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| **Software Engineering and Practice**  **Assignment #1** |



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| **Group** | 10 |
| **Members** | JEON JEHUN, BOHM NATALIE BEATRICE |

1. **User Stories**

1.

As a User, I want to sign in, so I can use the website.

As a User, I want to sign out, for security reasons.

As a User, I want to sign up, so I can use the service provided by the website.

2.

As a visitor of the website, I want to see current coin price, so I know the price.

As a visitor of the website, I want to see the price trend, so I can expect where the price will go.

3.

As a website, I want to assigns newly created account 0 won and 0 coins

4.

As a marketplace, I want to have 100 coins priced at 100 won to make easier to carry out transaction

5.

As the site, I want to update the number of unsold remaining coins when a user buys a coin from the site, so I have an overview of the remining coins.

As a User, I want to sell coins, so I can make money.

As a User, I want to buy coins, so I have coins.

As a User, I want to post the number of coins and their selling price, so I can offer them to other users.

As the site, I want to update the seller and buyer coin information when a transaction took place, so all information is always up to date.

As a site, I want to make buyers buy all the coins the seller posts so I can make transaction atomic.

As a site, I want not to allow users to sell to the marketplace so I can make selling coins only occur between users.

6.

As a User, I want to add/withdraw money from my account, so I can use the money to my liking.

7.

As the site, I want to post current coin price and available coins so users can buy them. (equals to the first line of 5)

8.

As the site, I want to post the price, so it can be seen by users.

As a site, I want to post the users coin selling posts, so it can be seen by other users.

9.

As a site, I want to show the development of the coin price in a graph or table, so the changes can be traced.

1. **Use Cases**

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| **Name of Use case** | Sign Up |
| **Date Created** | 23/05/05 |
| **Description** | Users creates an account |
| **Actor** | User, Website/Marketplace, Database |
| **Precondition** | 1. Website is running 2. User has an Email |
| **Post condition** | 1. User has an account (Username, Password) 2. User has 0 won, 0 coin balance. |
| **Flow** | 1. User presses Sign Up button. 2. User has to give a Username. 3. User has to give a Password. -> Password specifications. 4. User has to give a valid Email. 5. User presses Create Account button. 6. Website checks, if the input is valid. 7. Website stores the data. 8. Website assigns the user 0 won and 0 coins. 9. Screen shows “Account created successfully” |
| **Exception** | 1. In step 6, the input is not valid:    1. Show Error message, where the input is not valid.    2. The User has to redo from step 2. 2. In step 7, if the storing fails:    1. Show message, that the account couldn’t be created.    2. End the session. |
| **Additional Requirements** | 1. All alert messages should have OK and Cancel option. |

HOON PARTS:

1.

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| **Name of Use case** | Seeing the current coin price |
| **Date Created** | May 9, 2023 |
| **Description** | Users see the current coin price |
| **Actor** | User, Website/Marketplace, Database |
| **Precondition** | 1. Website is running 2. User enters the site without errors |
| **Post condition** | 1. User see the current coin price |
| **Flow** | 1. User requests site access 2. Server allow it 3. User enters the site 4. User see the current coin price |
| **Exception** | 1. In step 1,2,3, network not connected:    1. Show Error message.    2. The User refreshes the site    3. Go to step 1 2. In step 4, the website fails to post the price:    1. Retry to load the data    2. If fail to load, show error message.    3. The user refreshes the site    4. Go to step 1 |
| **Additional Requirements** | 1. The users can access to multiple sites at a time |

2.

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| **Name of Use case** | Updating remaining coins |
| **Date Created** | May 9, 2023 |
| **Description** | When user buy coin from the site, update the remaining coins |
| **Actor** | User, Website/Marketplace, Database |
| **Precondition** | 1. Website is running 2. The user is signed in 3. The user’s account balance is more than the number of coins the user wants to buy |
| **Post condition** | 1. The user receives coins. 2. The user’s account balance gets smaller by the transaction price 3. Coins the marketplace has are updated |
| **Flow** | 1. The user offers transaction to marketplace 2. The marketplace checks whether the offer is valid or not 3. The users pay the price and receive coins 4. The marketplace updates its number of coins held 5. The site shows the coins marketplace has |
| **Exception** | 1. In step 2, the user doesn’t have enough money:    1. reject the transaction    2. Go to step 1 with a small-scale proposal 2. In step 2, the user requests more coins than marketplace has:    1. reject the transaction    2. Go to step 1 with a small-scale proposal |
| **Additional Requirements** | 1. Transaction occurs with an integer coin |

3.

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| **Name of Use case** | Posting selling coins |
| **Date Created** | May 9, 2023 |
| **Description** | Users want to sell coins |
| **Actor** | User, Website/Marketplace, Database |
| **Precondition** | 1. Website is running 2. The user is signed in 3. The user sells at least one coin 4. Coins held by the sellers are more than the seller wants to sell |
| **Post condition** | 1. The offer is on the site where buyer can see 2. The offer has information about number of coins and selling price. |
| **Flow** | 1. The user enters the site 2. The user presses POST button 3. The user gives a number of coins he/she wants to sell 4. The user gives the price of them 5. Website posts it sorted by price |
| **Exception** | 1. In step 3, the user doesn’t have enough coins:    1. Show error message    2. Go to step 3 with new amount input message 2. In step 5, if there are same price offers    1. Order it by date |
| **Additional Requirements** | 1. Seller posts integer number of coins |

When you test this case, please check case that user posts several offers

(e.g. user has 10coins, and sell 5coins, 5coins , 5coins. In this scenario it would work but it’s not rght)

4.

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| **Name of Use case** | Updating seller’s and buyer’s information up to date |
| **Date Created** | May 9, 2023 |
| **Description** | Users want to sell coins |
| **Actor** | Website/Marketplace, Database |
| **Precondition** | 1. Website is running 2. Transaction took place |
| **Post condition** | 1. In seller’s account, balance increase, number of coins decrease 2. In buyer’s account, balance decrease, number of coins increase 3. On post board, the offer is deleted |
| **Flow** | 1. Transaction took place 2. The website updates seller’s and buyer’s account as a transaction 3. The website deletes completed one on the post board |
| **Exception** | 1. In step 2, balance and number of coins cannot be negative:    1. If it is, reject the transaction    2. Show message transaction failed. |
| **Additional Requirements** | 1. Updating process should be done as soon as transaction take place |