k nearest

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[1]:
```
import pandas as pd
import numpy as np
import sklearn as sl
from sklearn.model_selection import train_test_split
from sklearn import datasets
from sklearn.neighbors import KNeighborsClassifier
```

[2]:
```
iris=datasets.load_iris()
iris.data.shape,iris.target.shape
```

[2]:
```
((150, 4), (150,))
```

[3]:
```
X_train,X_test,y_train,y_test=train_test_split(iris.data,iris.
 ↪target,test_size=0.2,random_state=0)
X_train.shape,y_train.shape
```

[3]:
```
((120, 4), (120,))
```

[4]:
```
X_test.shape,y_train.shape
```

[4]:
```
((30, 4), (120,))
```

[6]:
```
clf=KNeighborsClassifier()
clf.fit(X_train,y_train)
KNeighborsClassifier(algorithm='auto',leaf_size=30,metric='minkowski',metric_params=None,n_job
 ↪weights='uniform')
clf.score(X_test,y_test)
accuracy=clf.score(X_test,y_test)
print(accuracy)
```

```
0.9666666666666667
```

[7]:
```
example_measures=np.array([[4.7,3.2,2,0.2], [5.1,2.4,4.3,1.3]])
example=example_measures.reshape(2,-1)
prediction=clf.predict(example)
print(prediction)
```

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[0 1]
```

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