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In [5]: import csv
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
def KNN(datax):
    print("Enter ur weight & chest size to buy right size ")
    a,b,c =input().split()
    a = int(a)
    b = int(b)
    c = int(c)
    for line in datax:
        x = int(line[0])
        y = int(line[1])
        z = int(line[2])

        dist = np.sqrt((x-a)**2+(y-b)**2+(z-c)**2)
        line.append(dist)

    print("How many nearest survey k= ")
    k = int(input())
    datax.sort(key = lambda i:i[4])
    print("k shortest distance")
    scount = 0
    lcount = 0
    mcount = 0
    xlcount = 0
    for j in range(k):
        print(datax[j])
        if datax[j][3]=='S':
            scount += 1
        if datax[j][3]=='M':
            mcount+=1
        if datax[j][3]=='L':
            lcount+=1
        if datax[j][3]=='XL':
            xlcount+=1
    x1=["S","M","L","XL"]
    y1=[scount,mcount,lcount,xlcount]
    plt.bar(x1,y1)
    plt.show( )
    if(scount>mcount and scount>lcount and scount>xlcount):
        print(".....GO FOR SMALL SIZE.....")
    elif(mcount>scout and mcount>lcount and mcount>xlcount):
        print(".....GO FOR MEDIUM SIZE.....")
    elif(lcount>scout and lcount>mcount and lcount>xlcount):
        print(".....GO FOR LARGE SIZE.....")
    else:
        print(".....GO FOR XL SIZE.....")

def main():
    file = r"C:\Users\AMC College\Desktop\DATA SET\T-shirt1.csv"
    data=pd.read_csv(file)
    display(data)
    fd = csv.reader(open(file))
    datax=[]

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for line in fd:
    datax.append(line)
KNN(datax[1:])
```

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main()
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	Weight	height	chestsize	T-shirt size
<b>0</b>	55	170	45	S
<b>1</b>	67	172	49	M
<b>2</b>	70	169	47	M
<b>3</b>	80	174	49	L
<b>4</b>	88	175	50	XL
<b>5</b>	67	171	44	M
<b>6</b>	50	166	40	S
<b>7</b>	90	178	52	XL
<b>8</b>	98	175	50	XL
<b>9</b>	60	160	42	S
<b>10</b>	75	175	48	L
<b>11</b>	78	174	50	L
<b>12</b>	66	168	46	M
<b>13</b>	79	171	49	L
<b>14</b>	44	160	44	S
<b>15</b>	99	179	56	XL

Enter ur weight & chest size to buy right size

60 176 38

How many nearest survey k=

4

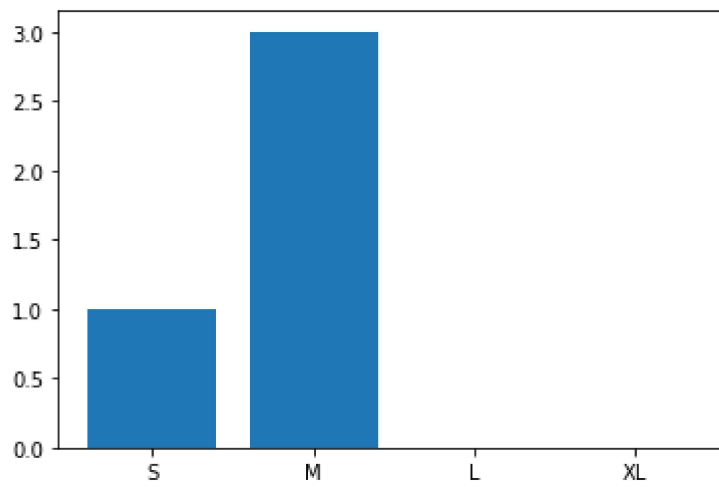
k shortest distance

['55', '170', '45', 'S', 10.488088481701515]

['67', '171', '44', 'M', 10.488088481701515]

['66', '168', '46', 'M', 12.806248474865697]

['67', '172', '49', 'M', 13.638181696985855]



.....GO FOR MEDIUM SIZE.....

In [2]: `print("hello")`

hello

In [ ]: