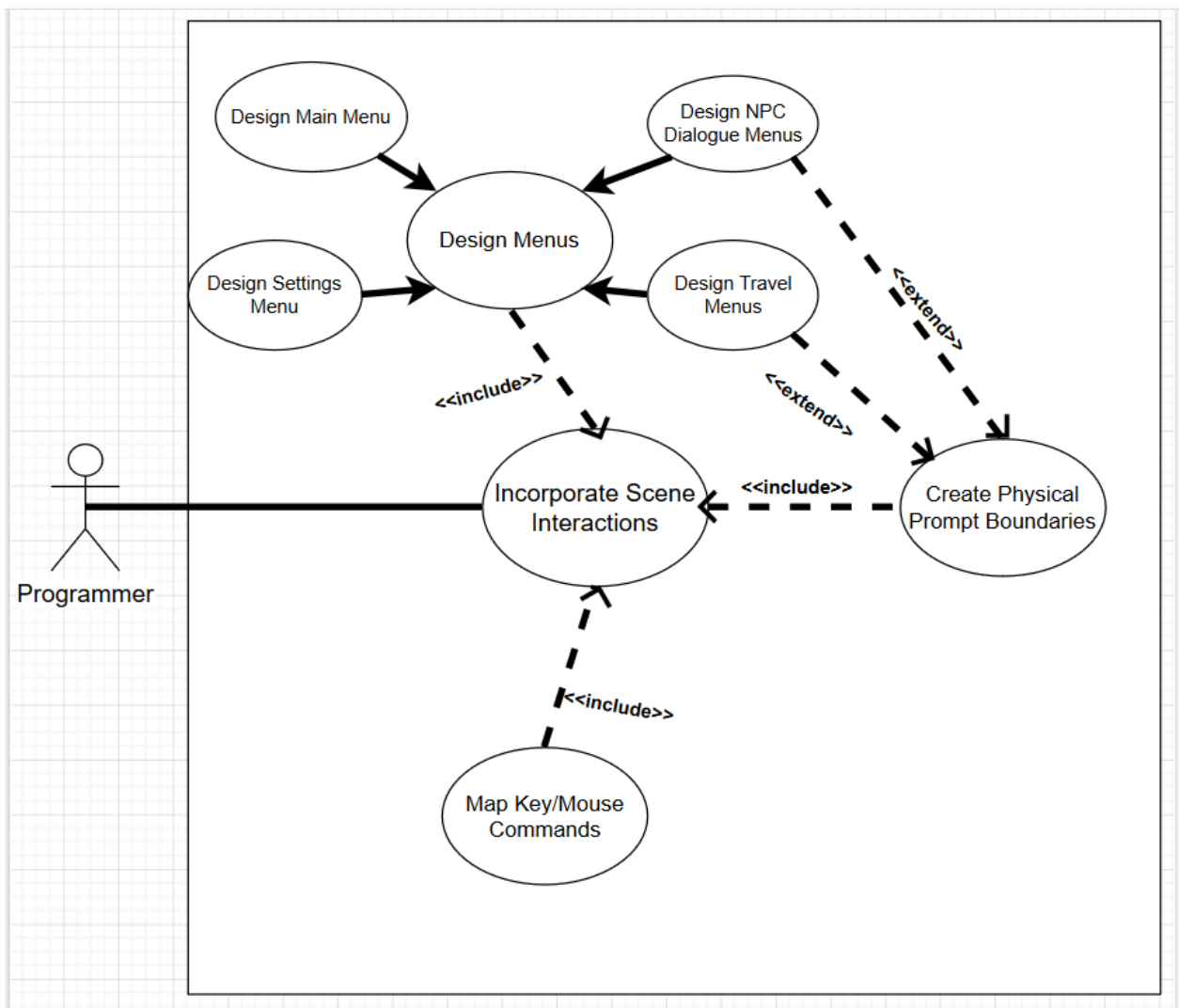


**1. Brief introduction \_/3**

My champion for this project is incorporating scene interactions and level transitions.

Specifically, I am creating menus and prompts that the player will interact with throughout the game with manual controls. Such as NPC interaction prompts, menu navigation, level transition prompts, etc.

**2. Use case diagram with scenario \_/4****Use Case Diagrams**

## Scenarios

**Name:** Map Key/Mouse Commands

**Summary:** The Programmer assigns the manual commands needed to interact with specific objects in the scene.

**Actors:** Programmer

**Preconditions:** The scenes have been created with the needed sprites/objects.

**Basic sequence:**

**Step 1:** The Programmer decides which commands will do what actions when interacting with in-game objects.

**Step 2:** The Programmer writes a script that describes what action will take place and what commands need to be executed for that action to take place.

