

## Kruskal's algorithm.

```
#include <stdio.h>
```

```
int c[10][10], n
```

```
void main()
```

```
{
```

```
    int i, j;
```

```
    clrscr();
```

```
    printf("Enter the number of vertices (n):");
```

```
    scanf("%d", &n);
```

```
    printf("Enter the cost matrix\n");
```

```
    for (int i = 1; i <= n; i++)
```

```
    {
```

```
        for (j = 1; j <= n; j++)
```

```
        {
```

```
            scanf("%d", &c[i][j]);
```

```
        }
```

```
    }
```

```
    kruskals();
```

```
    getch();
```

```
}
```

```
void kruskals()
```

```
{
```

```
    int i, j, u, v, a, b, min
```

```
    int nc = 0; minCost = 0
```

```
    int parent[10];
```

```
    for (int i = 1; i <= n; i++)
```

```
    {
```

```
        parent[i] = 0;
```

```
    }
```

```
    while (nc != n-1)
```

```
    {
```

```
        min = 9999;
```

```
        for (i = 1; i <= n; i++)
```



```

3
for (j=1; j<=n; j++)

```

```

    if (c[i][j] < min)

```

```

        min = c[i][j]

```

```

        u = a = i

```

```

        v = b = j

```

```

    }

```

```

}

```

```

while (parent[u] != 0)

```

```

    u = parent[u]

```

```

while (parent[v] != 0)

```

```

    v = parent[v]

```

```

if (u != v)

```

```

    printf ("In id - %d it %d\n", a, b, min);

```

```

    parent[v] = u;

```

```

    u = u + 1;

```

```

    minlost = minlost + min;

```

```

}

```

```

c[a][b] = c[b][a] = 9999

```

```

printf

```

```

}

```

```

printf ("In min lost = %d", minlost);

```

```

}

```