Steps of the Kruskal's Algorithm

1) Input Graph Representation

2) Sort Edges by Weight (Arrange all edges in ascending order of their weights).

3) Initialize a Disjoint-Set Data Structure.

4) Iterate Through Sorted Edges.

   For each edge (u, v, w) in the sorted edge list, the find operation of DSU to check whether u and v belong to the same connected component.

   If u and v are in different sets:

   - Include the edge in the MST.

   - Perform a union operation to merge the sets of u and v.

5) Repeat Until MST Contains n−1 Edges.

Analysis of Kruskal's Algorithm

1) Time Complexity: $O(E \log E)$

2) Space Complexity: $O(N + E)$

'E' for edges, 'N' for nodes or vertices

Example from our project:

```
###############################################################################
# Welcome to Kruskal's Algorithm MST Calculator 3>                            #
# You need to input the graph as follows:                                     #
# 1. Enter the total number of nodes.                                         #
# 2. Enter the total number of edges.                                         #
# 3. For each edge, enter three values: source node, destination node, and edge weight.  #
# Example: If you have an edge between node 0 and node 1 with weight 7, input: 0 1 7.  #
# Nodes are labelled from 0 to N-1.                                           #
###############################################################################

Enter the number of nodes(N): 4
Enter the number of edges(E): 5

Enter the edges (source destination weight):
Edge 1: 0 1 10
Edge 2: 0 2 6
Edge 3: 0 3 5
Edge 4: 1 3 15
Edge 5: 2 3 4

The edges in the Minimum Spanning Tree (MST) are:
Edge (2 - 3) with weight 4
Edge (0 - 3) with weight 5
Edge (0 - 1) with weight 10
```