Detailed Use Cases for First Iteration

Assignment in the course PA1415 Software Design

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System Description

The goal of this system is to create a game based on the idea of the game Nethack. The system shall adopt the rules of the original Nethack to keep its flare.
The most interesting feature for the system is the map generation where the maps can be generated with the twitter API. The map generation work in a way that the users can generate a map in at least two different ways.
The system also includes multiplayer support. User are able to access games online via the internet of offline via a LAN.

Detailed Use Cases

1. Use Case: Generate Level

Actors: Player

Description:

When the player starts the game the system generates a level. When the player finishes that level a new level is generated.

Preconditions:

- The game is running.

Main course of events:

Actor	System	Business Requirements
1. A player starts the game	2. A level is generated	**BR1:** "As the software owner I want the maps to be randomly generated so that the players can have different experiences" **BR2:** "As the software owner I want to have randomly generated levels to increase the game's replay value"
3. The player finishes the level	4. A new level is generated	

Alternative Flows:

- 2. System fails to generate a level and prompts the failed action.
- 4. System fails to generate a new level and prompts the failed action.

2. **Use Case:** Start new game
   Actors: Player
   Description:
   A player requests to start a new game.
   The system creates a new game.

   Preconditions:
   - The game is running.

   Main course of events:

Actor	System	Business requirements
1. A player requests to start a new game.	2. Creates a new game	**BR1:** "As a player I want to start playing by creating a new game so that I can start exploring a new map"

   Alternative Flows:
   - 2. The system fails to create a new game.

3. **Use Case:** Join existing game
   Actors: Player
   Description:
   A player requests to join an already existing game.
   The system establishes a connection between the existing game and the player.

   Preconditions:
   - The player has a connection to the internet or the local area network.
   - The player is logged in

   Main course of events:

Actor	System	Business requirements
1. A player requests to join an already existing game	2. Establishes a connection between the existing game and the player	**BR1:** "As the software owner I want the game to be playable online so that the game can be played with more than just one player"

   Alternative Flows:
   - 2. System fails to connect the player to the existing game and returns the player to the main menu.

4. **Use Case:** Save game
   Actors: Player
   Description:
   A player requests to save the current progression of an existing game.
   The system creates a save file in one of the directories in the game folder.

   Preconditions:
   - The player is in a active game.

   Main course of events:

Actor	System	Business requirements
1. A player requests to save the current progression.	2. Creates a save file in a directory in the game folder.	**BR1:** "As a player I want to be able to save my current progress so that I can continue playing at a different time."

   Alternative Flows:
   - 2. System fails to save the current progress. System prompts the failed action.

5. **Use Case:** Load game
   Actors: Player
   Description:
   A player requests to load the progression of a previously saved game.
   The system reads the save file and recreates the saved game.

   Preconditions:
   - An existing file to load the previously saved game

   Main course of events:

Actor	System	Business requirements
1. A player requests to load the progression of previously saved game.	2. Reads the save file and recreates the saved game.	**BR1:** "As a player I want to load a previous game so that I can continue adventuring."

   Alternative Flows:
   - 2. System fails to read the save file. System prompts the failed action.

6. **Use Case:** Create character
   Actors: Player
   Description:

   A player wants to create its own character. The player wants to choose from a class and set attributes. The player wants to give its character a name.

   The system will create a class entity after player instructions.

   Preconditions:

   - Game is running

   Main course of events:

Actor	System	Business requirements
1. A player selects the option to create a new character	2. Opens the menu for creating a character	**BR1:** "As a player I want the game to have a variety of classes so that I can choose to play the game in different ways."
3. The player selects a class	4. The new character is set to the selected class	
5. The player sets his name	6. The new characters name is saved.	
	7. The new character is created with the selected options.	

   Alternative Flows:

   - 2. System fails to open the character creation window and returns the player to the main menu.
   - 4. System fails to set the selected class and prompts the failed action.
   - 6. System fails to set the character's name and prompts the failed action.
   - 7. System fails to create a new character and prompts the failed action.

7. **Use Case:** Pick up items
   Actors: Player
   Description:
   A player wants to pick up items.
   The system will add the item to the player inventory.

   Preconditions:
   - An item to pick up exists
   - The player is close enough to the item in question.

   Main course of events:

Actor	System	Business requirements
1. A player presses the button to pick up an item.	2. The item is added to the inventory	**BF1:** "As a player I want to be able to use items so that I can alter/trigger events in the game"

   Alternative Flows:
   - 2. System fails to add item to the inventory and prompts the failed action.
   - 2. Players inventory is full and system prompts an "Inventory full" message.

8. **Use Case:** Open inventory
   Actors: Player
   Description:
   A player requests its inventory content to be shown.
   The system prompts a message giving information about the player inventory.
   Preconditions:
   - The player is in a active game

   Main course of events:

Actor	System	Business requirements
1. A player selects the option to open inventory	2. The inventory is opened	**BR1:** "As a player I want to be able to use items so that I can alter/trigger events in the game."

   Alternative Flows:
   - 2. System fails to open the inventory and prompts the failed action.

9. **Use Case:** Use item
   Actors: Player
   Description:
   A player gives the command to use its selected item.
   The system will prompt a message regarding the consequences of the players action.
   Precondition:
   - The player have a usable item in his/her possession.

   Main course of events:

Actor	System	Business requirements
1. A player selects the option to open inventory	2. Initiates Use Case "Open inventory"	**BR1:** "As a player I want to be able to use items so that I can alter/trigger events in the game."
3. The player selects an item to use	4. Item is used	
	5. Prompts a message regarding the consequences of the players action	

   Alternative Flows:
   - 2. System fails to fails to open inventory and prompts the failed action.
   - 4. System fails to activate the item in question and prompts the failed action.
   - 5. System fails to prompt the message.

10. Use Case: Enter room

Actors: Player

Description:

A player gives the command to enter a room.
The system will prompt a message regarding the consequences of the players action.

Precondition:

- A room to enter exists

Main course of events:

Actor	System	Business requirements
1. A player gives the command to enter a room	2. Prompts a message regarding the consequences of the players action	**BR1:** "As a player I want to be able to use items so that I can alter/trigger events in the game"
	3. Player is moved into room	

Alternative Flows:

- 2. System fails to prompt the message.
- 3. System fails to move the player