In [1]:
```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import accuracy_score
from sklearn.preprocessing import LabelEncoder

# Assuming your CSV file is at the specified path
csv_path = r"C:\Users\ARYAN PARIKH\Desktop\Oasis Internship\archive\Iris.csv"

# Load the dataset using pandas
iris_df = pd.read_csv(csv_path)

# Explore the dataset
print(iris_df.head())  # Display the first few rows of the dataframe

# Separate features (X) and target variable (y)
X = iris_df.drop('Species', axis=1)
y = iris_df['Species']

# Convert categorical labels to numerical values
label_encoder = LabelEncoder()
y = label_encoder.fit_transform(y)

# Split the data into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, randc

# Train the K-Nearest Neighbors model
model = KNeighborsClassifier(n_neighbors=3)
model.fit(X_train, y_train)

# Make predictions on the test set
predictions = model.predict(X_test)

# Evaluate the model's accuracy
accuracy = accuracy_score(y_test, predictions)
print(f"Accuracy: {accuracy}")
```

```
C:\Users\ARYAN PARIKH\AppData\Roaming\Python\Python311\site-packages\pandas
\core\arrays\masked.py:60: UserWarning: Pandas requires version '1.3.6' or n
ewer of 'bottleneck' (version '1.3.5' currently installed).
  from pandas.core import (

   Id  SepalLengthCm  SepalWidthCm  PetalLengthCm  PetalWidthCm      Species
0   1            5.1           3.5            1.4           0.2  Iris-setosa
1   2            4.9           3.0            1.4           0.2  Iris-setosa
2   3            4.7           3.2            1.3           0.2  Iris-setosa
3   4            4.6           3.1            1.5           0.2  Iris-setosa
4   5            5.0           3.6            1.4           0.2  Iris-setosa
Accuracy: 1.0
```

In [ ]: