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## ASSIGNMENT 1

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def FETCH(K,L,d):
    k=[]
    for i in range(0,len(L)):
        k.append(0)
    print("ENTER THE COMMAND FOR FETCH DATA")
    a = list(input().split(":"))
    b = list(a[0].split(","))
    c = list(a[1].split(","))
    length1 = len(c)
    for i in range(0,length1,2):
        r = c[i+1]
        for j in range(0,len(d[c[i]])):
            if(r == d[c[i]][j]):
                k[j]+=1
    o = -1
    z = 0
    for i in range(0,len(L)):
        if(k[i] > o):
            z = i
            o = k[i]
    for i in b:
        print(i+" is:"+d[i][z])
def INSERT(file,K,L,d):
    f0 = open(file,"w")
    f0.write("NAME SEM ROLL AGE MARKS MOB_NO "+"\\n")
    print("NUMBER OF RECORDS WANTS TO ENTER")
    query = int(input())
    for i in range(0, query):
        a = input() # 1 TAB SEPERATED INPUT
        L.append(a)
    for i in L:
        a = list(i.split(" "))
        K.append(a)
    U = []
    V = []
    W = []
    X = []
    Y = []
    Z = []
    for i in range(0,len(K)):
        U.append(K[i][0])
        V.append(K[i][1])
        W.append(K[i][2])
        X.append(K[i][3])
        Y.append(K[i][4])
        Z.append(K[i][5])
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d["NAME"] = U
d["SEM"] = V
d["ROLL"] = W
d["AGE"] = X
d["MARKS"] = Y
d["MOB_NO"] = Z
for i in L:
    f0.write(i+"\n")
f0.close()
def UPDATE(file,K,L,d):
    print("ENTER THE UPDATE COMMAND")
    update = list(input().split(":"))
    a1 = list(update[0].split(","))
    a2 = list(update[1].split(","))
    a3 = list(update[2].split(","))
    query = int(a1[0])
    length1 = len(a3)
    k = []
    for i in range(0,len(L)):
        k.append(0)
    for i in range(0,length1,2):
        r = a3[i+1]
        for j in range(0,len(d[a3[i]])):
            if(r == d[a3[i]][j]):
                k[j]+=1
    o = -1
    z = 0
    for i in range(0,len(L)):
        if(k[i] > o):
            z = i
            o = k[i]
    for i in range(1,query+1):
        d[a1[i]][z] = a2[i]
    f1 = open(file,"w")
    f1.write("NAME SEM ROLL AGE MARKS MOB_NO "+"\\n")
    for i in range(0,len(d["NAME"])):
        f1.write(d["NAME"][i]+" ")
        f1.write(d["SEM"][i]+" ")
        f1.write(d["ROLL"][i]+" ")
        f1.write(d["AGE"][i]+" ")
        f1.write(d["MARKS"][i]+" ")
        f1.write(d["MOB_NO"][i]+" ")
        f1.write("\\n")
    f1.close()
def DELETE(file,K,L,d):
    print("ENTER THE DELETE COMMAND")
    a4 = list(input().split(","))
    k = []
    for i in range(0,len(L)):
        k.append(0)
    length1 = len(a4)
    for i in range(0,length1,2):

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    r = a4[i+1]
    for j in range(0,len(d[a4[i]])):
        if(r == d[a4[i]][j]):
            k[j]+=1
o = max(k)
z = []
j = 0
for i in k:
    if o == i:
        z.append(j)
        j+=1
p = 0
for i in range(0,len(z)):
    L = L[:z[i]-1*p]+L[z[i]+1-1*p:]
    K = K[:z[i]-1*p]+K[z[i]+1-1*p:]
    p+=1

```

```

del d["NAME"]
del d["SEM"]
del d["ROLL"]
del d["AGE"]
del d["MARKS"]
del d["MOB_NO"]
U = []
V = []
W = []
X = []
Y = []
Z = []
for i in range(0,len(K)):
    U.append(K[i][0])
    V.append(K[i][1])
    W.append(K[i][2])
    X.append(K[i][3])
    Y.append(K[i][4])
    Z.append(K[i][5])
d["NAME"] = U
d["SEM"] = V
d["ROLL"] = W
d["AGE"] = X
d["MARKS"] = Y
d["MOB_NO"] = Z
fl = open(file,"w")
fl.write("NAME SEM ROLL AGE MARKS MOB_NO "+"\\n")
for i in range(0,len(d["NAME"])):
    fl.write(d["NAME"][i]+" ")
    fl.write(d["SEM"][i]+" ")
    fl.write(d["ROLL"][i]+" ")
    fl.write(d["AGE"][i]+" ")
    fl.write(d["MARKS"][i]+" ")
    fl.write(d["MOB_NO"][i]+" ")
    fl.write("\\n")

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```
fl.close()
file = 'Students_Details.txt'
K = []
L = []
d = {}
while(1):
    print("WELCOME")
    print("OPTIONS AVAILABLE ARE AS FOLLOWING")
    print("PRESS 1 FOR INSERT RECORD")
    print("PRESS 2 FOR UPDATE RECORD")
    print("PRESS 3 FOR DELETE RECORD")
    print("PRESS 4 FOR FETCH RECORDS")
    print("PRESS 5 FOR EXIT")
    print("CHOOSE YOUR OPTION:")
    option = int(input())
    if(option == 1):
        print("INSERT RECORD")
        INSERT(file,K,L,d)
    elif(option == 2):
        print("UPDATE RECORD")
        UPDATE(file,K,L,d)
    elif(option == 3):
        print("DELETE RECORD")
        DELETE(file,K,L,d)
    elif(option == 4):
        print("FETCH DATA")
        FETCH(K,L,d)
    else:
        print("EXIT")
        break;
```