

CMPT 276 Project Phase 1
Use Case Templates
Group 24

Use-Case: Starting new game

Primary Actor: Player

Goal in Context: To start a new game from the main menu.

Preconditions: User must have launched the game and is in the main menu.

Trigger: The player decides to play a new game.

Scenario:

1. The player clicks on “Play” to get to the next screen.
2. The system displays the difficult options on the screen.
3. The player selects the dish they are planning to cook (the difficulty).
4. The system highlights the selected option.
5. The player confirms the game mode by pressing continue.
6. The system starts the selected game difficulty, switching over to the first frame of a new game.

Exceptions:

1. The player changes their mind, they press on quit in the main menu instead.
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Use-Case: Quitting game

Primary Actor: Player

Goal in Context: To quit the game.

Preconditions: Player must have already started the game.

Trigger: The player decides to stop playing.

Scenario:

1. The player presses on “esc” to go to the pause menu.
2. The system opened the pause menu.
3. The player clicks on “quit”.
4. The system closes the application.

Exceptions:

1. The player changes their mind and decides to play a game — see use-case: “**Starting a new game.**”
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Use-Case: Player moving to an empty cell

Primary Actor: Player

Goal in Context: The player want to move to an empty cell

Preconditions: The player started the game and is on a valid cell adjacent to the target cell.
The player has sufficient oxygen and points.

Trigger: The player decides to move to an adjacent empty cell.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system moves the player in the requested direction.
3. The system decreases the Oxygen level by 1.

4. The system decreases the tickers on the items located around the map by 1.
5. The system moves the enemy.

Exceptions:

1. The player walked onto a cell with a required reward — see use-case: “**Player moving to a cell with a required reward.**”
 2. The player walked onto a cell with a bonus reward — see use-case: “**Player moving to a cell with a bonus reward.**”
 3. The player walked onto a cell with a bad reward — see use-case: “**Player moving to a cell with a bad reward.**”
 4. The player walked onto a cell with an enemy — see use-case: “**Player moving to a cell with an enemy.**”
 5. The player runs out of oxygen — see use-case: “**Player running out of oxygen.**”
 6. The player runs out of points — see use-case: “**Player running out of points.**”
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Use-Case: Player moving to a cell with a required reward

Primary Actor: Player

Goal in Context: The player wants to move to a cell with a required reward.

Preconditions: The player started the game and is on a valid cell adjacent to the item. The player has sufficient oxygen and points.

Trigger: The player decides to move to an adjacent cell that holds a required reward.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system moves the player in the requested direction.
3. The system collects that required item.
4. The system increases the player's points based on item.
5. The system decreases the Oxygen level by 1.
6. The system decreases the tickers on the items located around the map by 1.
7. The system moves the enemy.

Exceptions:

1. The player walked onto an empty cell — see use-case: “**Player moving to an empty cell.**”
 2. The player walked onto a cell with a bonus reward — see use-case: “**Player moving to a cell with a bonus reward.**”
 3. The player walked onto a cell with a bad reward — see use-case: “**Player moving to a cell with a bad reward.**”
 4. The player walked onto a cell with an enemy — see use-case: “**Player moving to a cell with an enemy.**”
 5. The player runs out of oxygen — see use-case: “**Player running out of oxygen.**”
 6. The player runs out of points — see use-case: “**Player running out of points.**”
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Use-Case: Player moving to a cell with a bonus item

Primary Actor: Player

Goal in Context: The player wants to move to a cell with a bonus reward.

Preconditions: The player started the game and is on a valid cell adjacent to the item. The player has sufficient oxygen and points.

Trigger: The player decides to move to an adjacent cell that holds a bonus reward.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system moves the player in the requested direction.
3. The system collects that required item.
4. The system increases the player's points based on item.
5. The system decreases the Oxygen level by 1.
6. The system decreases the tickers on the items located around the map by 1.
7. The system moves the enemy.

