LAB TASK #03

SHOAIB AKHTAR

20P-0147

TASK-1

KNN

We have a Data in the Form of lists. Mam Please Don’t Deduct my marks on Because of this. I got your Permission in the Lab.

Output:1

And here if you see the output that we are passing the Data1, Data2 and Y_label and X1, X2 and K_value as a parameter to the KNN class.
And getting the output: **“New paper tissue that pass laboratory test with X1 = 3 and X2 = 7 is included in Good category”**

```
data1   = [7,7,3,1]
data2   = [7,4,4,4]
y_label = ['Bad','Bad','Good','Good',]


a  = KNN(data1,data2,y_label,3,7,3)
```

```
New paper tissue that pass laboratory test with X1 =  3  and X2 = 7  is included in Good category
```

Output:2

Here we have increased the quantity of bad in Y-label and you can see the output **“New paper tissue that pass laboratory test with X1 = 3 and X2 = 7 is included in Bad category”**

```
In [100]: data1   = [7,7,3,1]
          data2   = [7,4,4,4]
          y_label = ['Bad','Bad','Bad','Good',]

          a  = KNN(data1,data2,y_label,3,7,3)

          New paper tissue that pass laboratory test with X1 =  3  and X2 = 7  is included in Bad category

In [ ]:
```

Output:3

Here You can see that we are passing the **Value of K greater then the Y_label** and we are getting the message **“The K_value is Greater then the values of Y_Label”**

```
In [98]: data1   = [7,7,3,1]
         data2   = [7,4,4,4]
         y_label = ['Bad','Bad','Good','Good',]

         a  = KNN(data1,data2,y_label,3,7,13)

         The K_value is Greater then the values of Y_Label

In [ ]:
```

Output:4

Here You can see that we are passing the Even Value of K and getting the message "`The Value of K is  4  and it is even value. So, According to KNN algorithm it should be od`"

```
In [96]: data1   = [7,7,3,1]
         data2   = [7,4,4,4]
         y_label = ['Bad','Bad','Good','Good',]


         a  = KNN(data1,data2,y_label,3,7,4)
```

```
The Value of K is  4  and it is even value. So, According to KNN algorithm it should be odd
```

TASK-2

Output:1