**Step 3:** The Programmer selects the object that the player will interact with and creates a new script component.

**Step 4:** The Programmer takes the script made in **Step 2** and places it in the object component made in **Step 3**.

**Post conditions:** Player can execute manual keyboard/mouse commands to interact with objects in the scene.

**Priority:** 2\*

**ID:** A01

**Name:** Design Main Menu

**Summary:** The Programmer creates a starting menu for the player to navigate to start the game, quit the game, or go to the settings menu.

**Actors:** Programmer

**Preconditions:** There is a game made to start playing and there is a settings menu to go to.

**Basic sequence:**

**Step 1:** The Programmer creates a new scene.

**Step 2:** The Programmer selects and applies a background for the scene.

**Step 3:** The Programmer uses Unity's UI creator to create interactable text options.

**Step 4:** The Programmer creates a script for each option so that when selected, the option will take the player to a new scene.

**Step 5:** The Programmer assigns each script to the appropriate object in the scene.

**Post conditions:** There is a starting menu for the player to interact with when first starting up the game.

**Priority:** 1\*

**ID:** A02

**Name:** Design Settings Menu

**Summary:** The Programmer creates a menu that houses the games settings, such as audio and visual settings.

**Actors:** Programmer

**Preconditions:** There is a game to change the settings to.

**Basic sequence:**

**Step 1:** The Programmer creates a new scene.

**Step 2:** The Programmer selects and applies a background to the scene.

**Step 3:** The Programmer uses Unity's UI creator to create interactable text, buttons, and sliders.

**Step 4:** The Programmer writes scripts for each text, button, and slider to indicate what each object will do once interacted with.

**Step 5:** The Programmer assigns each script to the appropriate object in the scene.

**Post conditions:** There is a settings menu that the player can interact with to change the setting in the game such as volume and graphics.

**Priority:** 2\*

**ID:** A03

**Name:** Design NPC Dialogue Menus

**Summary:** The Programmer creates dialogue prompts and menus for the player to see and read dialogue and story lines from.

**Actors:** Programmer

**Preconditions:** There is a game to play and NPCs for the player to interact with.

**Basic sequence:**

**Step 1:** The Programmer creates a dialogue script for each NPC interaction throughout the game

**Step 2:** The Programmer creates a tasteful text box to be the standard form of all text given in the game.

**Step 3:** For each interactable NPC in the game, the Programmer writes scripts that causes the text box to appear with text once the player has interacted with the NPC.

**Step 34** The Programmer assigns a script to each NPC with the appropriate dialogue.

**Exceptions:**

**Step 1:** The Programmer must create a boundary for the player to be inside of to prompt the dialogue from the NPC to start.

**Post conditions:** There is a prompt in game for a player to execute so as to speak with NPCs and read dialogue from the screen.

**Priority:** 2\*

**ID:** A04

**Name:** Design Travel Menus

**Summary:** The Programmer creates a menu system for the player to use to travel between areas (scenes).

**Actors:** Programmer

**Preconditions:** There are scenes set up for each area of the game, and an object to interact with to change areas within each scene.

**Basic sequence:**

**Step 1:** The Programmer designs a menu to display the possible areas the player can move to from their current position.

**Step 2:** The Programmer creates a script that brings up an area options menu for the player to choose from, and links scenes to what the player selects.

**Step 3:** The Programmer assigns this script to each object designed to be used for travel between areas.

**Exceptions:**

**Step 1:** The Programmer must create a boundary for the player to be inside of to prompt the travel menu to display.

**Post conditions:** There is a way for players to move between areas through manual prompts.

**Priority:** 2\*

**ID:** A05

**Name:** Create Physical Prompt Boundaries

**Summary:** The Programmer creates boundaries within the scene around interactable objects so that the player must be next to the object to interact with it.

**Actors:** Programmer

**Preconditions:** The interactable objects are already placed within the scene.

**Basic sequence:**

**Step 1:** The Programmer uses Unity's system to create a boundary around each interactable object.

**Step 2:** The Programmer maps the key prompt scripts made previously to the boundaries around the object.

**Post conditions:** There are invisible boundaries around interactable objects in the game that the player must be within to interact with said object.