Exceptions:

1. The player walked onto an empty cell — see use-case: “**Player moving to an empty cell.**”
 2. The player walked onto a cell with a required reward — see use-case: “**Player moving to a cell with a required reward.**”
 3. The player walked onto a cell with a bad reward — see use-case: “**Player moving to a cell with a bad reward.**”
 4. The player walked onto a cell with an enemy — see use-case: “**Player moving to a cell with an enemy.**”
 5. The player runs out of oxygen — see use-case: “**Player running out of oxygen.**”
 6. The player runs out of points — see use-case: “**Player running out of points.**”
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Use-Case: Player moving to a cell with a bad reward

Primary Actor: Player

Goal in Context: The player wants to move to a cell with a bad reward.

Preconditions: The player started the game and is on a valid cell adjacent to the item. The player has sufficient oxygen and points.

Trigger: The player decides to move to an adjacent cell that holds a bad reward.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system moves the player in the requested direction.
3. The system causes the player's character to glow indicating that damage was taken.
4. The system decreases the player's points based on item.
5. The system decreases the Oxygen level by 1.
6. The system decreases the tickers on the items located around the map by 1.
7. The system moves the enemy.

Exceptions:

1. The player walked onto an empty cell — see use-case: “**Player moving to an empty cell.**”

2. The player walked onto a cell with a required reward — see use-case: “**Player moving to a cell with a required reward.**”
 3. The player walked onto a cell with a bonus reward — see use-case: “**Player moving to a cell with a bonus reward.**”
 4. The player walked onto a cell with an enemy — see use-case: “**Player moving to a cell with an enemy.**”
 5. The player runs out of oxygen — see use-case: “**Player running out of oxygen.**”
 6. The player runs out of points — see use-case: “**Player running out of points.**”
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Use-Case: Player moving over a jumpable barrier

Primary Actor: Player

Goal in Context: The player intends to move through a jumpable barrier (kelp).

Preconditions: The player is in a cell adjacent to the jumpable barrier. The player has sufficient oxygen and points.

Trigger: The player wants to get to the other side of a jumpable barrier.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system moves the player 2 blocks in the desired direction, passing through the jumpable barrier.
3. Randomly, the system can either increase or decrease the player’s points. If the system decreases the player’s points, the model glows red indicating damage was taken.
4. The system decreases the Oxygen level by 1.
5. The system decreases the tickers on the items located around the map by 1.
6. The system moves the enemy.

Exceptions:

1. The player walked onto an empty cell — see use-case: “**Player moving to an empty cell.**”
 2. The player walked onto a cell with a required reward — see use-case: “**Player moving to a cell with a required reward.**”
 3. The player walked onto a cell with a bonus reward — see use-case: “**Player moving to a cell with a bonus reward.**”
 4. The player walked onto a cell with an enemy — see use-case: “**Player moving to a cell with an enemy.**”
 5. The player attempted to jump a non jumpable barrier — see use-case: “**Player moving into a non-jumpable barrier.**”
 6. The player runs out of oxygen — see use-case: “**Player running out of oxygen.**”
 7. The player runs out of points — see use-case: “**Player running out of points.**”
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Use-Case: Player moving to a cell with an enemy

Primary Actor: Player

Goal in Context: The player intends to move onto a cell with an enemy.

Preconditions: The player is in a cell adjacent to the enemy. The player has sufficient oxygen and points.

Trigger: The player wants to die by interaction with the enemy.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system moves the player to the cell with the enemy.
3. The system opens the game over screen since the player has lost.

Exceptions:

1. The player walked onto an empty cell — see use-case: “**Player moving to an empty cell.**”
 2. The player walked onto a cell with a required reward — see use-case: “**Player moving to a cell with a required reward.**”
 3. The player walked onto a cell with a bonus reward — see use-case: “**Player moving to a cell with a bonus reward.**”
 4. The player attempted to jump a non jumpable barrier — see use-case: “**Player moving into a non-jumpable barrier.**”
 5. The player runs out of oxygen — see use-case: “**Player running out of oxygen.**”
 6. The player runs out of points — see use-case: “**Player running out of points.**”
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Use-Case: Player moving on to a cell with an oxygen tank

Primary Actor: Player

Goal in Context: The player needs to refill their oxygen, so they move to a cell with a tank.

Preconditions: The player is in a cell adjacent to a cell with an oxygen tank.

