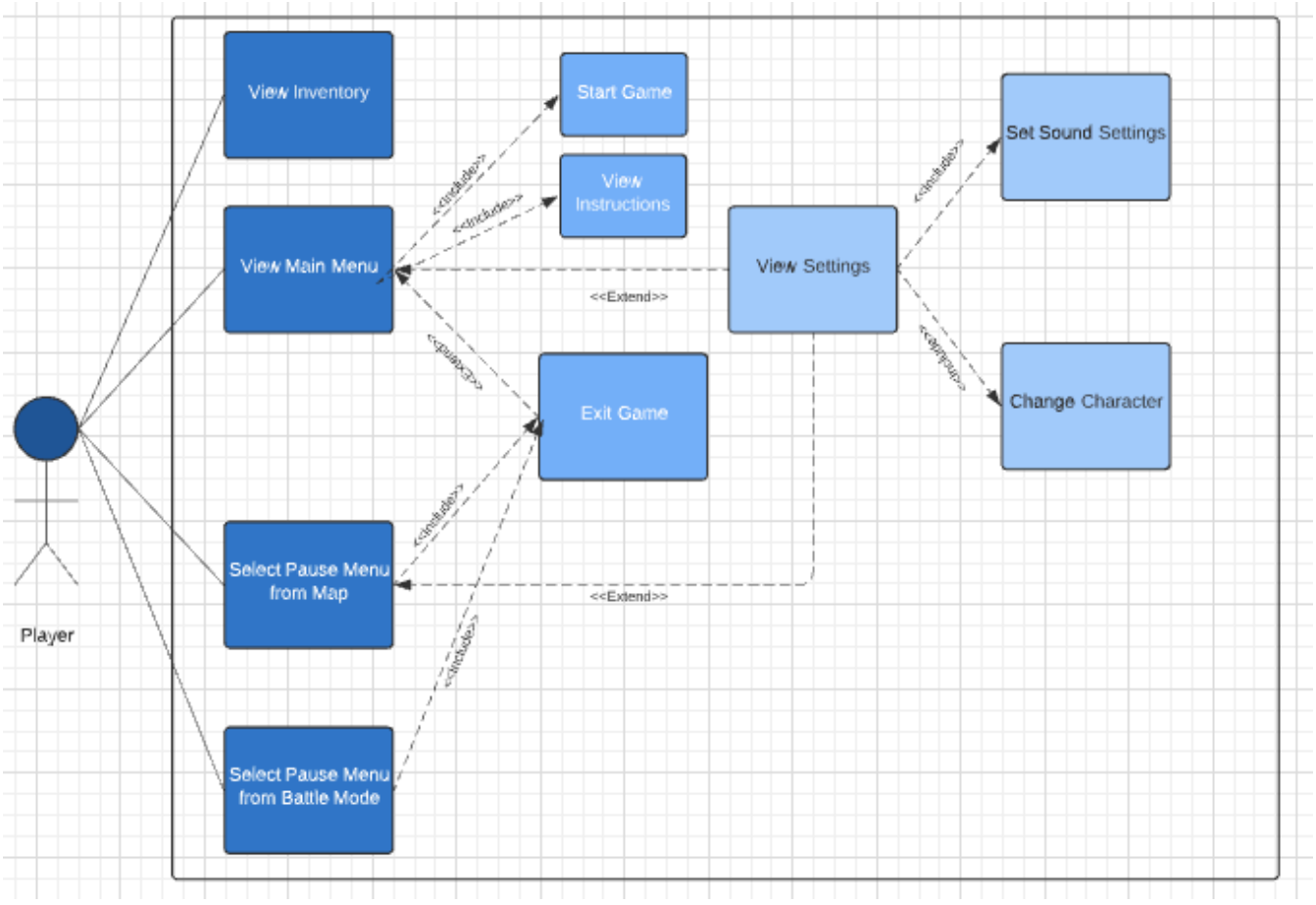
1. Brief Introduction

My feature will be the menus used throughout the game and much of the user interface. This will be the opening menu, that will although for the user to start the game, modify the settings, view the instructions, or exit the game. There will also be a pause menu for both inside a battle and outside when you are walking around the map. The pause menus will allow you to exit the game, or view the settings. Settings will include setting the sound volume and what character you would like. Finally my feature will include a inventory and score board menu. The inventory will update as you move through the map and collect items and will be available in regular roaming mode. The score board will be during a battle when the winner is announced.

