

[**Instructions:** Remove everything that is not a heading below and fill in with your own diagrams, etc.]

1. Brief introduction __/3

The user interface is a set of menus for the game and a set of controls for both Mobile and Keyboard/Mouse. This includes a main menu, a pause menu, a settings menu, a player HUD, an End Screen, a Shop HUD, a character creation menu, and a Mobile Control HUD.

The main menu and pause menu should let the user start/restart the game (and resume the game in the pause menu), go to the settings screen, and quit the game.

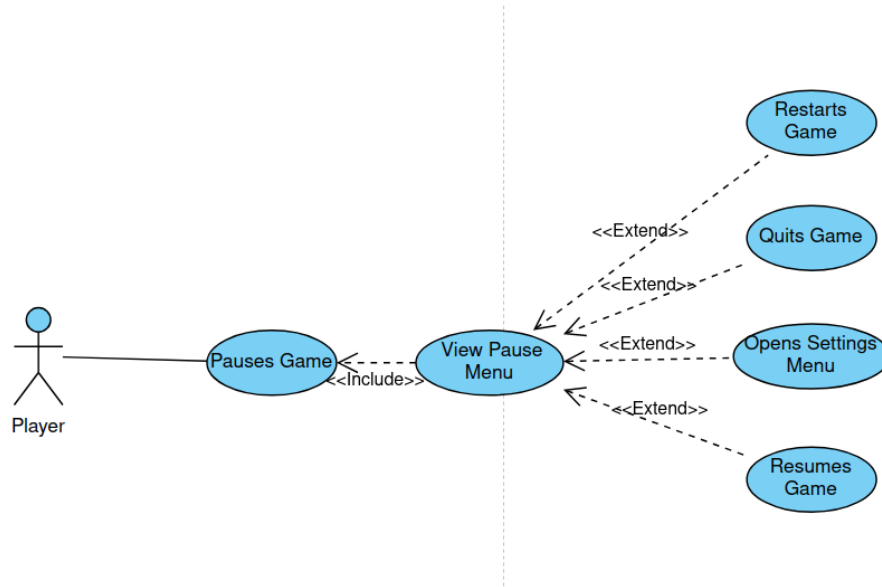
The settings menu should have audio controls, control remapping, and various accessibility settings (color-blind settings, font-accessibility, motion limiting, etc...).

The Player HUD should display various in-game warnings, the player's health and score, and may also shake to add to the tension of the game.

The end screen should let the user restart or quit and should display the player's score. The shop HUD should let the user purchase in-game items using an in-game currency and may change depending on the character class.

The Mobile control HUD should have touch screen controls and may modify the player HUD to optimize for smaller screens.

2. Use case diagram with scenario _14



Name: Display Pause Menu

Summary: The User has opened the Pause Menu

Actors: User

Preconditions: The game is currently in play

Basic sequence:

Step 1: The game is paused and any in-game actions are halted

Step 2: The Pause menu is displayed

Step 3: The user selects one of four options

Exceptions:

A: The game is resumed

B: The game is restarted

C: The game is quit and the main menu is shown.

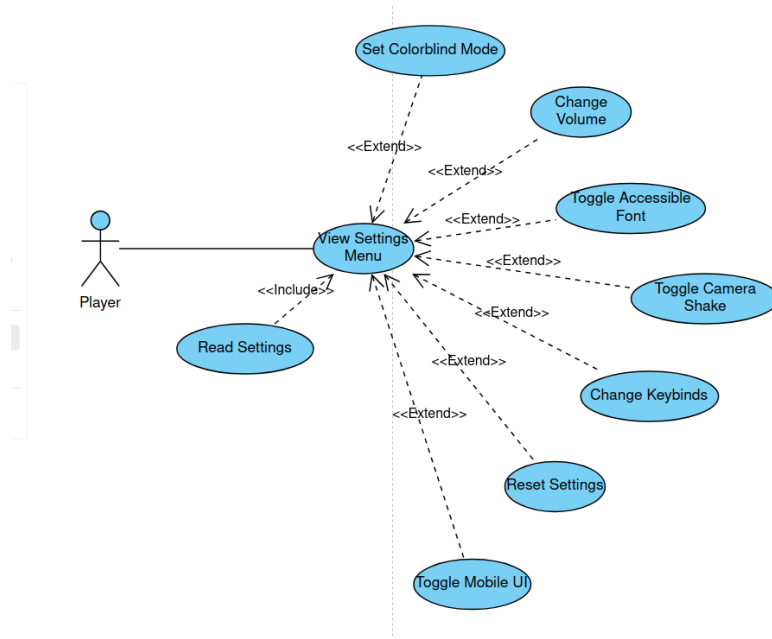
D: The settings menu is selected and is then displayed.

