CHAPTER 1
INTRODUCTION

1.1 Background

In the construction of a network, there is a problem where it spends too much cost or distance. Suppose there is a district which will install a network. There are some houses where the network will be installed. In a graph, the houses are represented as nodes, and the distance between each house is represented as edge. This edge also represents the length of network cable. To find the minimum length of network cable, some methods must be required. One of them is minimum spanning tree.

Minimum spanning tree can be found by using certain algorithm. Kruskal algorithm and Prim are two algorithm that commonly used in finding minimum spanning tree. These two algorithms have different method but same aims, to determine the lowest cost of minimum spanning tree (MST).

This project will discuss the comparison between Kruskal and Prim algorithm. The comparison is studied in order to understand how these two algorithms work and which one is more effective.

1.2 Scope

Kruskal dan Prim algorithm will be run by using Java program. There are several data sample that will be used in this program. By using these data sample, the program is expected to find minimum spanning tree result. The program will show the result with two options, with Kruskal or Prim algorithm. These result then will be analyzed by comparing each algorithm.

1.3 Objective

The objective of this project is to analyze comparison between Kruskal and Prim algorithm in finding minimum spanning tree. Based on this analysis, it is expected this project can be used as a media to learn.