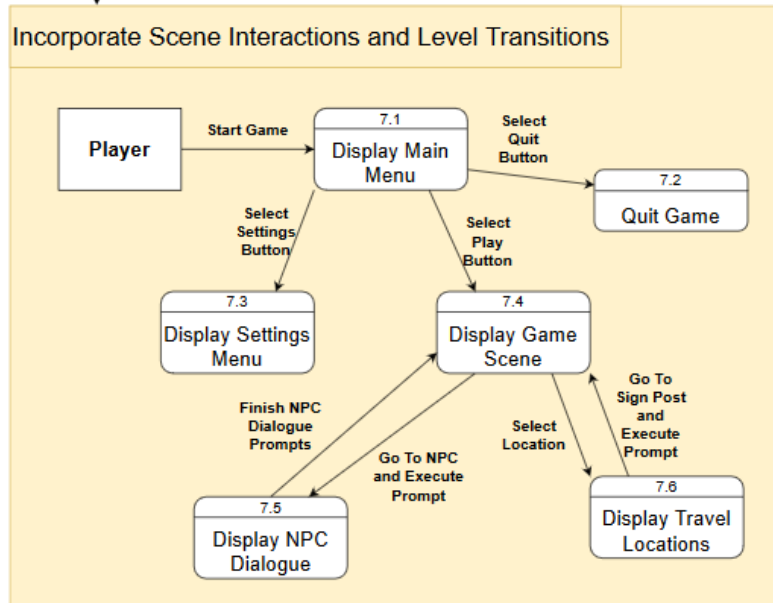
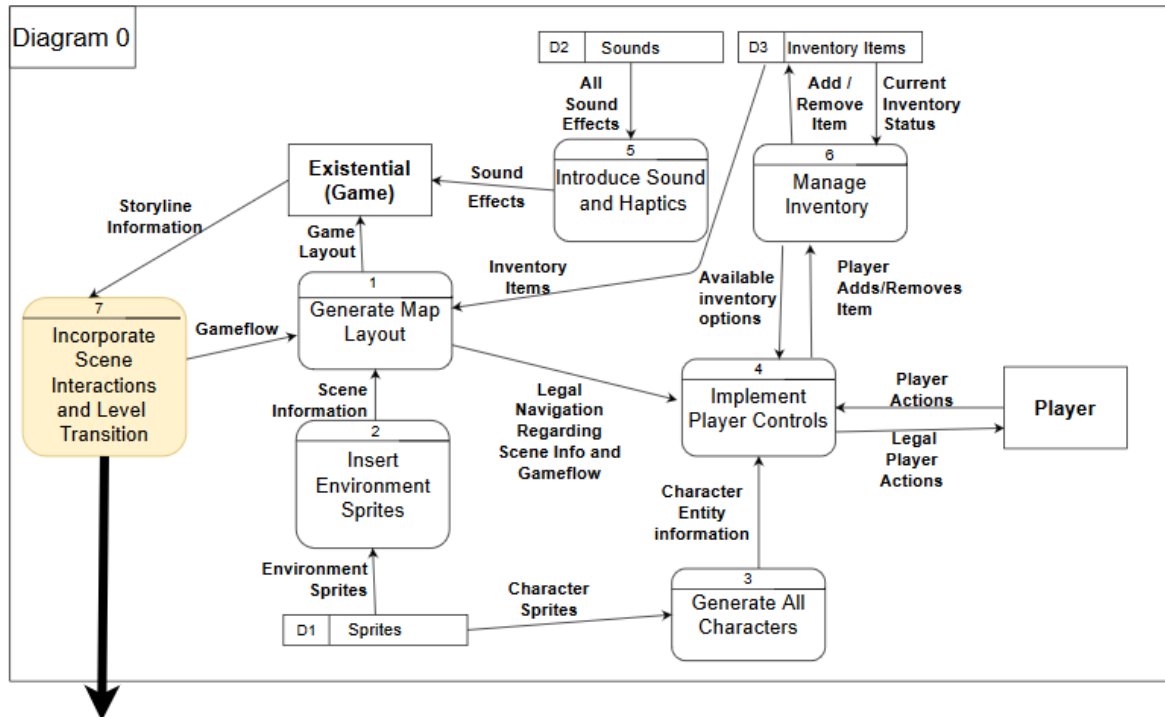
**Priority:** 2\*

**ID:** A06

\*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

### 3. Data Flow diagram(s) from Level 0 to process description for your feature \_\_\_\_/4

#### Data Flow Diagrams



## Process Descriptions

Display Main Menu:

```
    WHILE no button has been selected
        Display the Main Menu
    ENDWHILE
```

Quit Game:

```
    IF "Quit" button has been selected from Main Menu
        Close application
```