Post conditions: Do what the user requests (settings, quit game, restart game, or resume game)

Priority: 1

ID: C01

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



Name: Display Settings Menu

Summary: The User has opened the Settings Menu

Actors: User

Preconditions: The Game is either paused or not in play

Basic sequence:

Step 1: The player accesses the settings menu through the pause menu or main menu

Step 2: The current settings are read from memory

Step 3: The Setting menu is displayed

Step 4: The user makes possible changes as desired

Exceptions:

A: Color Blind Mode is Enabled/Disabled

B: The Volume settings are changed

C: The use of an accessible font is toggled

D: The use of in-game camera shake is toggled

E: The keybinds are changed

F: The settings are reset to their default options

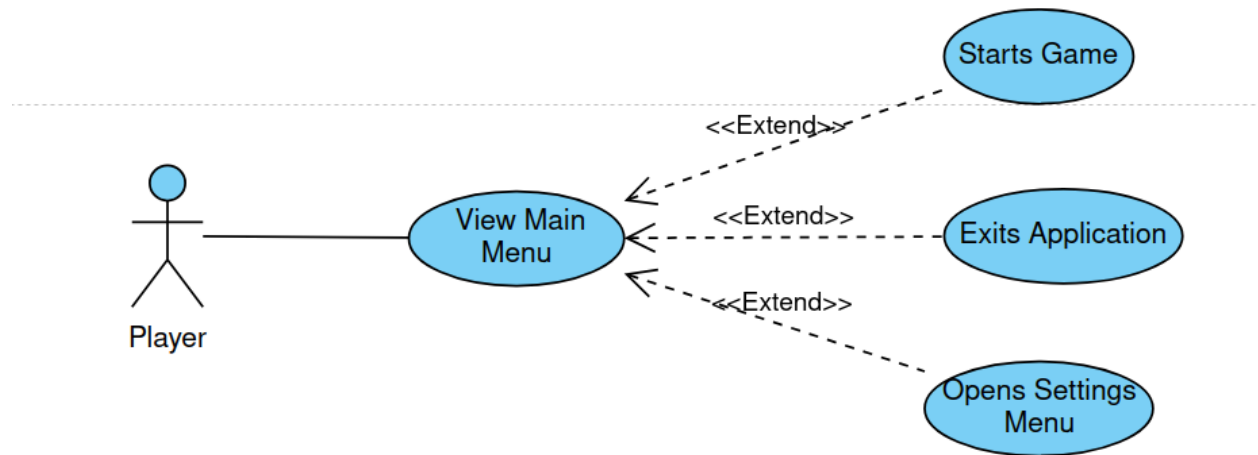
G: The Mobile UI (controls) are toggled.

Post conditions: Save settings to memory

Priority: 2.5 (some options are less essential than others)

ID: C02

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



Name: Display Main Menu

Summary: The User has opened the Main Menu

Actors: User

Preconditions: The game is not in play

Basic sequence:

Step 1: The main menu is displayed

Step 3: The user selects one of three options

Exceptions:

A: The game is started

B: The settings menu is opened

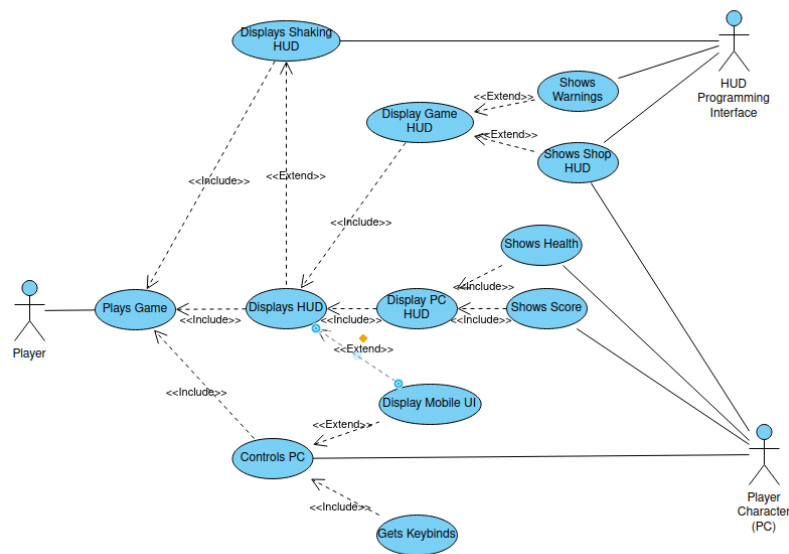
C: The application is closed

Post conditions:

