

Use Case 1. Initializing Game

Primary Actor: Player

Goal in Context: Initializing Thief.

Preconditions: System has Thief installed on hard drive and wants to play Thief.

Trigger: Player selects appropriate options to load into level

Scenario:

1. Thief application is open, main menu is being displayed
2. Player Chooses a main menu option - Play Game, View High Score, Exit
3. Program continues to the use case selected by Player

Use Case 2. Level setup

Primary Actor: Player

Goal in context: Interface which allows the Player to choose their desired difficulty and extra settings

Preconditions: Thief program is already running

Trigger: Player chooses "Play Game" from main menu

Scenario:

1. Player chooses Difficulty (Difficulty is read from Player input)
2. Player Chooses to add additional guards
3. Player chooses to add a time limit
4. Player chooses to add soundfx
5. Player chooses to add Music
6. UI is updated to reflect the Player's desired settings.
7. System waits for any further inputs from Player

Exceptions:

1. Player changes Difficulty
 - a. Difficulty is adjusted accordingly
2. Player toggles time limit
 - a. Time limit is adjusted accordingly
3. Player toggles soundfx
 - a. Soundfx are adjusted accordingly
4. Player toggles music
 - a. Music is adjusted accordingly
5. Player selects "Return to Main Menu"
 - a. UI is updated with the main menu

Use Case 3. View High Score

Primary Actor: Player

Goal In Context: Display three previous highest scores to Player

Preconditions: Thief is already running

Trigger: Player selects "View High Scores" from main menu

Scenario:

1. Read stored High Scores
2. Display top 3 Highest Scores
3. Return to main menu

Exceptions:

1. No previous games have been played, therefore such data file does not exist
 - a. Create data file which displays three scores containing all zeros

Use Case 4. Playing Thief (movement)

Primary Actor: Player

Goal in context: Collect all gold coins in the level and escape the maze while avoiding guards

Preconditions: Player has chosen to begin a new game

Trigger: Player pushes “Up, Down, Left, Right” respective keys to move Thief in the desired direction.

Scenario:

1. Player presses a movement key
2. Thief moves according to the player's input

Exceptions:

1. A guard moves into the space containing Thief before the Player moves
 - a. Game over screen is displayed (See End Game Use Case)
2. Player moves Thief into a space that has a wall
 - a. Thief does not move and waits for the Player's next input
3. Player moves Thief into a space containing a gold coin
 - a. Thief moves into the space
 - b. The coin is removed from the GUI
 - c. 10 points are added to the total score that is displayed on the GUI
4. Player Moves Thief into a space containing a treasure chest
 - a. Thief moves into the space
 - b. The chest is removed from the GUI
 - c. 30 points are added to the total score that is displayed on the GUI
5. Player moves Thief into a space containing a guard
 - a. Game over screen is displayed (See End game Use Case)
6. Player moves Thief into a space containing a guard station
 - a. If the Player's score value is greater than or equal to 20
 - i. The guard station is updated on the GUI to a valid entrance state (green)
 - ii. 20 points are subtracted from Player's score
 - iii. Thief moves into the space
 - iv. The guard post is removed from the GUI
 - b. If the Player's score value is less than 20
 - i. The guard station is updated on the GUI to an invalid entrance state (red)
 - ii. 20 points are subtracted from Player's score
 - iii. Game over screen is displayed (See End Game Use Case)
7. Player moves into space containing exit:
 - a. Player has collected all gold coins in the maze
 - i. Player completes level
 - ii. Victory Screen is displayed (See End Game Use Case)
 - b. Gold coins remain present in the maze
 - i. System awaits next input from Player

Use Case 5: End Game

Primary Actor: Player

Goal in context: When the game ends, the program follow steps depending on the actions of the player

Precondition: Player has won the level, lost, or quit.

Trigger: Player has won, lost or hit return to menu.

Scenario:

1. Player has exited the level.
 - a. Player has completed the level
 - b. Player has lost the level
 - c. Player has quit by returning to main menu and score is set to 0
2. Score is displayed
 - a. Player's score is higher than one of their top 3 scores
 - i. High Scores are updated and displayed
3. Player is returned to main menu