Display Settings Menu:

```
    IF "Settings" button has been selected from Main Menu
        WHILE in settings menu
            IF any settings were changed
                implement setting in game
            IF "Back" button has been selected
                return to Main Menu
            BREAK
        ENDWHILE
```

Display Game Scene:

```
    IF "Play" button has been selected from Main Menu OR selected a new
        scene to play in via signposts
        explore area
    IF "Main Menu" button has been selected from game scene
        Go tot Main Menu
```

Display NPC Dialogue:

```
    WHILE NPC has dialogue
        Keep prompting dialogue
    ENDWHILE
```

Display Travel Locations:

```
    WHILE interacting with Signpost
        IF an area is selected
            Go to new game scene
        IF the "Back" button is selected
            Display current game scene
    ENDWHILE
```

## 4. Acceptance Tests \_\_\_\_/9

Test Main Menu:

- For each button in the Main Menu, test 100 times that
  - The “Play” button starts the game
  - The “Settings” button displays the settings menu
  - The “Quit” button quits the application

Test Settings Menu:

- For each settings interval that can be changed, ensure that those changes are made in the game scenes at the specified intervals.

Test NPC Dialogue Prompts:

- For each interactable NPC in each scene, test 100 times that
  - The dialogue boxes are displayed on the screen
  - The player can prompt their way through the text
  - When the dialogue ends, the dialogue boxes are no longer displayed
- For each interactable NPC in each scene, test from every angle that
  - The boundaries are working
    - Players cannot prompt NPC outside the boundary

Test Signpost Interaction:

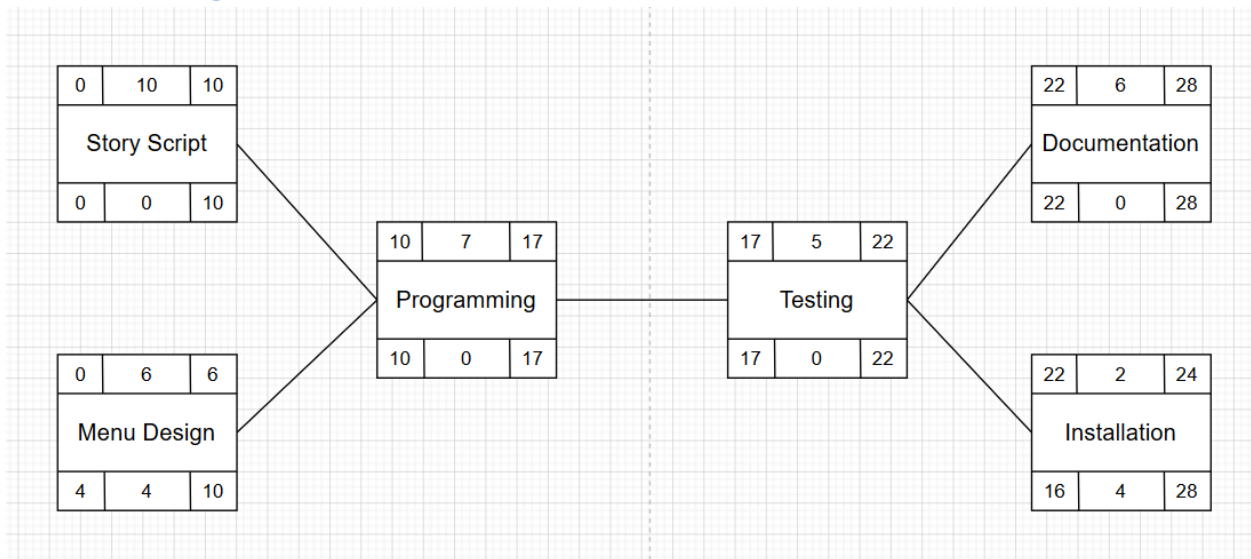
- For each signpost in each scene, test 100 times that
  - A list of the possible locations to travel to are displayed
  - If the user backs out of the travel menu, the menu is no longer displayed
  - The scene will change to the areas specified by that specific signpost once selected
- For each signpost in each scene, test from every angle that
  - The boundaries are working
    - Players cannot prompt the signposts outside the boundary

## 5. Timeline \_\_\_\_/10

### Work items

Task	Duration (PWks)	Predecessor Task(s)
1. Story Script	10	-
2. Menu Design	6	-
3. Programming	7	1,2
4. Testing	5	3
5. Documentation	6	4
6. Installation	2	4

### Pert diagram





Gantt timeline