Priority: 1

ID: C03

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



Name: User Plays Game

Summary: The Game is being played

Actors: User, HUD programming interface, Player Character

Preconditions: The game is currently in play

Basic sequence:

- Step 1:** The game is loaded
- (Each Frame, Repeat steps 2-
- Display the Game HUD
- Get the health and score from the player character
- Display the Player Character HUD
- Display the HUD
- Read Keymap from memory
- Get User Input to control the PC

Exceptions:

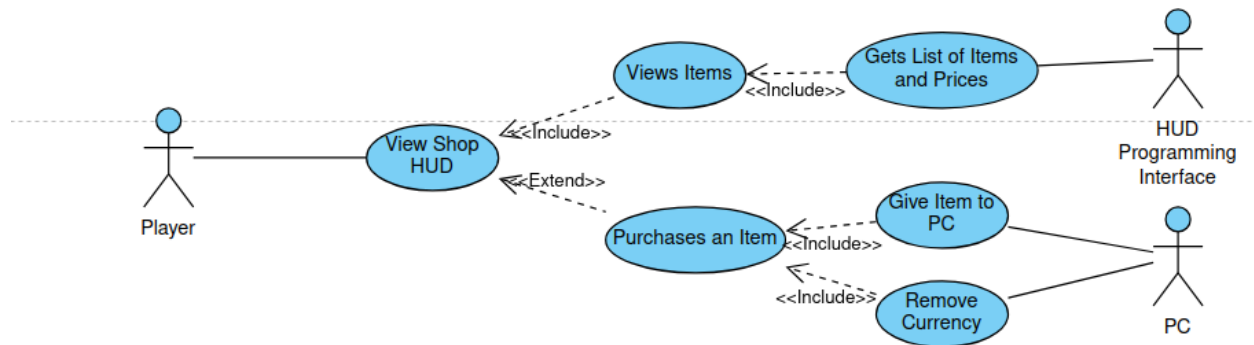
- A:** If the mobile UI is toggled, Display that, and use that input to control the PC
- B:** If the HUD API requests the HUD to be shaken, shake the HUD
- C:** If the HUD API requests a warning to be shown, show a warning
- D:** If the HUD API requests a shop to be shown, show a shop HUD

Post conditions:

Priority: 1.5 (some elements are less important, such as the shaking HUD)

ID: C04

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



Name: A shop HUD is being displayed

Summary: The Game is being played

Actors: User, HUD programming interface, Player Character

Preconditions: The game is currently in play

Basic sequence:

Step 1: The HUD API obtains a list of items and prices to display

Step 2: The HUD is displayed

Step 3: The HUD displays the list of items

Exceptions:

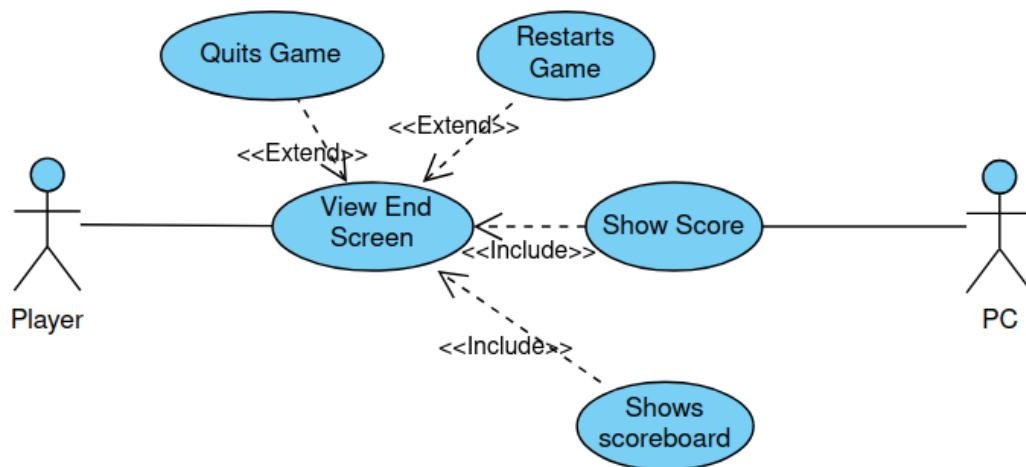
A: If the User purchases an item, the item is then given to the PC and currency is removed in exchange

