Abstract

In this thesis, we study graphs, consider algorithms for finding the shortest paths between nodes, and model the Dijkstr algorithm in a programming language.

The project summarizes the mathematical understanding of the description, analysis and synthesis of the network, illustrates the elements of graph theory and the main characteristics of the structure represented by graphs. Several methods have been used to create possible paths with these two network nodes.

In addition, a project business plan was developed and the payback period of the project was calculated, as well as calculations were made on the safety of life of the activity.