

Algorithm : Reverse Delete to find Minimum Spanning Tree

Name: Sanskriti Pattanayak

SRN: PES2201800329

Class: CSE 5th Sem E Sec EC Campus

1) Example 1:

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> ./a.exe
Number of vertices: 9
Number of edges: 14
Graph with 14 Edges 9 Vertices
Enter vertex pairs with edge in between : Eg. (0 1 w) -> Edge between V0 and V1 with weight w
Edge 1 :0 1 4
Edge 2 :0 7 8
Edge 3 :1 7 11
Edge 4 :1 2 8
Edge 5 :2 8 2
Edge 6 :7 8 7
Edge 7 :8 6 6
Edge 8 :7 6 1
Edge 9 :2 5 4
Edge 10 :6 5 2
Edge 11 :2 3 7
Edge 12 :3 5 14
Edge 13 :3 4 9
Edge 14 :5 4 10
Edge (3 , 4) included in MST
Edge (1 , 2) included in MST
Edge (2 , 3) included in MST
Edge (0 , 1) included in MST
Edge (2 , 5) included in MST
Edge (2 , 8) included in MST
Edge (6 , 5) included in MST
Edge (7 , 6) included in MST
Weight of MST is 37
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> |
```

2) Example 2

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> cd ReverseDelete
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> ./a.exe
Number of vertices: 5
Number of edges: 7
Graph with 7 Edges 5 Vertices
Enter vertex pairs with edge in between : Eg. (0 1 w) -> Edge between V0 and V1 with weight w
Edge 1 :0 1 8
Edge 2 :0 2 5
Edge 3 :1 2 9
Edge 4 :1 3 11
Edge 5 :2 3 15
Edge 6 :2 4 10
Edge 7 :3 4 7
Edge (2 , 4) included in MST
Edge (0 , 1) included in MST
Edge (3 , 4) included in MST
Edge (0 , 2) included in MST
Weight of MST is 30
```

3) Example 3

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> ./a.exe
Number of vertices: 5
Number of edges: 6
Graph with 6 Edges 5 Vertices
Enter vertex pairs with edge in between : Eg. (0 1 w) -> Edge between V0 and V1 with weight w
Edge 1 :0 1 3
Edge 2 :1 2 9
Edge 3 :2 3 8
Edge 4 :0 3 4
Edge 5 :0 4 13
Edge 6 :4 2 2
Edge (2 , 3) included in MST
Edge (0 , 3) included in MST
Edge (0 , 1) included in MST
Edge (4 , 2) included in MST
Weight of MST is 17
```

4) Example 4

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> ./a.exe
Number of vertices: 7
Number of edges: 9
Graph with 9 Edges 7 Vertices
Enter vertex pairs with edge in between : Eg. (0 1 w) -> Edge between V0 and V1 with weight w
Edge 1 :0 1 1
Edge 2 :0 4 2
Edge 3 :1 4 3
Edge 4 :1 2 4
Edge 5 :5 6 5
Edge 6 :2 6 6
Edge 7 :1 5 7
Edge 8 :2 3 8
Edge 9 :3 6 9
Edge (2 , 3) included in MST
Edge (2 , 6) included in MST
Edge (5 , 6) included in MST
Edge (1 , 2) included in MST
Edge (0 , 4) included in MST
Edge (0 , 1) included in MST
Weight of MST is 26
```

5) Example 5

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> gcc ReverseDelete.c
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\ReverseDelete> ./a.exe
Number of vertices: 5
Number of edges: 5
Graph with 5 Edges 5 Vertices
Enter vertex pairs with edge in between : Eg. (0 1 w) -> Edge between V0 and V1 with weight w
Edge 1 :0 3 6
Edge 2 :0 2 9
Edge 3 :2 3 4
Edge 4 :3 1 26
Edge 5 :3 4 20
Edge (3 , 1) included in MST
Edge (3 , 4) included in MST
Edge (0 , 3) included in MST
Edge (2 , 3) included in MST
Weight of MST is 56
```