

Partitioning nodes of a graph into clusters according to their similarities can be a very useful but complex task of data analysis. Many different approaches and algorithms for this problem exist, one of the possibilities is to utilize genetic algorithms for solving this type of task. In this work, we analyze different approaches to clustering in general and in the domain of graphs. Several clustering algorithms based on the concept of genetic algorithm are proposed and experimentally evaluated. A server application that contains implementations of these algorithms was developed and is attached to this thesis.