2. Use Case Diagram with Scenario

Use Case Diagram



Scenarios

Name: View Main Menu
Summary: The player uses the system to launch the game and the main menu will open.
Actors: Player.
Preconditions: Game application must be running.
Basic sequence:

Step 1: Accept input for *View Instructions* from a button.
Step 2: Accept returning from the View Instructions.
Step 3: A button for *Start Game* is selected.
Step 4: Enter Game Play.

Exceptions:
Exception Case 1

Step 1: Accept input of *Exit Game* from a button selection or any other mouse of keyboard input: ignore input.
Step 2: Game Menu closes and system exits.

Exception Case 2

Step 1: Accept input of *View Settings* from a button selection or accept input for *Character Selection* button selection; any other user input that is pressed: ignore input.
Step 2: Accept returning to main menu from mouse click input.

Post conditions: Game play is enter.
Priority: 2
ID: HK01
*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

Name: Select Pause Menu from Map
Summary: The player will be able to access the pause menu as they wonder around the map.
Actors: Player.
Preconditions: Player must have entered the game play and be either engaged in a conversation with a NCP or when they are just wondering the map.
Basic sequence:

Step 1: Accepts player input of selecting pause button.
Step 2: Display button options for quitting the game, accept button selection. Any other user input that is press: ignore input.
Step 3: Push the button to return the game.

Exceptions:

Step 1: Accept the player input of selecting the settings button.
Step 2: Accept what function in settings they would like to access.
Step 3: Accept when the button to return to the game is clicked: all other inputs will be ignored.

Post conditions: Player will be returned to the map mode
Priority: 2
ID: HK02

Name: Select Pause Menu from Battle Mode
Summary: The player will be able to access the pause menu as they are in a battle against a NCP
Actors: Player
Preconditions: The player must be entered in a battle against the NCP.
Basic Sequence:

Step 1: Accepts player input of selecting the pause button: all other inputs that are entered will be interpreted for the battle or will be ignored.
Step 2: Exit button is selected, and the game will exit.

Exceptions:

Step 1: Any other input from the user, mouse click or keyboard entry (if a key is not define for exiting) then the input is ignored.

Post Conditions: Game play will be exited.
Priority: 2
ID: HK03

Name: View Inventory
Summary: The player will be able to view their inventory of collected items while they are in the explore map mode.
Actors: Player
Preconditions: The player must be entered in the map mode and not be currently engaged in a conversation with an NCP.
Basic Sequence:

Step 1: Accept the input of a mouse click of selecting the inventory menu.
Step 2: Accept players input of selecting the button to return the game.

Exceptions:

Step 1: Any other input from the user, mouse click or keyboard entry, then input is ignored.

Post Conditions: Game play will re-enter into map mode that allows character to continue to explore.
Priority: 3
ID: HK04

