

Floyd-Warshall

Given The description of cities I Have to print the minimum cost to go from everycity to other city.If there are infinite number of paths print -1;

```
#include<bits/stdc++.h>

using namespace std;

#define ll long long
#define inf 0x3f3f3f3f
#define mxx 30
#define sfill(a) scanf("%lld",&a)
ll matrix[mxx + 5][mxx + 5];

int main()
{
    ll edge,ww =0;
    while(sfill(edge)==1)
    {
        memset(matrix,0,sizeof(matrix));

        ll mx = 0;

        for(ll i=0; i<edge; i++)
        {
            ll frm,to;

            sfill(frm);

            sfill(to);

            mx = max(mx,max(frm,to));

            //sfill(cst);

            matrix[frm][to] = 1;
        }

        for(int k = 0; k<=mxx ; k++)

            for(int i = 0; i<=mxx ; i++)

                for(int j = 0; j<=mxx ; j++)

                    if(matrix[i][k] !=0 && matrix[k][j] !=0)

                        matrix[i][j] += (matrix[i][k] * matrix[k][j]);

        for(int k = 0; k<=mxx ; k++)

            if(matrix[k][k]!=0){

                for(int i = 0; i<=mxx ; i++)

                    for(int j = 0; j<=mxx ; j++)

                        if(matrix[i][k] !=0 && matrix[k][j] !=0){
```

```
//matrix[i][k] = -1;

                matrix[i][j] = -1;

            }printf("matrix for city %lld\n",ww++);

        for(int i = 0; i<=mxx ; i++)

        {

            for(int j = 0; j<=mxx ; j++)

            {

                printf("%lld",matrix[i][j]);

                if(j<mxx)

                    printf(" ");

            }

            printf("\n");

        }

    }

    return 0;
}
```