KNN for iris dataset

# importing libraries

import numpy as nm

import matplotlib.pyplot as mtp

import pandas as pd

#importing datasets

dataset= pd.read\_csv('Iris\_data.csv')

feature\_columns = ['SepalLengthCm', 'SepalWidthCm', 'PetalLengthCm','PetalWidthCm']

X = dataset[feature\_columns].values

y = dataset['Species'].values

from sklearn.preprocessing import LabelEncoder

le = LabelEncoder()

y = le.fit\_transform(y)

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.neighbors import KNeighborsClassifier

from sklearn.metrics import confusion\_matrix, accuracy\_score

from sklearn.model\_selection import cross\_val\_score

# Instantiate learning model (k = 3)

classifier = KNeighborsClassifier(n\_neighbors=3)

# Fitting the model

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

# Predicting the Test set results

y\_pred = classifier.predict(X\_test)

cm = confusion\_matrix(y\_test, y\_pred)

cm

accuracy = accuracy\_score(y\_test, y\_pred)\*100

print('Accuracy of our model is equal ' + str(round(accuracy, 2)) + ' %.')

from sklearn import metrics

print(metrics.classification\_report(y\_test, y\_pred))