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

data={
    'BP':[120,157,156,145,456,130,159,160,220,240],
    'Cholesterol':[200,210,220,230,240,250,260,270,280,290],
    'HeartRisk':[0,1,0,1,0,0,0,1,1,1]
}

DATA=pd.DataFrame(data)

a=DATA[['BP','Cholesterol']]
b=DATA['HeartRisk']

k=3
knn=KNeighborsClassifier(n_neighbors=k)
knn.fit(a,b)
```

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

```
new_data=np.array([[220,250]])
prediction=knn.predict(new_data)
if prediction==0:
  print("no Risk")
else:
  print("At Risk")
```

```
At Risk
```

```
/usr/local/lib/python3.11/dist-packages/sklearn/utils/
validation.py:2739: UserWarning: X does not have valid feature names,
but KNeighborsClassifier was fitted with feature names
  warnings.warn(
```