

NAME : TANISHQ GUPTA

CLASS : SE

BATCH : A4

ROLL NO.: SEAD21168

C14

CODE:

```
#include <iostream>

using namespace std;

int main() {
    int n, i, j, k, row, col, mincost=0, min;
    char op;
    cout<<"Enter no. of vertices: ";
    cin>>n;
    int cost[n][n];
    int visit[n];
    for(i=0; i<n; i++)
        visit[i] = 0;
    for(i=0; i<n; i++)
        for(int j=0; j<n; j++)
            cost[i][j] = -1;
    for(i=0; i<n; i++)
    {
        for(j=i+1; j<n; j++)
        {
            cout<<"Do you want an edge between "<<i+1<<" and "<<j+1<<": ";
            //use 'i' & 'j' if your vertices start from 0
            cin>>op;
            if(op=='y' || op=='Y')
            {
                cout<<"Enter weight: ";
                cin>>cost[i][j];
            }
        }
    }
}
```

```

        cost[j][i] = cost[i][j];
    }
}
}
visit[0] = 1;
for(k=0; k<n-1; k++)
{
    min = 999;
    for(i=0; i<n; i++)
    {
        for(j=0; j<n; j++)
        {
            if(visit[i] == 1 && visit[j] == 0)
            {
                if(cost[i][j] != -1 && min>cost[i][j])
                {
                    min = cost[i][j];
                    row = i;
                    col = j;
                }
            }
        }
    }
    mincost += min;
    visit[col] = 1;
    cost[row][col] = cost[col][row] = -1;
    cout<<row+1<<"-"<<col+1<<endl;
}
cout<<"\nMin. Cost: "<<mincost;
return 0;
}

```

OUTPUT:

```
PS C:\Users\tanis\OneDrive\Desktop\tanishq_gupta_21168> g++ .\c14.cpp
PS C:\Users\tanis\OneDrive\Desktop\tanishq_gupta_21168> .\a.exe
Enter no. of vertices: 3
Do you want an edge between 1 and 2: y
Enter weight: 12
Do you want an edge between 1 and 3: y
Enter weight: 5
Do you want an edge between 2 and 3: y
Enter weight: 6
1->3
3->2

Min. Cost: 11
PS C:\Users\tanis\OneDrive\Desktop\tanishq_gupta_21168> |
```