Game Description

Our game will be a Maze type bank robbery where the main character controlled by the user(the bank robber) will be running through the maze with the goal of getting to the escape helicopter with enough gas to make it fly. This must all be done without colliding with too many barriers or getting caught by the police. The police will move closer to the player after every tick of the clock(after each move).

The player must then try to get to the escape helicopter with as much gas as possible. There will be two main categories of points that the player can gain by going through the maze. One being the fuel needed for the helicopter in order to escape. The second way the user can gain points in the game is to take a path through the maze that would coincide with the randomly placed bags of money(rewards) in the maze. Once at the escape helicopter the amount of money collected and the speed at which it was all done will determine the players score.

The objective of the game is for the player to take a path in the maze that ensures that the player does not run into the police while also collecting as many of the randomly placed money rewards as possible. Furthermore, the player will lose a set quantity of health every time there is a collision with one of the static barriers placed down by the police. If the player collides with other barriers other than the ones placed down by the police(ex. Colliding with the maze walls) the player will not lose fuel but will lose the move for that turn.

Moreover inherently there will be an implicit timer on the game each round. As the player has to get to the escape helicopter after grabbing the required fuel, this faster the player can complete this, the more points they shall receive. If the player runs out of health before doing so then the player loses the game.

Other than the time restraint the player must also not get caught by (collide with) any of the moving police cars that get closer to the player after each move. If the player succeeds in doing so, by getting to the escape helicopter with all the fuel needed and without running out of time and health then the player wins the round.

Use case: Control the robber to escape from the maze through the keyboard

Iteration: 1, last modification: Feb 17 by group4.

Primary actor: Player.

Goal in context: Control the robber to avoid the police and escape successfully, and collect all the gas in the maze to let the helicopter take off.

Preconditions: Player must have a keyboard to control the robber.

Trigger: The player decides to play this game and click the “NEW GAME” button.

Scenario:

1. The player opens the game “Cops and Robbers”.

2. The game shows 3 buttons, they are“NEW GAME”, “Leaderboard” and “Options”.

3. The player clicks the “NEW GAME” button from the 3 buttons.

4. The game shows a maze with a robber, barriers, cops, and a helicopter.

5. The player presses “up”, “down”, “left”, “right” button to move the robber.

6. The game shows that the cops are chasing the robber.

7. The player collects all the gas and arrives at the helicopter without being caught by cops to escape successfully.

8. The game shows “Congratulations!!!”, and returns to step2.

Exception:

1. When the player presses “ESC” on the keyboard or clicks “PAUSE” when playing the game; see use case Pause the game to do some other functions.

2. When the player clicks the “Options” button rather than “NEW GAME”; see use case Adjust game settings.

3. When the player clicks the “Leaderboard” button rather than “NEW GAME”; see use case Check the leaderboard of the game.

Priority: High priority, should be implemented first.

When available: Second or third phase.

Frequency of use: Frequent.

Channel to actor: Via a computer with screen, mouse and keyboard.

Secondary actors: Game developer.

Channels to secondary actors:

1. Game developer: PC-based system.

Use case: Pause the game to do some other functions.

Iteration: 1, last modification: Feb 17 by group4.

Primary actor: Player.

Goal in context: Stop and restart/quit this game you are playing

Preconditions: Player must be playing the game.

Trigger: The player decides to stop the game for a break or wants to restart/quit the game.

Scenario:

1. The player presses “ESC” on the keyboard or clicks “PAUSE” when playing the game.

2. The game stops and shows 3 buttons “Resume”,”Rules”and “Quit ’’.

3. The player can click “Rules”, then the computer will show you the specific rules of this game.

4. After the player reads the rules, the player clicks the close button to let the computer go to step 2.

5. The player can click “Resume” to come back to the game they are playing.

6. Or the player can click “Quit” to give up the game they are playing.

7. The computer will show the screen that the game has not started yet.

Priority: Moderate priority, to be implemented after basic functions.

When available: Second or third phase.

Frequency of use: Frequent.

Channel to actor: Via a computer with screen, mouse and keyboard.

Secondary actors: Game developer.

Channels to secondary actors:

1. Game developer: PC-based system.

Use case: Adjust game settings.

Iteration: 1, last modification: Feb 17 by group4.

Primary actor: Player.

Goal in context: Adjust the keys to control the robber in the game.

Preconditions: Player must have a keyboard to control the robber.

Trigger: The player decides to use other buttons to control the robber's movement.

Scenario:

1. The player opens the game "Cops and Robbers".
2. The game shows 3 buttons.
3. The player clicks the "Options" button from the 3 buttons.
4. The game shows "up", "down", "left", "right" are the keys to move the robber.
5. The player clicks the "up" button to change the key to move up.
6. The computer shows "What do you want to replace this button with?".
7. The player presses "w" on the keyboard and clicks "yes".
8. The computer will show that "Now you can use w to move the robber up".
9. The game shows "w", "down", "left", "right" are the keys to move the robber.

Priority: Moderate priority, to be implemented after basic functions.

When available: Third phase.

Frequency of use: Infrequent.

Channel to actor: Via a computer with screen, mouse and keyboard.

Secondary actors: Game developer.

Channels to secondary actors:

1. Game developer: PC-based system.

Use case: Check the leaderboard of the game.

Iteration: 1, last modification: Feb 17 by group4.

Primary actor: Player.

Goal in context: Get the top 10 scores for this game.

Preconditions: Player must have a PC-based system to run this game.

Trigger: The player decides to check if his score is in the top ten?

Scenario:

1. The player opens the game “Cops and Robbers”.
2. The game shows 3 buttons.
3. The player clicks the “Leaderboard” button from the 3 buttons.
4. The computer shows the top ten scores in a leaderboard.
5. The player clicks the “close” button.
6. The computer shows the screen that the game has not started yet.

Priority: Moderate priority, to be implemented after basic functions.

When available: Third phase.

Frequency of use: Infrequent.

Channel to actor: Via a computer with screen, mouse and keyboard.

Secondary actors: Game developer.

Channels to secondary actors:

1. Game developer: PC-based system.