

KNN

import Pandas as pd

from sklearn.datasets import load_iris
iris = load_iris()

df = pd.DataFrame(iris.data, columns=iris.feature_names)

df['target'] = iris.target

df[('flower_name')] = df['target'].apply

(lambda: iris.target_name[_])

from sklearn.model_selection import

train_test_split

x = df.drop(['target', 'flower_name'],
axis='columns')

y = df['target']

x_train, x_test, y_train, y_test = train_test_split

(x, y, test_size=0.2)

from sklearn.neighbors import

KNeighborsClassifier

knn = KNeighborsClassifier(
n_neighbors=10)

knn.fit(x_train, y_train)

knn.score(x_test, y_test)

0.966

knn.predict([[5.0, 3.0, 1.5, 0.2]])

O/P : 0 (verses)

K-Means Implementation

import pandas as pd

data = pd.read_csv("iris.csv")
data.head()

import numpy as np

import seaborn as sns

import matplotlib.pyplot as plt

from sklearn.datasets import load_iris

from sklearn.cluster import KMeans

x, y = load_iris(return_X_y=True)

Kmeans = KMeans(n_clusters=3, random_state=2)

kmeans.fit(x)

pred = kmeans.fit_predict(x)

pred