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Subject: Data Structure and Algorithm Laboratory
Assignment No.6

```
#include<iostream>
#include<queue>
usingnamespacestd;
intadj_mat[50][50]={0,0};
intvisited[50]={0};
intmain()
{
    intn,u;
    cout<<"Enterno.ofcities:";
    cin>>n;
    stringcities[n];
    for(inti=0;i<n;i++)
    {
        cout<<"Entercity#"<<i<<"(AirportCode):";
        cin>>cities[i];
    }
    cout<<"\nYourcitiesare:"<<endl;
    for(inti=0;i<n;i++)
        cout<<"city#"<<i<<": "<<cities[i]<<endl;
    for(inti=0;i<n;i++)
    {
        for(intj=i+1;j<n;j++)
        {
            cout<<"Enterdistancebetween"<<cities[i]<<"and"<<cities[j]<<". ";
            cin>>adj_mat[i][j];
            adj_mat[j][i]=adj_mat[i][j];
        }
    }
    cout<<endl;
    for(inti=0;i<n;i++)
        cout<<"\t"<<cities[i]<<"\t";
    for(inti=0;i<n;i++)
    {
        cout<<"\n"<<cities[i];
        for(intj=0;j<n;j++)
            cout<<"\t"<<adj_mat[i][j]<<"\t";
        cout<<endl;
    }
    return0;
}
```

```
/*
Enterno.ofcities:4
Entercity#0(AirportCode):m
Entercity#1(AirportCode):p
Entercity#2(AirportCode):d
Entercity#3(AirportCode):k
Yourcitiesare:
city#0:m
city#1:p
city#2:d
city#3:k
Enterdistancebetweenm andp:4
Enterdistancebetweenm andd:6
```

Enter distance between m and k: 8
Enter distance between p and d: 2
Enter distance between p and k: 6
Enter distance between d and k: 1
m p d k
m 0 4 6 8
p 4 0 2 6
d 6 2 0 1
k 8 6 1 0
*/

```
D:\AbdulMuiz\College Practicals\DSA\flight.exe
Enter no. of cities: 4
Enter city #0 (Airport Code): m
Enter city #1 (Airport Code): p
Enter city #2 (Airport Code): d
Enter city #3 (Airport Code): k

Your cities are:
city #0: m
city #1: p
city #2: d
city #3: k
Enter distance between m and p: 4
Enter distance between m and d: 6
Enter distance between m and k: 8
Enter distance between p and d: 2
Enter distance between p and k: 6
Enter distance between d and k: 1

      m      p      d      k
m      0      4      6      8
p      4      0      2      6
d      6      2      0      1
k      8      6      1      0

-----
Process exited after 9.959 seconds with return value 0
Press any key to continue . . .
```