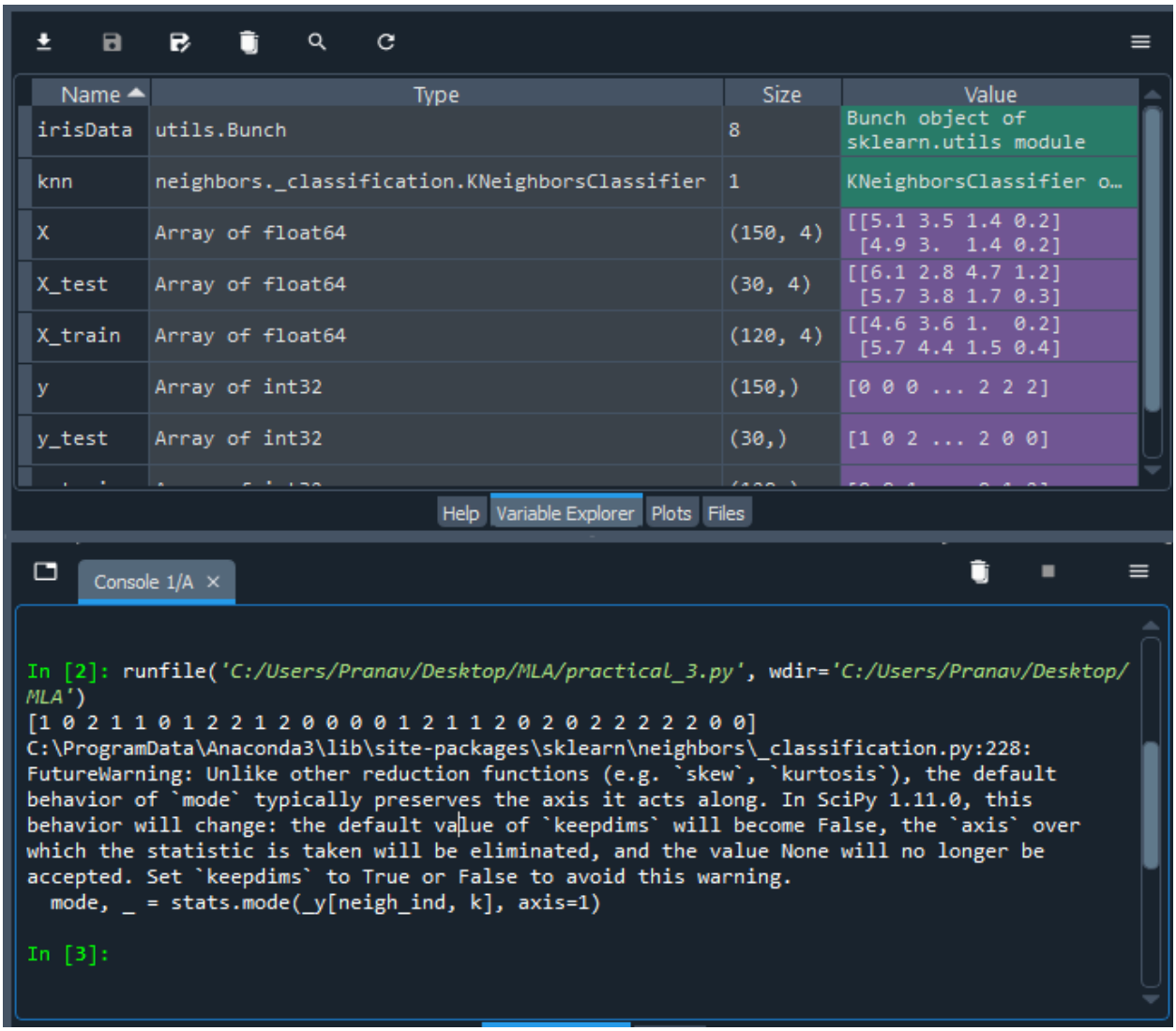
Program:

```
from sklearn.neighbors import KNeighborsClassifier
from sklearn.model_selection import train_test_split
from sklearn.datasets import load_iris
# Loading data
irisData = load_iris()
# Create feature and target arrays
X = irisData.data
y = irisData.target
# Split into training and test set
X_train, X_test, y_train, y_test = train_test_split( X, y, test_size = 0.2, random_state=42)
knn = KNeighborsClassifier(n_neighbors=7)
knn.fit(X_train, y_train)

print(knn.predict(X_test))
```

Output:



Name	Type	Size	Value
irisData	utils.Bunch	8	Bunch object of sklearn.utils module
knn	neighbors._classification.KNeighborsClassifier	1	KNeighborsClassifier o…
X	Array of float64	(150, 4)	[[5.1 3.5 1.4 0.2] [4.9 3. 1.4 0.2]
X_test	Array of float64	(30, 4)	[[6.1 2.8 4.7 1.2] [5.7 3.8 1.7 0.3]
X_train	Array of float64	(120, 4)	[[4.6 3.6 1. 0.2] [5.7 4.4 1.5 0.4]
y	Array of int32	(150,)	[0 0 0 ... 2 2 2]
y_test	Array of int32	(30,)	[1 0 2 ... 2 0 0]

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Console 1/A

```
In [2]: runfile('C:/Users/Pranav/Desktop/MLA/practical_3.py', wdir='C:/Users/Pranav/Desktop/
MLA')
[1 0 2 1 1 0 1 2 2 1 2 0 0 0 0 1 2 1 1 2 0 2 0 2 2 2 2 2 0 0]
C:\ProgramData\Anaconda3\lib\site-packages\sklearn\neighbors\_classification.py:228:
FutureWarning: Unlike other reduction functions (e.g. `skew`, `kurtosis`), the default
behavior of `mode` typically preserves the axis it acts along. In SciPy 1.11.0, this
behavior will change: the default value of `keepdims` will become False, the `axis` over
which the statistic is taken will be eliminated, and the value None will no longer be
accepted. Set `keepdims` to True or False to avoid this warning.
  mode, _ = stats.mode(_y[neigh_ind, k], axis=1)

In [3]:
```