```
import numpy as np
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.neighbors import KNeighborsClassifier
from sklearn.metrics import accuracy_score
from matplotlib import pyplot as plt

data = {
    'acidity':[10,20,30,40,50,60,70,80,90,100],
      'alchol': [1,2,3,4,5,6,7,8,9,10],
      'quality': [0,0,0,0,0,1,1,1,1,1],
}

df = pd.DataFrame(data)

x = df[['acidity','alchol']]
y = df[['quality']]

k = 3
knn = KNeighborsClassifier(n_neighbors=k)
knn.fit(x,y)
```

```
/usr/local/lib/python3.10/dist-packages/sklearn/neighbors/
_classification.py:215: DataConversionWarning: A column-vector y was
passed when a 1d array was expected. Please change the shape of y to
(n_samples,), for example using ravel().
  return self._fit(X, y)
```

```
KNeighborsClassifier(n_neighbors=3)
```

```
new_data = np.array([[50,5]])
prediction = knn.predict(new_data)

if prediction[0] == 0:
  print("good")
elif prediction[0] == 1:
  print("bad")
```

```
good
```

```
/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439:
UserWarning: X does not have valid feature names, but
KNeighborsClassifier was fitted with feature names
  warnings.warn(
```