IMPLEMENT A CLASSIFIER USING OPEN SOURCE

Aim:-

To implement a KNN classifier using iris dataset

Objective:-

To analysis the statical parameters and workflow of the algorithm.

pseudocode / Algorithm:-

1. Install and import the libraies.
2. Load data set
3. split the data into training & Test sets.
4. Create the KNN classifier.
5. Train the model.
6. Make prediction
7. Evaluate model.

Observation:-

In this Iris dataset I used k-Nearest Neighbour algorithm (KNN).

When,

split the data using sklearn.

80% 20% ratio.

Normalize feature in the data set.

sepal length - 4.3 to 7.9 (in cm),

peta length : 1.0 to 6.9 (in cm).

DATASET:-

IRIS

Attributes :-

1. Sepal length cm
2. sepal Width cm
3. petal length cm
4. petal. coldth cm.

matrix | Table 6x 150 datas.

↓ ↓

clan row

Numerical values in dataset.

Note:-

petal length might dominate because it has a larger range - which ruins knn's decision. making.

sln

standard scalar.

- subtracts the means.
- divides by standard derivation

mean=0, std dev=1

Evaluation:-

When k=3

Accuracy : 1.00

classification Report:

	precision	Recall	f_1 - score
set osa	1.00	1.00	1.00
veriscoler	1.00	1.00	1.00

→ for k=5, 8, 10, 20

→ classification report will be same as k=3

Result:-

Implement a 'knn classifier by Iri's dataset.