3. Data Flow Diagrams from Level 0 to process description for your feature

Data Flow Diagrams

Context Diagram: Level 0

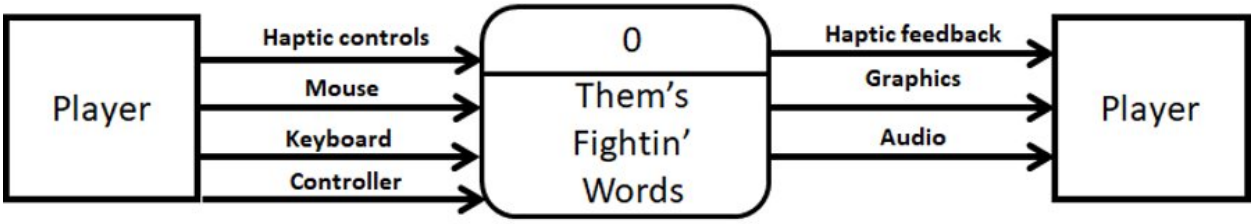


Diagram 0: Level 1

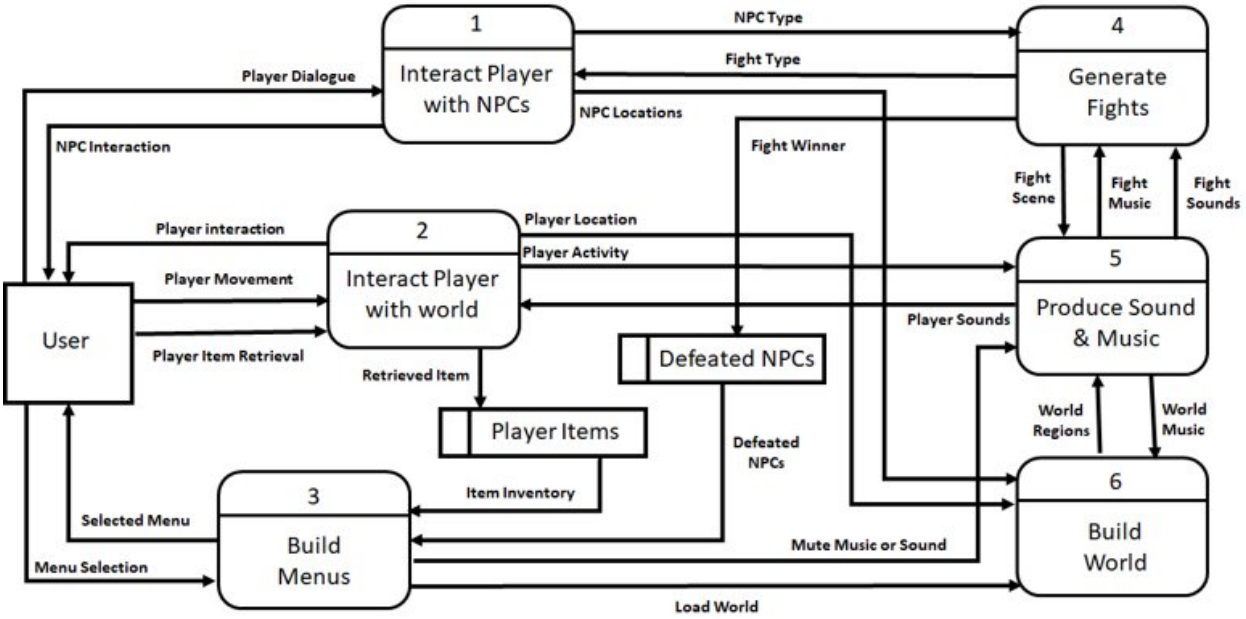
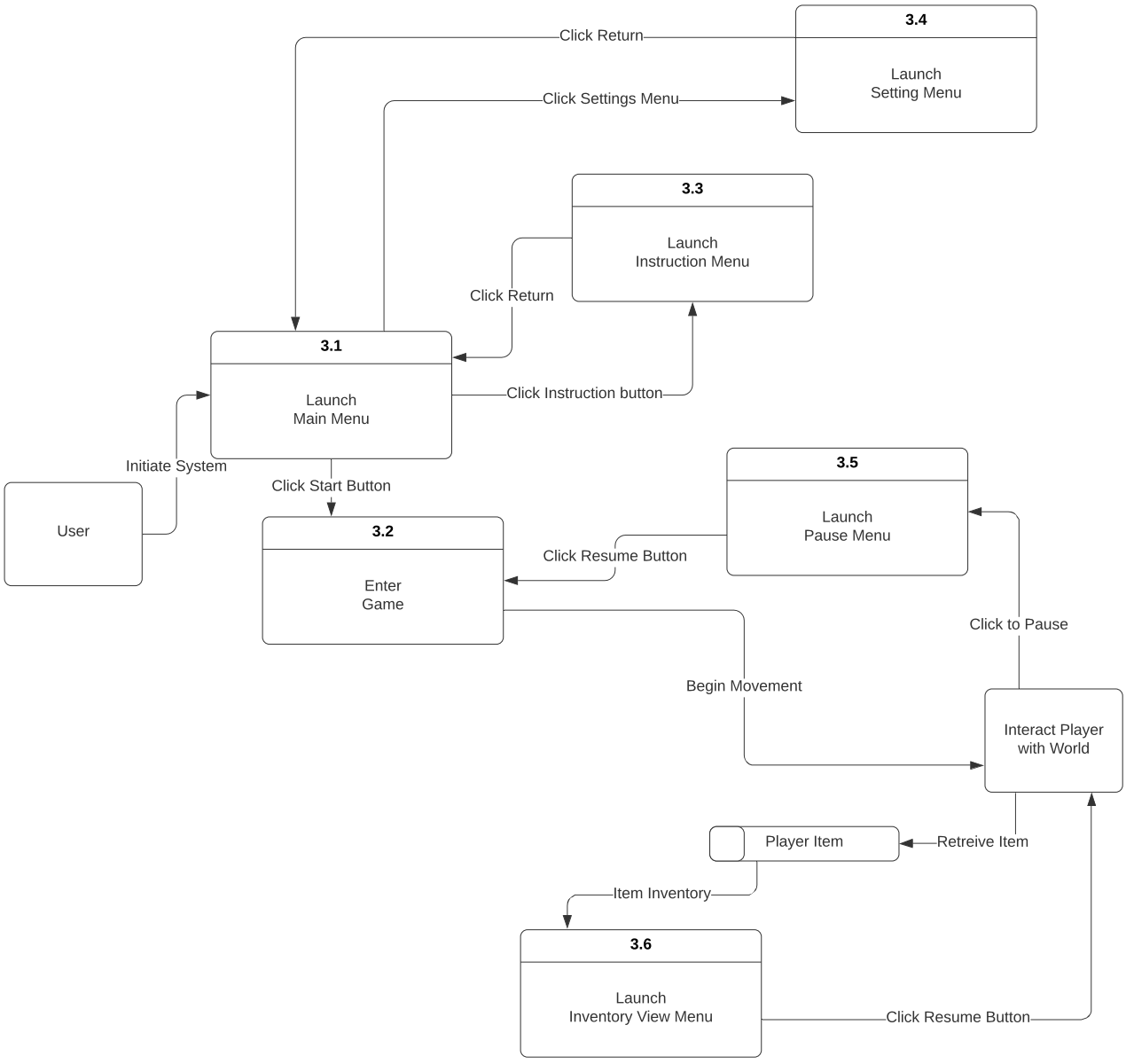


