This work used a data set of stock prices for various companies, compiled from sets of historical data for 5 years obtained from the Yahoo Finance resource.

This work is devoted to the following research questions:

- Which stocks have shown similar behavior based on historical data?

- Is there a relationship between the prices of stocks of companies belonging to the same sector? (The companies below will be classified by industry, namely the financial, technology, retail, etc.)

- Is there a relationship between companies from different sectors? What sectors are connected?

The main aim of the research is to identify correlations and dependencies between changes in the stock prices of various companies based on association rules mining.

This analysis was performed using the R programming language.

During the research, interesting patterns were identified that investors could use when compiling a portfolio of securities. For example, the dependence of changes in the value of stocks within a particular industry and the relationship between the behavior of stocks in the energy and financial sectors were obtained.

Graphs of association rules were built, and groups of companies with similar behavior of stock prices were identified.