Post conditions:

Priority: 2 (some elements are less important, such as the shaking HUD)

ID: C05

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



Name: The End Screen is shown

Summary: The end screen shows the score, and lets the user quit or restart

Actors: User, Player Character

Preconditions: The game has ended

Basic sequence:

Step 1: The final score is obtained from the PC

Step 2: The screen is displayed

Exceptions:

A: The user quits the game

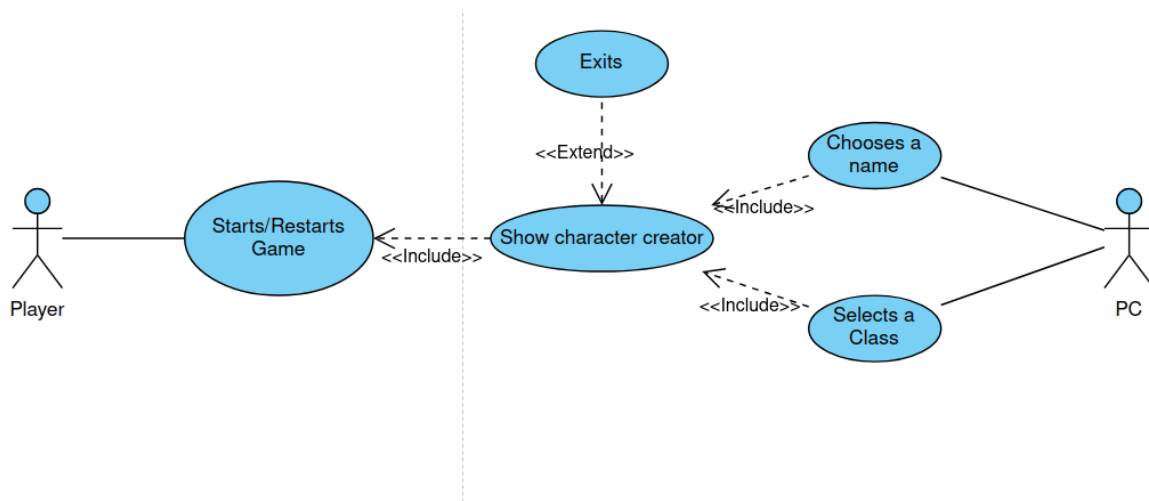
B: The user restarts the game

Post conditions: Do what the user wants

Priority: 1

ID: C06

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



Name: The Game is started or restarted

Summary: The player needs to create a character before playing the game

Actors: User, Player Character

Preconditions: The game is about to begin

Basic sequence:

Step 1: The player chooses to start a new game

Step 2: The character creator is shown

Exceptions:

A: The player exits and returns to the main menu

Post conditions: either create a PC with the name and class or return to the main menu

