Graph Generation Report – Group 132

Overview

This document details the generation of graphs using the GraphStream Library, specifically highlighting the application of Kruskal's algorithm in one of the graph constructions.

Libraries and Tools

GraphStream Library

The primary tool used for graph generation in this project. GraphStream is a dynamic graph library that provides a range of functionalities for creating, manipulating, and visualizing graphs.

Methodology

Graph Generation

The graphs were generated utilizing the capabilities of the GraphStream Library. This library offers a versatile set of features that facilitated the creation and customization of various graph structures.

Application of Kruskal's Algorithm

For one of the graphs, Kruskal's algorithm was employed. Kruskal's algorithm is a well-known algorithm used to find the minimum spanning tree (MST) of a graph. By applying this algorithm, we were able to efficiently construct a MST, ensuring that the graph remains connected while minimizing the total edge weight.

Conclusion

The GraphStream Library proved to be an effective tool for graph generation, providing the necessary functionalities to implement and visualize the graphs required for this project. The use of Kruskal's algorithm was integral in constructing a minimum spanning tree for one of the graphs, showcasing the versatility and power of the tools and algorithms employed.