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In [9]: from sklearn import datasets
import pandas as pd

# Load the iris dataset
iris = datasets.load_iris()
print(iris)

# Print the type/type object of iris
print("\ntype:\n", type(iris))

# Print the dictionary keys of iris data
print("\nkeys:\n", iris.keys())

# Print the type/type object of given attributes
print("\ntype of data and target:\n", type(iris.data), type(iris.target))

# Print the number of rows and columns in the dataset
print("\ndata shape:\n", iris.data.shape)

# Print the target set of the data
print("\ntarget names:\n", iris.target_names)

# Load iris training dataset
X = iris.data
# Load iris target set
Y = iris.target
#print("\ntarget:\n", Y)

# Convert dataset type into dataframe
df = pd.DataFrame(X, columns=iris.feature_names)
# Print the first five tuples of dataframe
print("\nIris dataframe:\n", df.head())

# Load the diabetes dataset
diabetes = datasets.load_diabetes()
print("\ndiabetes dataset:\n", diabetes)

X_diabetes = diabetes.data
Y_diabetes = diabetes.target
#print("\ntarget:\n", Y_diabetes)

# Convert dataset type into dataframe
df_diabetes = pd.DataFrame(X_diabetes, columns=diabetes.feature_names)
# Print the first five tuples of dataframe
print("\nDiabetes dataframe:\n", df_diabetes.head())

# Load the breast cancer dataset
cancer_data = datasets.load_breast_cancer()
label_names = cancer_data['target_names']
labels = cancer_data['target']
feature_names = cancer_data['feature_names']
features = cancer_data['data']

print("\nBreast Cancer data:\n", cancer_data)
print("\nLabel names:\n", label_names)
print("\nLabels:\n", labels)
print("\nFeature names:\n", feature_names)
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print("\nFeatures:\n", features)
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140., 217., 121., 235., 245., 40., 52., 104., 132., 88., 69.,
219., 72., 201., 110., 51., 277., 63., 118., 69., 273., 258.,
43., 198., 242., 232., 175., 93., 168., 275., 293., 281., 72.,
140., 189., 181., 209., 136., 261., 113., 131., 174., 257., 55.,
84., 42., 146., 212., 233., 91., 111., 152., 120., 67., 310.,
94., 183., 66., 173., 72., 49., 64., 48., 178., 104., 132.,
220., 57.]), 'frame': None, 'DESCR': '.. _diabetes_dataset:\n\nDiab
etes dataset\n-----\n\nTen baseline variables, age, sex, body ma
ss index, average blood\npressure, and six blood serum measurements were ob
tained for each of n =\n442 diabetes patients, as well as the response of i
nterest, a\nquantitative measure of disease progression one year after base
line.\n\n**Data Set Characteristics:**\n\n :Number of Instances: 442\n\n
:Number of Attributes: First 10 columns are numeric predictive values\n\n
:Target: Column 11 is a quantitative measure of disease progression one yea
r after baseline\n\n :Attribute Information:\n      - age      age in years
\n      - sex\n      - bmi      body mass index\n      - bp      average blo
od pressure\n      - s1      tc, total serum cholesterol\n      - s2      l
dl, low-density lipoproteins\n      - s3      hdl, high-density lipoprotein
s\n      - s4      tch, total cholesterol / HDL\n      - s5      ltg, possi
bly log of serum triglycerides level\n      - s6      glu, blood sugar leve
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In []: