

### KNeighborsClassifier

```
import pandas as pd

import matplotlib.pyplot as plt

import numpy as np


dataset = pd.read_csv(r'D:\Samsom - All Data\Naresh IT Institute\New folder\logit
classification.csv')


x = dataset.iloc[:, [2, 3]].values
y = dataset.iloc[:, -1].values


from sklearn.model_selection import train_test_split
x_train, x_test, y_train, y_test = train_test_split(x, y, test_size = 0.20, random_state=0)


from sklearn.preprocessing import StandardScaler
sc = StandardScaler()
x_train = sc.fit_transform(x_train)
x_test = sc.transform(x_test)


from sklearn.neighbors import KNeighborsClassifier

classifier = KNeighborsClassifier(n_neighbors = 7, weights="distance", p=1, algorithm=
'kd_tree')

classifier.fit(x_train, y_train)


y_pred = classifier.predict(x_test)


from sklearn.metrics import confusion_matrix
```

```
cm = confusion_matrix(y_test, y_pred)
print(cm)
```

```
from sklearn.metrics import accuracy_score
ac = accuracy_score(y_test, y_pred)
print(ac)
```

```
bias = classifier.score(x_train, y_train)
print(bias)
```

```
variance = classifier.score(x_test, y_test)
print(variance)
```