

3.1 Use cases

UC 1. Move

Summary: The player presses the arrow key up / down

Priority: high

Participants: Player

Includes: UC 11 (player talks)

Status: Completed

Normal flow of events

The Player tries to move to a tile

	Actor	System
1	Player presses the arrow key up / down / right / left	
2		The player moves to the tile in front / behind / to the right / to the left of the player, facing the same direction as before
3		Play walk sound

Alternate flow

There is a wall blocking the way

2-3a	Actor	System
1		Play error sound (no movement)

There is a locked door blocking the way and the player doesn't have a key

2-3b	Actor	System
1	Player doesn't have the key to the door	
2		Play locked sound

There is a locked door blocking the way and the player has the appropriate key

2-3c	Actor	System
1	Player has the key to the door	
2		Remove key from inventory
3		Play unlocking sound

There is an NPC on the tile that the player attempts to move to

2-3e	Actor	System
1		Play block sound

UC 2. Rotate

Summary: Player rotates to the either left or right.

Priority: high

Participants: Player, System

Status: Completed

Normal flow of events

The Player tries to rotate to the right.

	Actor	System
1	Player presses the rotate right / left arrow key	
2		The camera rotates 90 degrees clockwise / anti-clockwise

UC 3. Equip item

Summary: The player attempts to equip an item

Priority: high

Participants: Player

Status: Not completed

Normal flow of events

The player attempts to equip an item but already has that item equipped

	Actor	System
1	Player clicks an item	
2		Equip item
3		Item gets a red frame around it
4		Play equip sound

Alternate flow of events

There is already an item equipped

2a	Actor	System
1	Player has an[other item] equipped	
2		Unequip [other item]
3		[other item] loses its red frame

UC 4. Save to file

Summary: Player saves the game

Priority: mid

Participants: Player

Status: Game is automatically saved when game is closed instead of prompting the user

Normal flow of events

	Actor	System
1	Player save the game	
2		Saves the game to a file
3		Outputs that the game has been saved

Exceptional flow

2-3a	Actor	System
1		System tries to save to a file but fails
2		Displays an error message

UC 5. Player attacks

Summary: Player attacks

Priority: high

Participants: Player

Include: UC 7 (Consume item)

Status: Completed

Normal flow of events

Player attacks NPC on tile in front of player with an item that does damage and has a special effect

	Actor	System
1	Player presses the attack button	
2		Check the effect of equipped item
3		Calculate damage
4		Apply damage to NPC
5		Apply item effect to NPC

Alternate flow

Player has no item equipped

2a	Actor	System
1		Choose the effect of player's default item (fist)

Player is facing tile with no NPC on it

3-4a	Actor	System
1		Apply damage on empty tile
2		Apply effect on the empty tile

UC 6. Player uses item on self

Summary: Player uses an item on self

Priority: high

Participants: Player

Includes: UC 7 (Consumes item)

Status: Completed

Normal flow of events

Player uses an equipped item on self

	Actor	System
1	Player presses button to use item on self	
2		Check the effect of equipped item
3		Calculate damage
4		Apply damage to self
5		Apply item effect to self

Player has no item equipped

2a	Actor	System
1		Choose the effect of player's default item (fist)

UC 7: Consumes item

Summary: Player uses on self / attacks with consumable item

Priority: high

Participants: Player

Status: Not completed

Normal flow of events

Player uses on self / attacks with consumable item, and there is only 1 stack of the item

	Actor	System
1		Item is removed from inventory

Alternate flow

There is more than 1 stack of the item

	Actor	System
1		Decrease the item counter by 1

UC 8. Continue a previous game session

Summary: The player continues a previous game session

Priority: high

Participants: Player

Status: Completed, if no previous game was found, a new game is started instead

Normal flow of events

	Actor	System
1	Player presses the Continue button	
2		Load previous game state from file
3		Start game with game state
4		Output that the game has been loaded

Exceptional flow

Tries to load, but there is no previous data

2-4a	Actor	System
1		There is no previous data to load
2		Exception: No previous save to load!

UC 9. Start a new game session

Summary: The player starts a new game session

Priority: high

Participants: Player

Status: Completed

Normal flow of events

1-a	Actor	System
1	Player presses the New Game button	
2		The system saves the starting game state to a file
3		Start game with the starting game state

Exceptional flow

2-3a	Actor	System
1	System doesn't have the privileges to create a file	
2		Exception: Cannot create save!

UC 10. Quit the game

Summary: The player quits the game

Priority: high

Includes: Save game

Participants: Player

Status: Completed, as stated above, saves the game automatically

Normal flow of events

	Actor	System
1	Presses "Exit Game"	
2		Asks "Save before exiting?"
3	Presses "Yes"	
4		Saves the game
5		Exits the application

Alternate flow

2-4a	Actor	System
1		Asks "Save before exiting?"
2	Presses "No"	

Exceptional flow

2b	Actor	System
1		The system can not save
2		Outputs "Save failed!"
3		Outputs "Try to save again?"

UC 11. Player talks

Summary: The player talks to an NPC in front of the player

Priority: high

Participants: Player

Status: Not completed

Normal flow of events

The player walks on a tile and there is an item on that tile

	Actor	System
1	Player presses "Talk"	
2		Dialogue popup: [NPC response]
3		Play dialogue popup sound
4	Player presses any button, or clicks with the mouse anywhere	
5		Dialogue disappears

UC 12. Player picks up item

Summary: The player picks up an item

Priority: high

Participants: Player

Status: Not completed

Normal flow of events

The player walks onto a tile, there is an item on the tile and there's a slot in the player inventory

	Actor	System
1		Put item in available slot in inventory

Alternate flow

It's a consumable item and there is already one instance of that item in the inventory

1a	Actor	System
1		Increment item counter by 1

There is no available item slot

1b	Actor	System
1		Play full sound