

Answer on Question#37430 - Programming, C++

1. Creating an adjacency matrix of the form

FRA JFK LHR ROC SYR YYZ

FRA 600

JFK 540 500 55

LHR 550

ROC 50 20

SYR 45

YYZ 480

The input is to be taken from an input file that contains:

ROC JFK 50

ROC YYZ 20

SYR JFK 45

JFK ROC 55

JFK LHR 500

YYZ LHR 480

JFK FRA 540

FRA JFK 600

LHR JFK 550

Note: Use only STL class [vector].

Solution.

```
#include <iostream>
#include <vector>
#include <string>
#include <fstream>

using namespace std;

typedef vector< vector<int> > ivec;

int conversion(char* ch);
int main(int argc, char * argv[])
{
    ivec matrix(6,vector<int>(6));

    char buf[64], symb[3];
    int id[2]={0};
    int num=0;

    ifstream in;
    in.open("D://inputfile.txt");

    if(in.is_open())
    {
        while(!in.eof())
        {
            memset(buf, 0, 64);
```

```

in.getline(buf, 64);

for(int j=0; j<3; j++)
{
    memset(symb, 0, 6);
    for(int i=0; i<3; i++)
    {
        symb[i]=buf[i+4*j];
    }

    if(j==2){ matrix[id[0]][id[1]]= atoi(symb); }
    else{ id[j]=conversion(symb);}
}

}

in.close();
}
return 0;
}

int conversion(char* ch)
{
    string str[6];
    str[0]="FRA";
    str[1]="JFK";
    str[2]="LHR";
    str[3]="ROC";
    str[4]="SYR";
    str[5]="YYZ";

    for(int i=0; i<6; i++)
    {
        if(strcmp(ch, str[i].c_str())==0){ return i;}
    }
}

```