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#include<iostream>
using namespace std;
const int V=6;

int min_Key(int key[], bool visited[])
{
    int min = 999, min_index;
    for (int v = 0; v < V; v++)
    {
        if (visited[v] == false && key[v] < min)
        {
            min = key[v];
            min_index = v;
        }
    }
    return min_index;
}

void print_MST(int parent[], int cost[V][V])
{
    int minCost=0;
    cout<<"Edge \tWeight\n";
    for (int i = 1; i< V; i++)
    {
        cout<<parent[i]<<" - "<<i<<" \t"<<cost[i][parent[i]]<<"
\n";minCost+=cost[i][parent[i]];
    }
    cout<<"Total cost is"<<minCost;
}

void find_MST(int cost[V][V])
{
    int parent[V], key[V];
    bool visited[V];
    for (int i = 0; i< V; i++) {
        key[i] = 999;
        visited[i] = false;
        parent[i]=-1;
    }

    key[0] = 0;
    parent[0] = -1;
    for (int x = 0; x < V - 1; x++)
    {
        int u = min_Key(key, visited);
        visited[u] = true;
        for (int v = 0; v < V; v++)
        {
            if (cost[u][v]!=0 && visited[v] == false && cost[u][v] < key[v])
            {
                parent[v] = u;
                key[v] = cost[u][v];
            }
        }
    }
}

```

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print_MST(parent, cost);
}

int main()
{
int cost[V][V];
cout<<"Enter the vertices for a graph with 6 vetices";
for (int i=0;i<V;i++)
{
for(int j=0;j<V;j++)
{
cin>>cost[i][j];
}

}find_MST(cost);
return 0;
}

```

Output:-

```

Enter the vertices for a graph with 6 vetices
0 4 0 0 0 2
4 0 6 0 0 3
0 6 0 3 0 1
0 0 3 0 2 0
0 0 0 2 0 4
2 3 1 0 4 0
Edge Weight
5 - 1      3
5 - 2      1
2 - 3      3
3 - 4      2
0 - 5      2
Total cost is11

```