NAME : Thota Deepak

ROLL NO : 20X01A6708

COLLEGE NAME : Narasimha Reddy Engineering College

YEAR AND BRANCH : IV Year CSE Data Science

GitHub Profile : https://github.com/Whidevil

Project Title :

Make the prediction for "iris.csv" using kNN algorithm to find value of x for supervised learning.

```
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)
```

```python
# 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
```

Conclusion : In This model k=3 so it is successful