

## **Use cases**

### **Use case: Thief movement**

Primary actor: thief

Goal in context: moving the thief around the board

Preconditions:

- There must exist a cell where the thief can move to

Trigger: either pressing W, A, S, D on the keyboard

Scenario:

1. Pressing W will move the thief up
2. Pressing A will move the thief left
3. Pressing S will move the thief down
4. Pressing D will move the thief right

Exceptions:

1. Any key other than W, A, S, D is pressed

Priority: high priority

Frequency of Use: high

### **Use case: Thief walks into fire**

Primary actor: thief

Goal in context: walking into the same cell as the fire

Preconditions:

- There must be a cell with fire
- The thief must be in a cell without fire

Trigger: the thief walks into the same cell as the fire

Scenario:

1. The thief moves to a cell with fire
2. Player takes damage

Exceptions:

1. The thief is already in a cell with fire
2. Invalid movement (check "Thief movement" use case)

Priority: medium priority

Frequency of Use: medium

### **Use case: Thief walks into cop**

Primary actor: thief

Goal in context: walking into the cell the cop is in

Preconditions:

- There exists a cop in a cell

- The thief is not in the same cell a cop is in
- The game is not over.

Trigger: the thief walks into the same cell as a cop

Scenario:

1. The thief moves to a cell with a cop
2. Player dies, game ends (0 health)

Exceptions:

1. Invalid movement (check "Thief movement" use case)

Priority: high priority

Frequency of Use: medium

#### Use case: Thief walks into barrier

Primary actor: thief

Goal in context: thief walks into barrier

Preconditions:

- There exists a cell with a barrier

Trigger: thief walks into same cell as barrier

Scenario:

1. The thief is in an adjacent cell and tries to move to a cell with a barrier
2. Nothing happens; thief remains in same spot

Exceptions:

1. Invalid movement (check "Thief movement" use case)

Priority: high priority

Frequency of Use: medium

#### Use case: Thief walks into cash reward

Primary actor: thief

Goal in context: thief walks into cash reward

Preconditions:

- There exists a cell with a cash reward

Trigger: thief walks into same cell as cash reward

Scenario:

1. The thief moves to a cell with a cash reward
2. Player gets extra points

Exceptions:

1. Invalid movement (check "Thief movement" use case)

Priority: medium priority

Frequency of Use: medium

Use case: Thief reaches 0 health

Primary actor: thief

Goal in context: the thief reaches zero health so we need to implement the result, which is death

Preconditions:

- The thief is not at 0 health
- There are enough fires to allow the thief to reach 0 health

Trigger:

- The thief walks into enough fires to bring health to 0
- The thief gets caught by a cop

Scenario:

1. The thief is in an adjacent cell and tries to move to a cell with an item that reduces health
2. The thief loses health
3. After losing health, the health score is equal or below 0.

Exceptions: none

Priority: low priority

Frequency of Use: medium

Use case: User starts the game through the menu

Primary actor: the user

Goal in context: get user input to start the game

Preconditions:

- User is given some UI to start game

Trigger: user presses appropriate button through UI to start the game

Scenario:

1. User's display is the main menu
2. User enters input through UI to start game

Exceptions:

1. User input is not valid
2. User quits the game from start menu

Priority: very high priority

Frequency of Use: medium

Use case: User pauses the game

Primary actor: the user

Goal in context: get user input to pause the game

Preconditions:

- User is given some UI to pause the game

Trigger: user presses appropriate button through UI to pause the game

Scenario:

1. User presses pause button  
Game stays paused until resume or quit

Exceptions: none

Priority: low

Frequency of Use: low

#### Use case: User resumes the game

Primary actor: the user

Goal in context: get user input to resume the game

Preconditions:

- User is given some UI to resume the game

Trigger: user presses appropriate button through UI to resume the game

Scenario:

1. User presses resume button
2. The game is unpaused

Exceptions: none

Priority: low

Frequency of Use: low

#### Use case: User quits the game

Primary actor: the user

Goal in context: user quits the game

Preconditions:

- User is given some UI to quit game

Trigger: user presses appropriate button through UI to quit game

Scenario:

1. User presses the quit button
2. The game stops and the application is closed

Exceptions: none

Priority: low

Frequency of Use: medium