**School of Electrical Engineering, Belgrade**

**Principles of Software Engineering (SI3PSI)**

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Description automatically generated

GoldenView

Specification of use case scenario of buying and selling assets

Version 1.0

Team Terminal

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# History of changes

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| --- | --- | --- | --- |
| Version no. | Date of release | Description | Author |
| 1.0 | 23.3.2023. | Initial version | Aleksandar Radenković |
| 1.1 | 16.6.2023. | Updated based on implementation. | Aleksandar Radenković |
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# Introduction

## Summary

Defining the use case scenario of buying and selling assets, with examples of the corresponding website pages included.

## Purpose of the document, and target group

The document is intended to be used by all members of the project team involved in developing and testing the project and may also be used in writing user manuals.

## References

1. Project.
2. Guidelines for writing functional scenario specifications.

## Open questions

No open questions currently.

# Scenario of purchasing assets

## Description

Basic users and Brokers can send out requests to purchase certain assets at certain value. All their finished transactions are available within their portfolio, as well as the sent out requests.

## 2.2 Flow of Events

### 2.2.1 User purchases an asset

1. User sets the quantity and price range at which they are willing to purchase the asset they are currently viewing.
2. In case the user is a Broker and is making a purchase for their client (Basic user) then the user enters the ID of a current contract they have with that client.
3. User confirms they want to make the purchase.
4. System registers the request for purchase.
5. User is notified of successfully creating a purchase request and can view and edit that purchase request in their portfolio.
6. Asset is sold to the user until the quantity is satisfied.
   1. Sales requests with matching price ranges get paired up with this purchase request.
   2. Funds and assets are transferred.
   3. Purchase and sale requests’ users are notified.
7. User goes to their portfolio and sees the finished purchase request information: quantity, total value of all transactions that make up the request in USD.

### 2.2.2 *User modifies the price range*

1. User locates the purchase request in their portfolio and modifies the price range at which they are willing to buy.
2. System updates the price range.
3. User is notified of successfully updating a purchase request.
4. Same as step 6. in 2.2.1
5. Same as step 7. in 2.2.1

### 2.2.3 *User cancels the purchase*

1. User locates the purchase request in their portfolio and clicks on cancel next to their purchase request.
2. Request is removed from the system.
3. User is notified of successfully stopping a request from matching it any further and renders it as carried out.

## 2.3 Special requirements

This functional requirement must be extremely secure as transactions are irreversible. Every function must be thoroughly tested.

## 2.4 Prerequisites

The user is currently viewing an asset.

The user has sufficient funds to make the purchase.

## 2.5 Consequences

The user will now have in their account the assets they have purchased. By the time the transaction is complete, funds will have been transferred from the user’s account into the account of users whose assets was purchased. The transactions will be stored in portfolios of all involved users.

# Scenario of selling assets

## Description

Basic users and Brokers can send out requests to sell certain assets at certain value. All their finished transactions are available within their portfolio, as well as the sent out requests.

## 3.2 Flow of Events

### User sells an asset

1. User sets the quantity and price range at which they are willing to sell the asset they are currently viewing.
2. In case the user is a Broker and is selling an asset in name of their client (Basic user) then the user enters the ID of a current contract they have with that client.
3. User confirms they want to sell.
4. System registers the request for sale.
5. User is notified of successfully creating a sales request and can view and edit that purchase request in their portfolio.
6. Asset keeps being sold until sold out in previously set quantity.
   1. . Purchase requests with matching price ranges get paired up with this sale request.
   2. Funds and assets are transferred.
   3. Purchase and sale requests’ users are notified.
7. Users click on the notification and views their portfolios and the finished transaction within them.

### 3.2.2 *User modifies the price range*

1. User locates the sales request in their portfolio and modifies the price range at which they are willing to sell.
2. System updates the price range.
3. User is notified of successfully updating a sales request.
4. Same as step 6. in 3.2.1
5. Same as step 7. in 3.2.1

### 3.2.2 *User cancels the sale*

1. User locates the sales request in their portfolio and clicks on cancel next to their sales request.
2. Request is removed from the system.
3. User is notified of successfully stopping a request from matching it any further and renders it as carried out.

## 3.3 Special requirements

This functional requirement must be extremely secure as transactions are irreversible. Every function must be thoroughly tested.

## 3.4 Prerequisites

The user is currently viewing an asset.

The user has enough of the asset to sell for the transaction to be possible.

## 3.5 Consequences

The user will now have in their account the funds they have received. By the time the transaction is complete, assets will have been transferred from the user’s account into the accounts of users who made the purchase. The transactions will be stored in portfolios of all involved users.