```
import numpy as np
import pandas as pd
from sklearn.neighbors import KNeighborsClassifier
from matplotlib import pyplot as plt

data={
    'BP':[120,130,140,150,160,170,180,190,200,210],
    'Cholestrol':[200,220,240,260,280,300,320,340,360,380],
    'HeartRisk':[0,0,0,0,1,1,1,1,1,1]
    }
df=pd.DataFrame(data)
print(df)
```

```
    BP  Cholestrol  HeartRisk
0  120         200          0
1  130         220          0
2  140         240          0
3  150         260          0
4  160         280          1
5  170         300          1
6  180         320          1
7  190         340          1
8  200         360          1
9  210         380          1
```

```
X=df[['BP','Cholestrol']]
y=df['HeartRisk']

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

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

```
new_data=np.array([[210,250]])
prediction=knn.predict(new_data)
if prediction==1:
    print("Heart Risk")
else:
    print("No Heart Risk")
print(prediction)
```

```
Heart Risk
[1]
```

```
/usr/local/lib/python3.12/dist-packages/sklearn/utils/
validation.py:2739: UserWarning: X does not have valid feature names,
but KNeighborsClassifier was fitted with feature names
  warnings.warn(
```