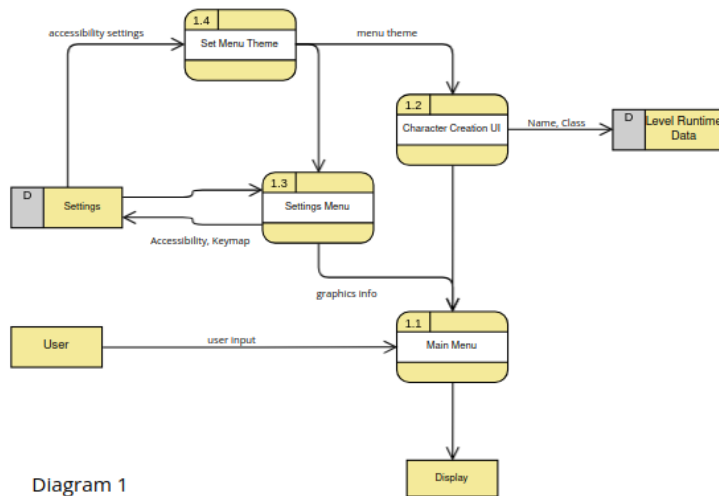
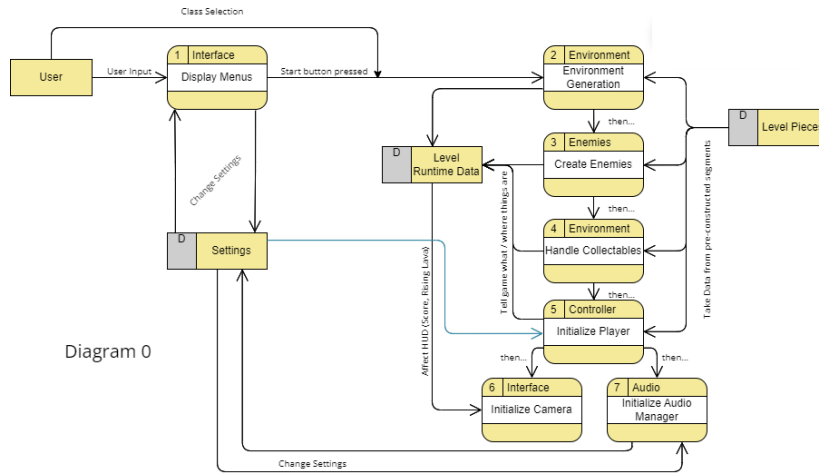
Priority: 2

