X\_train, X\_test, y\_train, y\_test = train\_test\_split(X, y, test\_size=0.2, random\_state=42)

model = RandomForestClassifier()

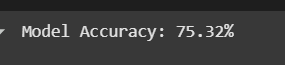
model.fit(X\_train, y\_train)



# Step 4: Evaluate model

accuracy = accuracy\_score(y\_test, model.predict(X\_test))

print(f"Model Accuracy: {accuracy \* 100:.2f}%")



# Step 5: Save model

joblib.dump(model, 'diabetes\_model.pkl')

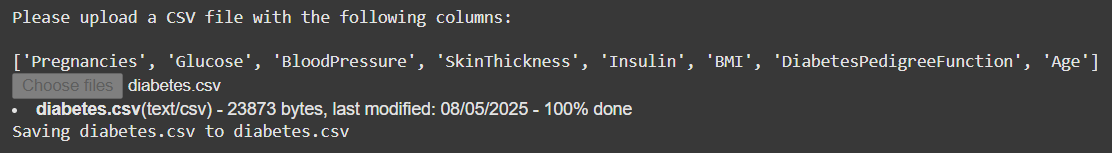


# Step 6: Upload user CSV file

print("\nPlease upload a CSV file with the following columns:\n")

print(columns[:-1]) # Show required columns (excluding 'Outcome')

uploaded = files.upload()

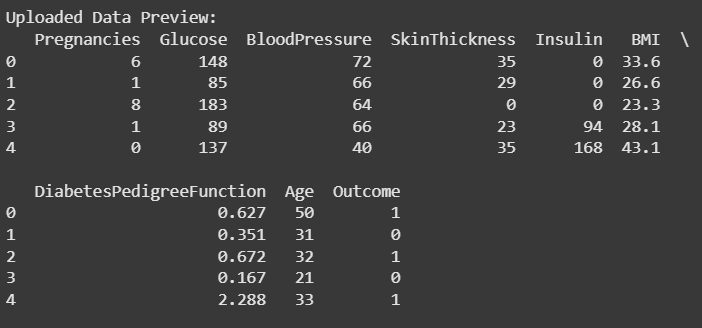


# Step 7: Load uploaded file

for filename in uploaded.keys():

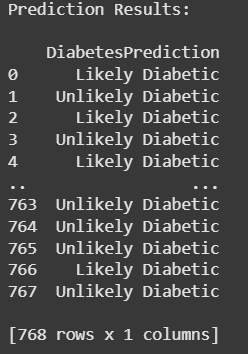
user\_df = pd.read\_csv(filename)

print(f"\nUploaded Data Preview:\n{user\_df.head()}")



# Step 8: Load model and predict

model = joblib.load('diabetes\_model.pkl')



predictions = model.predict(user\_df)

# Step 9: Show results

user\_df['DiabetesPrediction'] = ['Likely Diabetic' if p == 1 else 'Unlikely Diabetic' for p in predictions]

print("\nPrediction Results:\n")

print(user\_df[['DiabetesPrediction']])

# Optional: Download results

user\_df.to\_csv("prediction\_results.csv", index=False)

files.download("prediction\_results.csv")

GOOGLE COLAB PROJECT LINK:

<https://colab.research.google.com/drive/10eloduJd2dkZatBdim4xQOxtFdmmrDcR>