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Stock Exchange App
Supplementary Specification

Version 1.0

Revision History

Date	Version	Description	Author
18/MAR/2019	1.0	Initial Requirements Statement	Horea-Șerban Popa

Table of Contents

1. Introduction 4

2. Non-functional Requirements 4
   - 2.1 Availability 4
   - 2.2 Performance 4
   - 2.3 Security 4
   - 2.4 Testability 4
   - 2.5 Usability 5

3. Design Constraints 5

Supplementary Specification

1. Introduction

The Supplementary Specification captures the system requirements that are not readily captured in the use cases of the use-case model. Such requirements include:

- Legal and regulatory requirements, including application standards.
- Quality attributes of the system to be built, including usability, reliability, performance, and supportability requirements.
- Other requirements such as operating systems and environments, compatibility requirements, and design constraints.

2. Non-functional Requirements

2.1 Availability

The system is expected to work 99.0% all time. The 1.0% can appear if there are any technical difficulties of there are some problems with the stock market (check Black Monday). This time is used for the problems to be fixed or bring updates to the application.

2.2 Performance

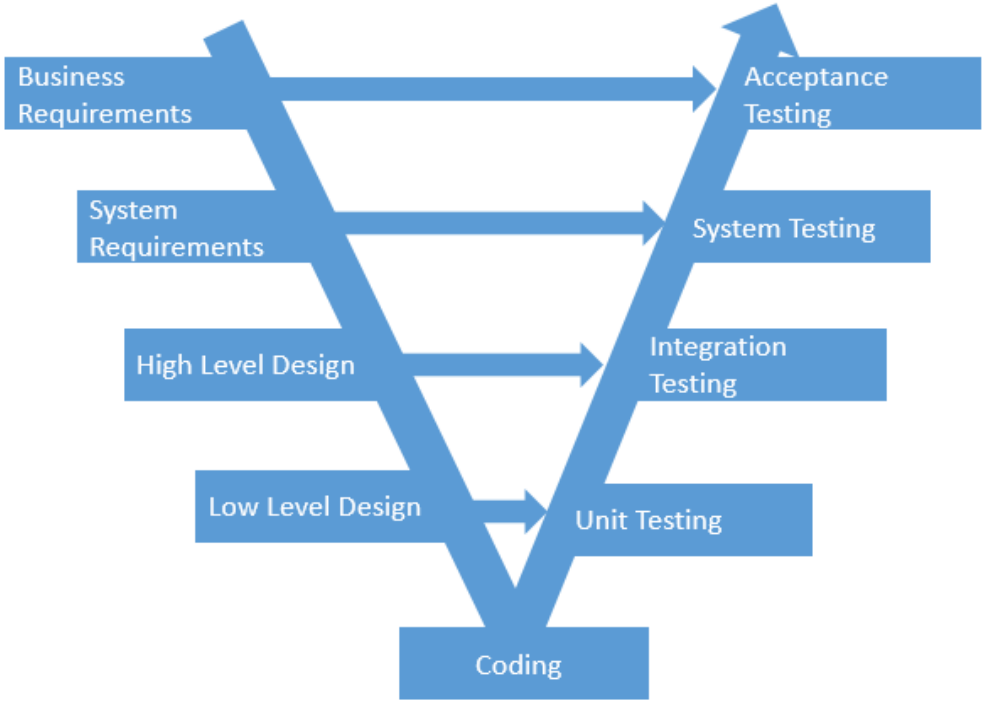
The app will perform as well as the internet connection is. The stock market is accessed using the internet and online payments. This is a very important factor of the application. The worst case scenario, the internet connection is bad and the response time can go up to 10 seconds for on task, otherwise it should be 1 second.

2.3 Security

Being an online service which has access to the users' private information and credit card, the passwords will not be kept in plain text and for the web security, use https encrypted connections.

2.4 Testability

The business logic of the application must be tested independently from the user interface. We will employ V-Model testing as illustrated in **Error! Reference source not found.**. We aim to have over 90% test coverage, through unit a nd integration tests. With respect to manual testing, the system will log all information that is not displayed in the user interface, so that the system is fully observable and testable.