ID: C07

*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 ____14

Data Flow Diagrams



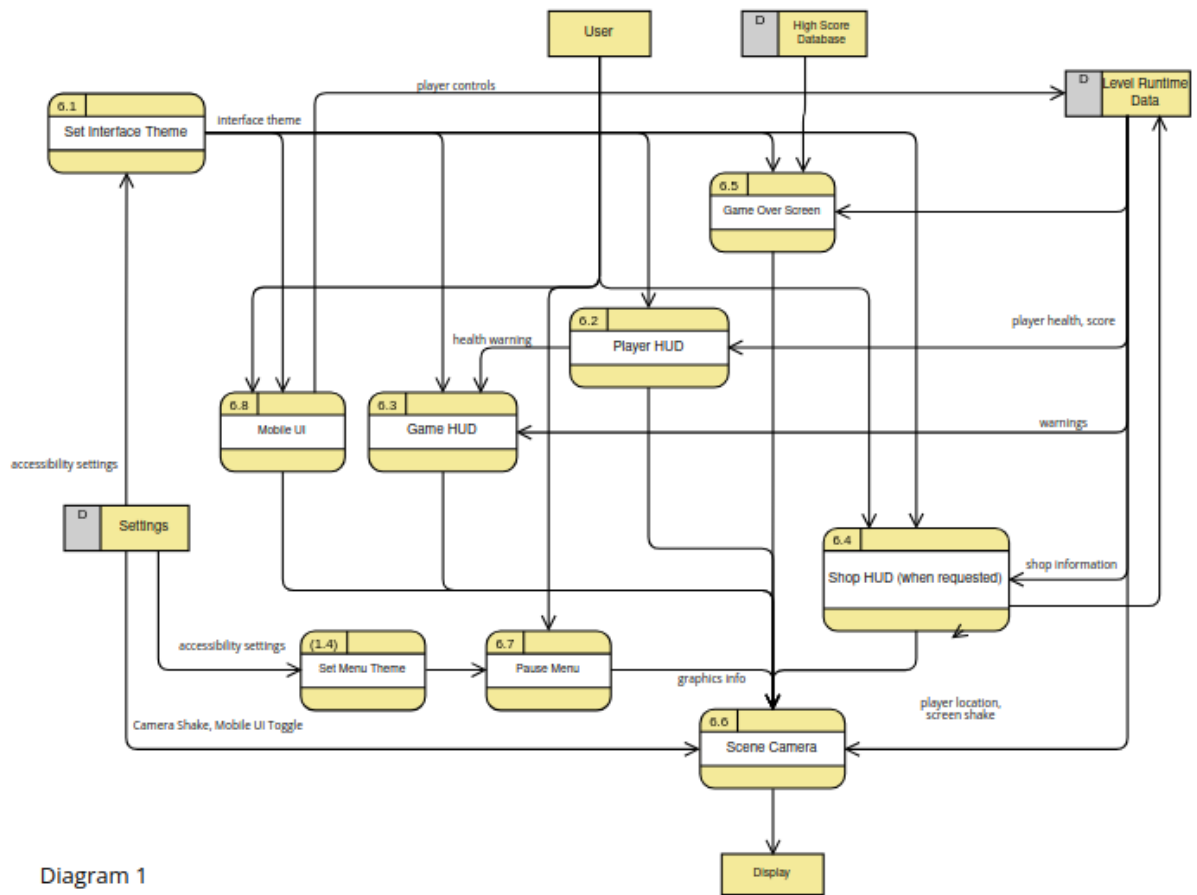


Diagram 1

Process Descriptions

Main Menu:

WHILE option not selected:

Display Quit Button

Display Settings Button

Display Start Button

IF settings pressed:

Display Settings

ELIF start pressed:

Display Character Creation UI

ELIF quit pressed

Exit Application

END

END

END

Character Creation UI:

WHILE name not entered OR class not selected:

Display name entry element and class selector element

END

END

Settings Menu:

WHILE back button not pressed:

Display various settings set to their current value

END

END

Set Interface/Menu Theme:

Read accessibility settings

Configure interface/menu theme to input

END

Player HUD:

 WHILE playing

 Get player health and score

 display player health and score

 END

END

Game HUD:

WHILE playing

IF warning received: display warning

END

END

Shop HUD:

WHILE current shop != null

Get current shop information

Display current shop information

IF item clicked:

 Give Item to player

 Remove Item from shop

END

END

END

Mobile Controls:

Display Player Controls

WHILE button pressed:

send action to player

END

END

Scene Camera

 WHILE playing

IF game paused:

 Display Pause menu

Else:

 Set position to current player position

 Display Shop HUD IF current shop != null

 Display Game HUD

 Display Player HUD

 IF screen shake requested

 Shake HUD

 END

 IF Mobile UI Toggle

 Display Mobile UI

 END

 END

END

4. Acceptance Tests _____9

To determine if the interface works as designed, test data for health and score will be fed into the game and visual confirmation on all platforms will be necessary.

Unit testing the various external calls for screen shaking can also be done to ensure that they work properly. visual confirmation is necessary.

To determine if the settings menu works as designed, each individual setter can be fed test data and then the game can be tested to ensure that each one works as designed. visual confirmation.

