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# logistic regression
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
from google.colab import files
uploaded = files.upload()

dataset = pd.read_csv('diabetes1.csv')
plt.scatter(dataset['Glucose'],dataset['Outcome'])
plt.title('Glucose vs Outcome')
plt.xlabel('Glucose')
plt.ylabel('Outcome')
plt.show()

X = dataset.iloc[:, :-1].values
Y = dataset.iloc[:, -1].values

from sklearn.model_selection import train_test_split
X_train, X_test, Y_train, Y_test = train_test_split(X, Y, test_size = 0.2,
random_state = 0)

from sklearn.linear_model import LogisticRegression
regressor = LogisticRegression()
regressor.fit(X_train,Y_train)
Y_pred = regressor.predict(X_test)
df = pd.DataFrame({'Actual':Y_test,'Predicted':Y_pred})
print(df)

train_acc = regressor.score(X_train,Y_train)
print("The accuracy of training dataset is {}".format(train_acc*100))

from sklearn.metrics import accuracy_score
test_acc = accuracy_score(Y_test,Y_pred)
print("The accuracy of testing dataset is {}".format(test_acc*100))

from sklearn.metrics import classification_report,confusion_matrix
print(classification_report(Y_test,Y_pred))
cm = confusion_matrix(Y_test,Y_pred)
print(cm)
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X_test = np.array([[156],[72]])  
Y_pred = regressor.predict(X_test)  
print(Y_pred)
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