Functional Requirement

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| Use Case | Login Account |
| Actor(s) | FundFair App User |
| Description | FundFair App User key in the userID and password to log in as a user to the FundFair application. |

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| Use Case | View Company and Stock Details |
| Actor(s) | FundFair App User |
| Description | FundFair App User can view a list of stock and descriptions for each stock and company to make decision and analysis based on the details given. |

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| Use Case | Purchase Stock |
| Actor(s) | FundFair App User |
| Description | After viewing the stock, FundFair App User can purchase any stock based on their decision. |

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| Use Case | View Portfolio |
| Actor(s) | FundFair App User |
| Description | FundFair App User can view their profit and loss every time they end a round. |

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| Use Case | Sell Stock |
| Actor(s) | FundFair App User |
| Description | FundFair App User wants to sell stock that purchased. |

Use Case Diagram

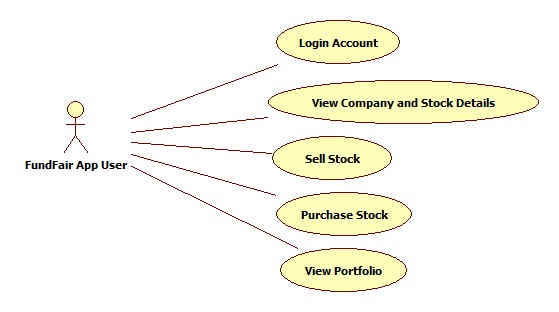


Figure 1 Use Case Diagram

Expanded Use Case

Expanded Use Case – Login Account

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| **Use Case 1** | Login Account |
| **Goal in Context** | To allow app users to login FundFair application with their accounts |
| **Primary Actor**  **Secondary Actor** | FundFair App User  (none) |
| **Trigger** | When the FundFair App User wants to login to the FundFair application. |
| **Related Use Cases** |  |
| **Typical Course of Events**  **Actor Action** | **System Response** |
| 1.      This use case begins when FundFair App User has an account and wants to login to the FundFair application. | 2. A login form will be displayed for the user to enter userID and password. |
| 3.      The FundFair App User enters the userID, password. | 4. The system will validate the userID and password entered and pop up a message showing “Login Successful”. $100,000 of virtual money will be allocated to the user immediately after the login. |
| Alternative Course of Events  Line 3a. If userID is not found or it is found but does not match with the password, cancel the use case.  Line 3b. If the system found the entered information is matched with an existing user account, the user data of that particular account will be loaded. | |

Expanded Use Case – Register

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| **Use Case 1** | Register |
| **Goal in Context** | To allow a non-app user to create an account to access to the FundFair application. |
| **Primary Actor**  **Secondary Actor** | FundFair App User  (none) |
| **Trigger** | When the FundFair App User wants to log in but they do not have a FundFair account. |
| **Related Use Cases** |  |
| **Typical Course of Events**  **Actor Action** | **System Response** |
| 1.      This use case begins when the user is not logged in to the application and goes to the login page. | 2. The system prompts the user to enter a username and password for login and display a button to register a new account. |
| 3.      The user selects registration option by tapping on the “Sign up” button. | 4. The system will prompt the user to enter username and password. |
| 5. The user enters the username and password. | 6. The system will verify username and password entered by the user and creates an account. A registration successful message will be displayed. |
| Alternative Course of Events       Line 4a. If user tap on “Cancel” button, cancel the use case.  Line 6a. If the username and password entered by user is not verified by the system  Line 3b. If the system found the entered information is matched with an existing user account, the user data of that particular account will be loaded. | |

Expanded Use Case – View Company and Stock Details

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| **Use Case 2** | View Company and Stock Details |
| **Goal in Context** | To allow users to view a list of stock with details, the price and the background of the company. |
| **Primary Actor**  **Secondary Actor** | FundFair App User  (none) |
| **Trigger** | When the FundFair App User wants to view stocks available and tap on the “Trading Centre” button. |
| **Related Use Cases** |  |
| **Typical Course of Events**  **Actor Action** | **System Response** |
| 1.   This use case begins when FundFair App User wants to view stock details, price and company background. |  |
| 2.  The FundFair App User tap on “Trading Stock Center”. | 3. The system will display stocks that available. |
| 4.   FunFair App User selects a stock from “Trading Stock Center”. | 5. Company information will be displayed, for example, currentPricePerShare, dailyPeak, weeklyPeak, amountOfShare, companyBackgroundInfo, totalLotAvailable and marketCapital. |
| Alternative Course of Events | |

Expanded Use Case – Purchase Stock

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| **Use Case 3** | Purchase Stock |
| **Goal in Context** | Allow FundFair App User to purchase stock. |
| **Primary Actor**  **Secondary Actor** | FundFair App User  (none) |
| **Trigger** | When the FundFair App User wants to purchase stock after viewing the stock details and tap on the “Place Buy Order” button. |
| **Related Use Cases** | View Company and Stock Details |
| **Typical Course of Events**  **Actor Action** | **System Response** |
| 1.   This use case begins when FundFair App User wants to purchase stock. |  |
| 2.  The FundFair App User tap on “Place Buy Order” button. | 3. The system will prompt the user to select a number of lot they want to purchase. |
| 4. FundFair App User selects a number of Lot they want to purchase and proceed. | 5. A confirmation message box will be popped out to get user confirmation. |
| 6. FundFair App user tap on “Yes”. | 7. Message “Purchase Successful” will be shown after the system finish processing the request. The purchase history will be updated in the portfolio. |
| Alternative Course of Events  Line 3a. If the number of lot entered exceeds the limitation of virtual money owned by the user, cancel the use case.  Line 3b. If user enter number of lot exceeds the total lot available, cancel the use case.  Line 6a. If app user tap on “No”, cancel the use case. | |

Expanded Use Case – View Portfolio

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| **Use Case 4** | **View Portfolio** | |
| **Goal in Context** | To display stocks details that user purchased before. | |
| **Primary Actor**  **Secondary Actor** | FundFair App User  (none) | |
| **Trigger** | When the FundFair App User wants to view their portfolio. | |
| **Related Use Cases** |  | |
| **Typical Course of Events**  **Actor Action** | **System Response** | |
| 1.   This use case begins when FundFair App User wants to view and track the stock they purchased. | |  |
| 2.  The FundFair App User tap on “My Portfolio” button. | | 3.  A purchase history showing the current status of each stock  will be displayed. |
| Alternative Course of Events | | |

Expanded Use Case – Sell Stock

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| **Use Case 5** | **Sell Stock** |
| **Goal in Context** | Allow the user to sell purchased stock. |
| **Primary Actor**  **Secondary Actor** | FundFair App User  (none) |
| **Trigger** | When the FundFair App User wants to sell their stocks. |
| **Related Use Cases** | View Portfolio |
| **Typical Course of Events**  **Actor Action** | **System Response** |
| 1.   This use case begins when FundFair App User wants to sell the stock they purchased. |  |
| 2.  The FundFair App User tap on “Place Sell Order ” button. | 3.   The system will prompt the user to select number of lot they want to sell. |
| 4. FundFair App User selects number of Lot they want to sell and proceed. | 5. A confirmation message box will be popped out to get user confirmation. |
| 6. FundFair App User tap on “Yes”. | 7. Message “Sold Successful” will be shown after the system finish processing the request. The sold stock will be removed from the portfolio. |
| Alternative Course of Events  Line 4a. If the number of lot entered exceeds the number of lot that owned by the user, cancel the use case.  Line 6a. If app user tap on “No”, cancel the use case. | |