

Abstract

The stock portfolio is a collection of shares owned by various sectors to be a proof of ownership of investors. These shares have different amounts of proportion. The purpose of the Final Project is to create a stock portfolio by selecting stock itemsets that meet the requirements, ie minimum return and minimum diversification. This research uses data mining algorithm approach that is weighted frequent itemsets. Weighted frequent itemsets are stock data separation techniques that aim to find a relationship or correlation on a set of datasets to be selected. The dataset used for stock portfolio selection is taken from Yahoo Finance (2018), the data used is taken from January 1, 2008 to December 31, 2017. Testing is done by setting a minimum return of 3%, 4%, 5%. For selected itemsets of stock, it consists of many stocks that exceed the minimum return and diversified in different sectors. From the results of the tests performed, the performance of the stock portfolio obtained exceeds the JCI (Composite Stock Price Index) based on the scenario periodically by using updated data.

Keywords: diversification, stock portfolio, weighted frequent itemsets.