Trigger: The player moves to the cell that contains an oxygen tank.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system refills the player’s oxygen levels.
3. The system decreases the tickers on the items located around the map by 1.
4. The system moves the enemy.

Exceptions:

1. The player walked onto an empty cell — see use-case: “**Player moving to an empty cell.**”
 2. The player walked onto a cell with a required reward — see use-case: “**Player moving to a cell with a required reward.**”
 3. The player walked onto a cell with a bonus reward — see use-case: “**Player moving to a cell with a bonus reward.**”
 4. The player attempted to jump a non jumpable barrier — see use-case: “**Player moving into a non-jumpable barrier.**”
 5. The player runs out of oxygen — see use-case: “**Player running out of oxygen.**”
 6. The player runs out of points — see use-case: “**Player running out of points.**”
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Use-Case: Enemy catching player

Primary Actor: Enemy

Goal in Context: The system beats the player.

Preconditions: The enemy is in a cell adjacent to the player.

Trigger: The system’s algorithm successfully catches the player.

Scenario:

1. The player has moved to a cell adjacent to the enemy.
2. The system moves the enemy to the cell with the player.
3. The system opens the game over screen since the player has lost.

Exceptions:

1. The player moves away from the enemy, hence the player is safe.
 2. The player runs out of oxygen before the enemy can catch up — see use-case: “**Player running out of oxygen.**”
 3. The player runs out of points before the enemy can catch up — see use-case: “**Player running out of points.**”
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Use-Case: Player running out of points

Primary Actor: Player

Goal in Context: The player interacts with enough bad rewards resulting in a loss.

Preconditions: The player needs to be next to the

Trigger: The player collects too many bad rewards causing his score to go below 0.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system moves the player to the cell which contains a bad reward, or the player moves through a jumpable barrier and loses points.
3. The system decreases the player’s points.
4. The system opens the game over screen since the player ran out of points.

Exceptions:

1. The player runs out of oxygen before running out of points — see use-case: “**Player running out of oxygen.**”
 2. The player walked onto an empty cell, not losing points — see use-case: “**Player moving to an empty cell.**”
 3. The player walked onto a cell with a required reward, gaining points— see use-case: “**Player moving to a cell with a required reward.**”
 4. The player walked onto a cell with a bonus reward, gaining points — see use-case: “**Player moving to a cell with a bonus reward.**”ds
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Use-Case: Player trying to exit without required rewards

Primary Actor: Player

Goal in Context: The player is attempting to end the game by exiting the board.

Preconditions: The player must be in a cell adjacent to the exit. The player does not have all the required rewards. The player has sufficient oxygen and points.

Trigger: The player moves onto the exit, without collecting all the required rewards..

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system opens the game-over screen since the player attempted to complete the mission without meeting the requirements.

Exceptions:

1. The player has all the required rewards when attempting to exit — see use-case: “**Player exiting map with required rewards.**”

Use-Case: Player exiting map with required rewards

Primary Actor: Player

Goal in Context: The player is attempting to end the game by exiting the board.

Preconditions: The player must be in a cell adjacent to the exit. The player has all the required rewards. The player has sufficient oxygen and points.

Trigger: The player moves onto the exit, with all the required rewards collected.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system opens the end-game screen, with the summary of the session.

Exceptions:

1. The player does not have all the required rewards when attempting to exit — see use-case: “**Player exiting map without required rewards.**”

Use-Case: Player runs out of oxygen

Primary Actor: Player

Goal in Context: The player intends to lose by running out of oxygen.

Preconditions: The player has 1 oxygen bar left and has sufficient points.

Trigger: The player moves in any direction, decreasing their oxygen level by 1, causing them to lose.

Scenario:

1. The player presses a key to move in the desired direction (UP,DOWN,LEFT,RIGHT)
2. The system decreases the player’s oxygen by 1.
3. The system opens the game over screen since the player lost.

Exceptions:

1. The player moves onto a cell that contains an oxygen tank — see use-case: “**Player moving on to a cell with an oxygen tank.**”
2. The player moves onto an enemy before running out of oxygen — see use-case: “**Player moving to a cell with an enemy.**”