

# STOCK PORTFOLIO ANALYZER

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## Purpose of Document

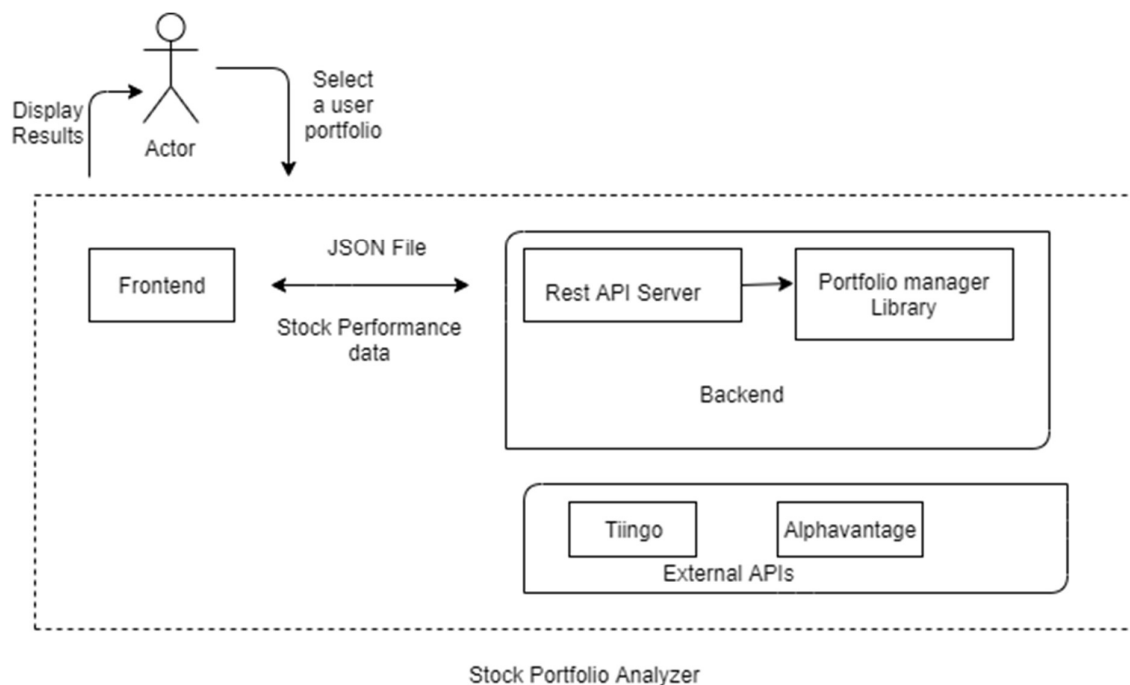
The purpose of the document is to understand the development of the Stock Portfolio Analyzer.

## About Stock Portfolio Analyzer

Stock Portfolio Analyzer is used by portfolio managers to assist clients by analysing their stock portfolios and making buy/sell recommendations.

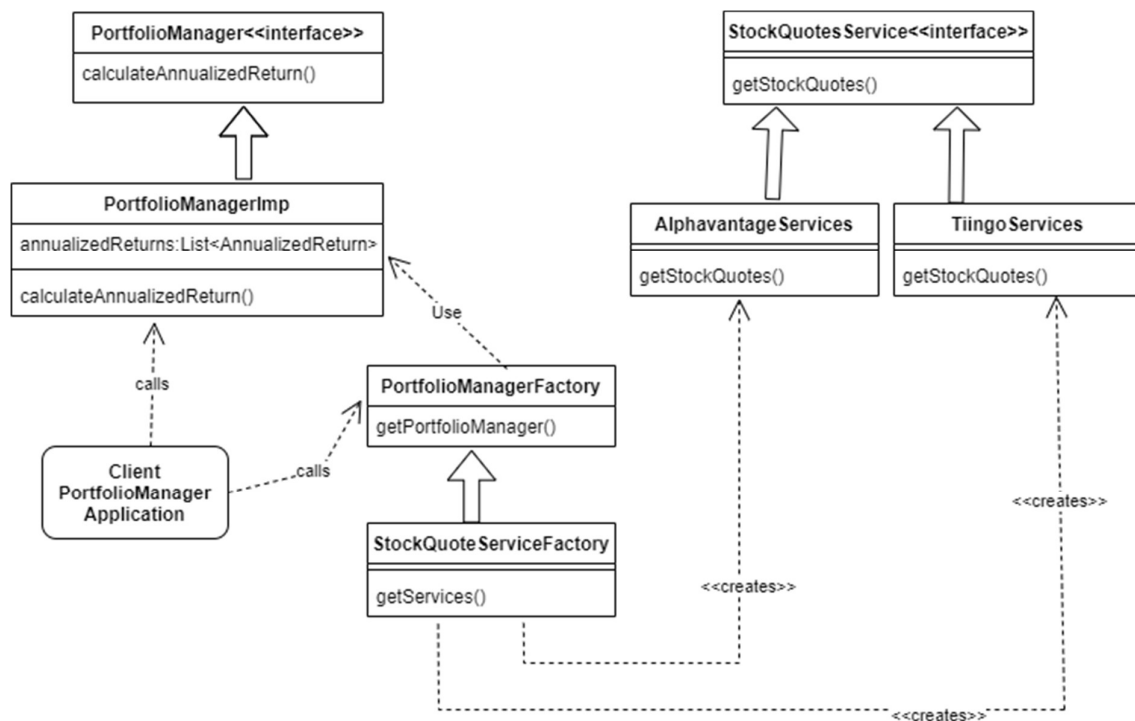
## Architecture

Below is the architecture of stock portfolio analyzer:



## UML Diagram

Below is the implementation details of the system:



## Implementation:

Parsed the data from the json file using Jackson to extract the symbols. With the help of REST API calls the stock quotes are retrieved for the extracted symbols on given historical closing date. Implemented core business logic in Java to find the annual returns. Refactored the code to use Java Interfaces, Implementations, and Factory patterns. Used gradle to share the code as a library to a Maven repository so that the frontend can use it as a library. Integrated a new service provider to add support for multiple stock quote services without any code duplication using the flexibility of interfaces. Added checked exceptions to improve the debuggability of the code. Used concurrency to improve the code performance and improve end-user experience.