Diagram 3:


3.4
Launch
Setting Menu
Click Return
Click Settings Menu
3.3
Launch
Instruction Menu
Click Return
3.1
Launch
Main Menu
Click Instruction button
Initiate System
User
Click Start Button
3.5
Launch
Pause Menu
3.2
Enter
Game
Click Resume Button
Click to Pause
Begin Movement
Interact Player
with World
Player Item
Retreive Item
Item Inventory
3.6
Launch
Inventory View Menu
Click Resume Button

Process Descriptions

Main Menu:

```
IF Play Now Button is selected
        enter game play

ELSE IF Instructions Button is selected
        enter Instruction Menu
                IF Return Button is selected
                    Return to Main Menu

ELSE IF Setting Button is selected
        enter Settings Menu
                WHILE slider is active, set float to equal value
                END WHILE and return to Settings function

                IF Character Button is selected
                   Set SelectChar() to selected character

                IF Return Button is selected
                   Return to Main Menu

ELSE IF Quit Button is selected
        Call QuitButton() function, and exit the game

ELSE (all other mouse/keyboard inputs used to activate a button)
    do nothing
```

Pause Menu:

```
   WHILE Player is in map mode
        IF Pause Button is selected
           Open Map-Pause Menu
                IF Exit Button is selected
                    Exit game through quitgame () function
                ELSE IF Setting's Button is selected
                    Enter Settings Menu (will call to the settings code above)
                ELSE
                    Do Nothing

          ELSE
              Continue with game play (not my functions)

   END WHILE (Player no longer in map mode)

   WHILE Player is in battle mode
        IF Pause Button is selected
            Open Battle-Pause Menu
                IF Exit Button is selected
                    Exit game through quitgame() function
```

```
            IF Return Button is selected
                Return to battle mode
            ELSE
                Do nothing
END WHILE (when player exits battle) return to map mode
```

Inventory:

```
  IF inventory button is selected
        Open inventory menu
        IF Return button is selected
            Return to map mode
        ELSE
            Do nothing
```

