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Project Title :

Make thr Prediction for "iris.csv" using kNN algorithm of Machine Learning

Conclusion :

Accroding to the prediction the k value should 3 that means my model work on sucessfully

points :

1 In kNN algorithm by default k=3

2 Host the data with th sklearn

3 split the data by train , test ,client

4 apply the classfier

5 predict the model values

6 check the accuracy

7 If k=2 clustering called as ByLinear Clustering

```
from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import accuracy_score


# Load the Iris dataset
iris = load_iris()
X = iris.data
y = iris.target


# Split the dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y,
test_size=0.2, random_state=42)

# Create a kNN classifier with k=3
k = 3
knn_classifier = KNeighborsClassifier(n_neighbors=k)
```

```
# Train the classifier on the training data
knn_classifier.fit(X_train, y_train)
```

```
KNeighborsClassifier(n_neighbors=3)
```

```
# Make predictions on the test data
y_pred = knn_classifier.predict(X_test)

# Calculate accuracy
accuracy = accuracy_score(y_test, y_pred)
print(f"Accuracy: {accuracy:.2f}")
```

```
Accuracy: 1.00
```