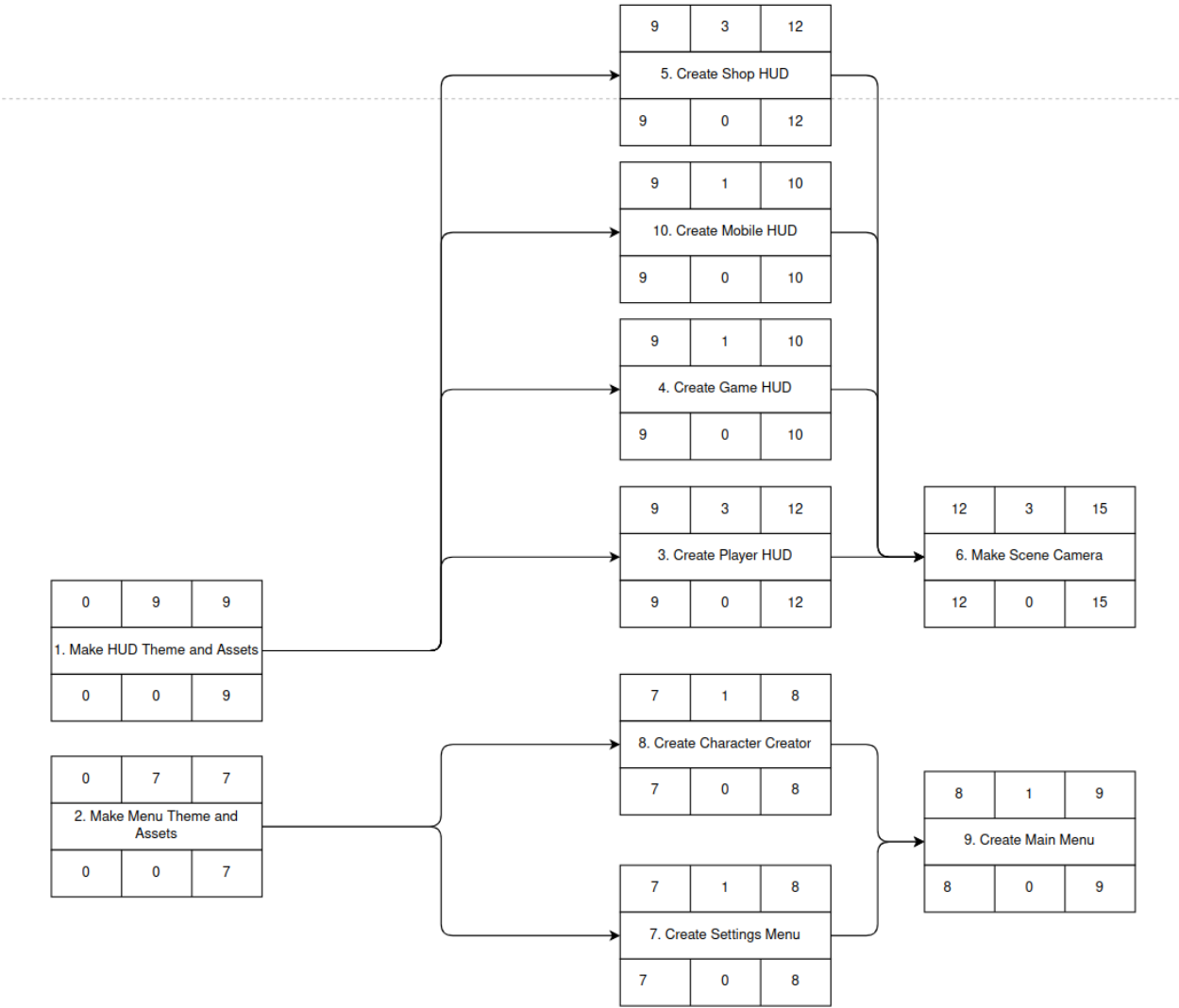
5. Timeline ____/10

(create in this case means either find or make the required asset)

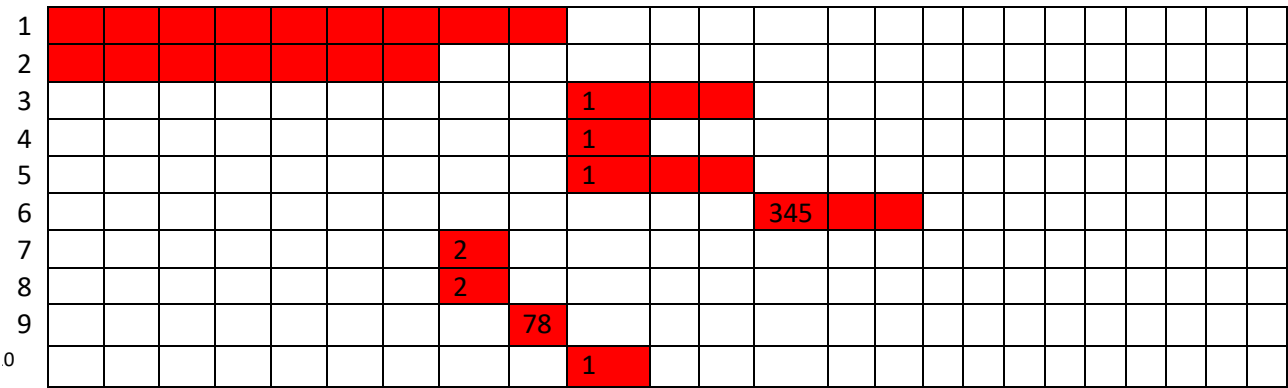
Work items

Task	Duration (Hours (out of 30))	Predecessor Task(s)
1. Make Interface/HUD Theme and Create Assets	9	0
2. Make Menu Theme and Create Menu Elements (Toggles, Sliders, Keyboard Input, Text Buttons, Key Select)	7	1
3. Create Player HUD (health)	3	1
4. Create Game HUD (warnings)	3	1
5. Create Shop HUD	3	1
6. Create Scene Camera	1	3, 4, 5, 10
7. Create Settings Menu	1	2
8. Create Character Creator	1	2
9. Create Main Menu	1	2, 7, 8
10. Create Mobile HUD	1	1

Pert diagram



Gantt timeline



11	22	33	44	55	66	77	811	91	1111	2	33	1	2	3
										2				