4. Acceptance Tests

OBJECT TO TEST	OUTPUT
Instructions Button	Move to instruction menu
Settings Button	Move to settings menu
Quit Button	Close running game (at all locations)
Return Button	Return to previous menu or to game play (all locations)
Volume Slider	Sound level changes
Play Now Button	Game is entered
Inventory Button	Inventory is opened

The table above highlights all the possible button options that will be required for my feature of the game. They will all need to be tested to ensure they are linked properly and are connected. To test this, one could enter the game mode and ensure the buttons highlight when passing over them and when clicked on they bring you to the proper page. If game implementation becomes available on other devices (touch screen, controller) the buttons above will have to be tested to ensure they accept the different types of input, rather then just mouse clicks. This could also include specific key strikes if we set them to equal menu selection or exiting the game.

The volume slider is slightly different than the buttons as it will understand the click and drag action. The slider will also have to be connected to the volume of the sound of the system to ensure the volume changes appropriately with the action. This can be tested by entering the game and selecting the settings option from the main menu and making these adjustments.

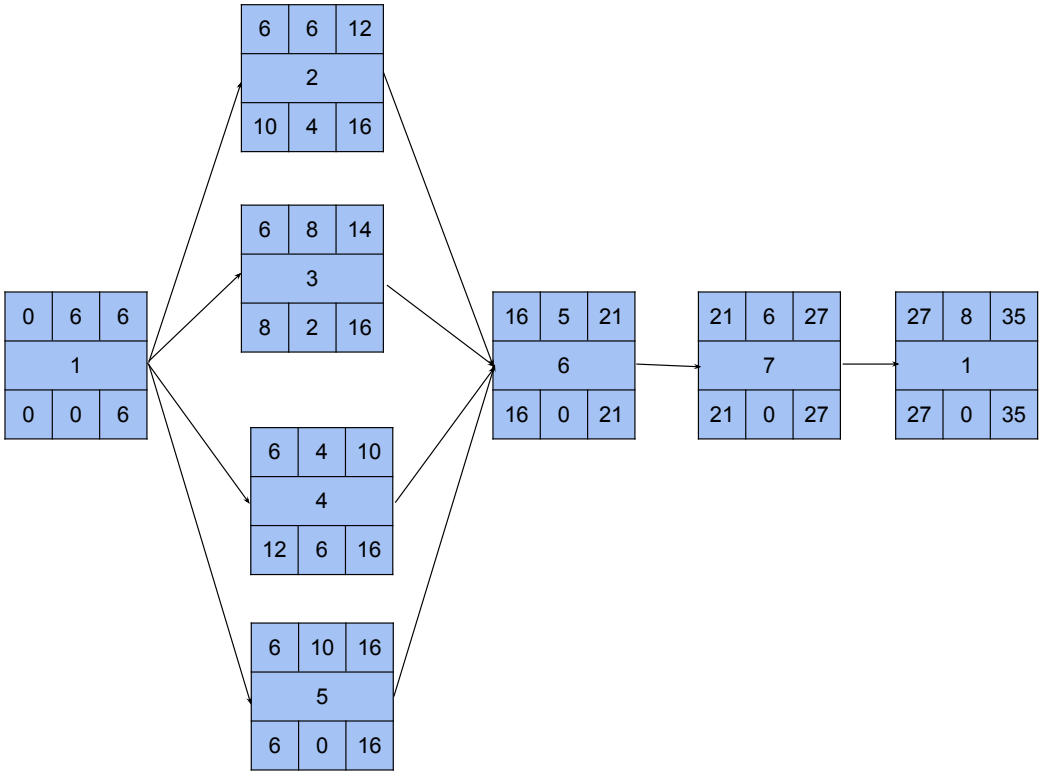
Inventory will have to be tested that it will hold the proper amount of items, increment when an additional item is picked up. The inventory's maximum will be equal to all the items we have placed on the map. This can be tested by determining how many items are on the map and adding that many into the inventory and ensuring all can be held.

5. Timeline

Work Items

Task	Duration (PWks)	Predecessor Tasks
1. Watch Tutorials	6	-
2. Main Menu Design	6	1
3. Pause Menu Design (map & battle)	8	1
4. Inventory Design	4	1
5. Design Instructions & Setting Screens	10	1
6. Linking Menus	5	2,3,4,5
7. Testing	6	6
8. Final Rendition	8	7

Pert Diagram



Gantt Timeline