

Requirements Specification

1. Functional Requirements

- 1.1. The system shall automatically retrieve daily stock data for all issuers listed on the Macedonian Stock Exchange (MSE), using an automated process to extract the list of valid issuers from the MSE webpage.
- 1.2. The system shall process raw data to ensure that only relevant stock information is retained and that all data entries are correctly formatted.
- 1.3. The system shall update the database with newly fetched data, combining it with existing records, ensuring there are no duplicates and maintaining data integrity.
- 1.4. The system shall support exporting the stock data to CSV format for further analysis, allowing users to save data for offline access.
- 1.5. The system shall provide basic data analysis features, such as calculating daily price changes, volume trends, and other stock metrics to support decision-making.
- 1.6. The system shall detect and log errors in data retrieval or processing, providing meaningful error messages for troubleshooting and recovery.

2. Non-Functional Requirements

- 2.1. The system shall ensure that stock data retrieval, processing, and updates happen with minimal delays in the user interface.
- 2.2. The system shall be designed to handle large amounts of data, supporting the addition of new issuers and the growth of historical data.
- 2.3. The system shall be compatible with multiple operating systems, such as Linux, macOS, and Windows, ensuring accessibility.
- 2.4. The system should be highly available and capable of recovering gracefully from errors, ensuring no data is lost and no processing is corrupted in case of failure.
- 2.5. The system shall ensure that all stock data is accurately recorded and formatted consistently, with no missing or corrupted data entries.
- 2.6. The system shall follow established software development practices and standards, ensuring that the codebase is clean, well-documented, and easy to maintain.