

## PROJECT PHASE 1: USE CASES

### Use Case 1

**Use case:** The user starts/plays the game

**Primary actor:**

- User

**Goal in Context:**

- Start the game

**Preconditions:**

- The user has successfully downloaded and run the game files

**Trigger/Scenario:**

1. Display the play game screen to the user
2. The user clicks “Play Game”
3. Display the rules screen to the user
4. The user hits the spacebar
5. Display the game board

**Exceptions:**

- The user does not press any buttons
- The user presses the wrong button

**Priority:** Essential

**Frequency of use:** Once

## Use Case 2

**Use case:** The character collects rewards/bonuses

**Primary actor:**

- Character (Frodo) via the user

**Goal in Context:**

- Collect items that increase the score
- When all items are collected, the user can win the game by reaching Mount Doom

**Preconditions:**

- The character's score is at least zero

**Trigger:**

- The character enters the same cell as a reward/bonus

**Scenario:**

1. The user moves character into the same cell as a reward/bonus
2. The score increases depending on the item the character picks up:
  1. Rewards
    1. Elven bread: +20 points
    2. Water: +10 points
    3. Weapons: +50 points
  - b. Bonuses
    - i. Samwise Gamgee: +100 points
    - ii. Gandalf: +100 points
3. The reward/bonus disappears from the board

**Exceptions:**

- The user exits the game manually
- The character is hit by an enemy causing their score to drop below zero
- The character walks into the same cell as a reward and an enemy
- The character moves into a punishment cell (lava)

**Priority:** Moderate

- It should be implemented after basic character movement

**Frequency of use:** Frequent

### Use Case 3

**Use case:** The character collides with enemies

**Primary actor:**

- Character (Frodo) via the user
- Enemies (Orcs, Shelob, Eye of Sauron, Witch King, Gollum)

**Goal in Context:**

- Keep the score greater than or equal to zero by avoiding enemies

**Preconditions:**

- The character's score is at least zero

**Trigger:**

- The character enters the same cell as an enemy entity

**Scenario:**

- The user moves the character into the same cell as an enemy entity
- The score decreases depending on who the character collides with:
  - i. Orcs (moving): -30 points
  - ii. Shelob (moving): -50 points
  - iii. Eye of Sauron (stationary): -50 points
  - iv. Witch King (moving): -80 points
  - v. Gollum (moving): -150 points
- The enemy disappears from the screen
- Check if the score is greater than zero
- If the score is less than zero, end the game and display the losing screen
- If the score is greater than or equal to zero, continue the game

**Exceptions:**

- The user exits the game manually
- The character walks into the same cell as a reward and an enemy
- The character moves into a punishment cell (lava)

**Priority:** Moderate

- It should be implemented after basic character movement

**Frequency of use:** Frequent

## Use Case 4

**Use case:** The character collides with obstacles

**Primary actor:**

- Character (Frodo) via the user
- Obstacles (Rocks, Lava)

**Goal in Context:**

- Avoid obstacles

**Preconditions:**

- The character's score is at least zero

**Trigger:**

- The character tries to enter the same cell as an obstacle

**Scenario:**

- The user tries to move the character into the same cell as an obstacle
- Check which obstacle
  - If the obstacle is a rock, prevent the character from moving in that direction
  - If the obstacle is lava, end the game and display the losing screen

**Exceptions:**

- The user exits the game manually
- The character is hit by an enemy causing their score to drop below zero
- The character walks into the same cell as a reward and an enemy
- The character moves into a punishment cell (lava)

**Priority:** Moderate

- It should be implemented after basic character movement

**Frequency of use:** Frequent

## Use Case 5

**Use case:** The Character arrives at Mount Doom

**Primary actor:**

- Character (Frodo) via the user

**Goal in Context:**

- Arrive at Mount Doom with a positive score after collecting all the scattered rewards to win the game

**Preconditions:**

- The character's score is at least zero

**Trigger:**

- The character makes it to Mount Doom

**Scenario:**

1. The user moves character into Mount Doom
2. Check if all rewards were gathered
3. End the game
  - a. Win condition:
    - If the user collected all the scattered rewards, display the win screen with the time, score, and option to play again
  - b. Lose condition:
    - If the user did not collect all the scattered rewards, display the lose screen with the option to play again

**Exceptions:**

- The user exits the game manually
- The character is hit by an enemy causing their score to drop below zero

**Priority:** Essential

**Frequency of use:** Infrequent