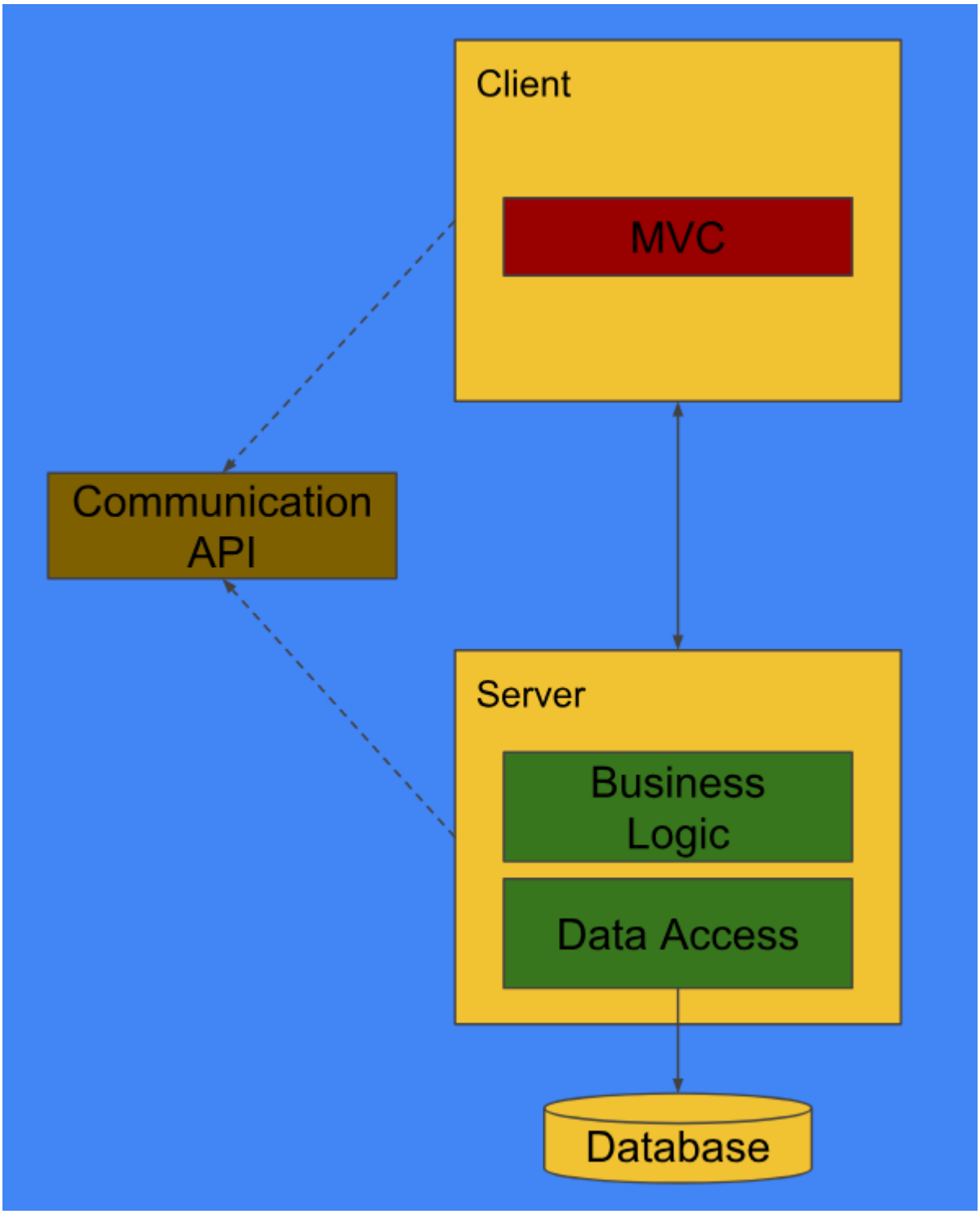


2.5 Usability

The user can navigate through the stock market for as long as he wants. The process of buying/selling stocks should be very fast, let's say that for a good usability the desired goal should be in under 16 mouse clicks.

3. Design Constraints

The system is constrained to use Java 8 as implementation language. The software development process will be the Rational Unified Process (RUP), tailored to fit the team and the project. The conceptual architecture of the system will be a client server as illustrated in **Error! Reference source not found.**. The required development tools are e ither Eclipse IDE or IntelliJ IDEA. In terms of libraries we will use: JavaFX, Hibernate, JDBC and GSON.


Client
MVC
Communication API
Server
Business Logic
Data Access
Database