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#CES-DS

#STEPS TO WRITE THE ALGORITHM OF "KNN" 1.Host the data

2.Loading the data with sklearn

3.Split the data train_test_client

4.Apply classfier

5.Predict the model

6.Check your accuracy

#If value of "k=2" .It means clustering called as by linear 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)
```

PROJECT TITLE

Make the prediction for "iris.csv" using KNN algorithm of MAchine learning

```
# 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)
```

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

```
Accuracy: 1.00
```

#CONCLUSION It "k=3" successfully implemented