

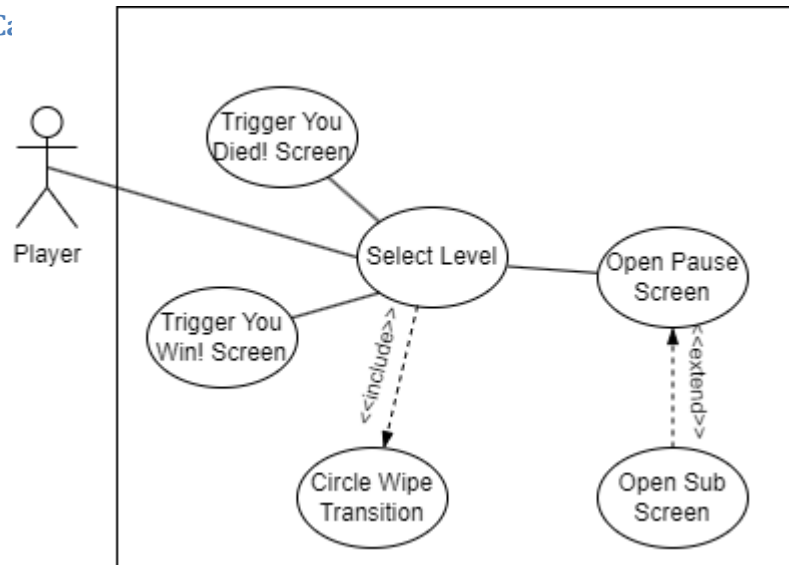
## 1. Brief introduction \_/3

The first feature I've been tasked with making is all user interface screens for Peg Head. These screens include, but are not limited to, the following: the pause screen which players can enter mid game in order to retry the level, open up settings, or exit to level selection; the "YOU DIED!" screen which is displayed whenever a user dies and fails to complete a level; the "YOU WIN!" screen which is displayed whenever a user completes a level; the start screen which includes a "PLAY" button along with the game's title and a background graphic; the settings screen which is opened up through the pause menu; and a transition effect known as "circle wipe" which is played whenever the user changes scenes. Most of these user interfaces will be referenced from the game that is inspiring us, which is "Cuphead".

The second feature that I will be completing is finding sound effects and audio for all of the different objects in the game. This includes, but is not limited to, character death sounds, character hurt sounds, button click sounds, background music, boss fight music, and weapon sounds. To accomplish this task, I will go onto "freesound.org" most of the time to search a piece of audio that fits my specific scenario. Once again, to determine what type of sound I need for a given instance, I will look to "Cuphead" for ideas.

## 2. Use case diagram with scenario \_14

Use Case:



## Scenarios

### Scenario 1 (1<sup>st</sup> Use Case Diagram):

**Name:** Interact With Game UI

**Summary:** The player selects a level from the level select screen, then when in game they can trigger the “YOU WIN!” or “YOU DIED!” screens by their completion of the level or failure thereof. The player can also open the pause screen while in a level which has the exception of them opening a sub screen within the pause screen, if the player desires to do so.

**Actors:** Player

**Preconditions:** The player has launched the game using Unity and has pressed the “PLAY” button the play screen.

**Basic sequence:**

**Step 1:** The player selects a level from the level select screen, then a circle wipe transition plays as they enter the level.

**Step 2:** The player chooses to click pause and open the pause menu while they are still in the level.

**Step 3:** The player either completes or fails to complete the level, in which case a “YOU WIN!” or “YOU DIED!” screen would be triggered.

**Step 4:** A circle wipe transition plays, and the player re-enters the level select screen.

**Exceptions:**

**Step 2:** The player could open another sub screen in the pause screen.

**Post conditions:** The player has completed or failed to complete a level in the game and has returned to the level select screen.

**Priority:** 1\*

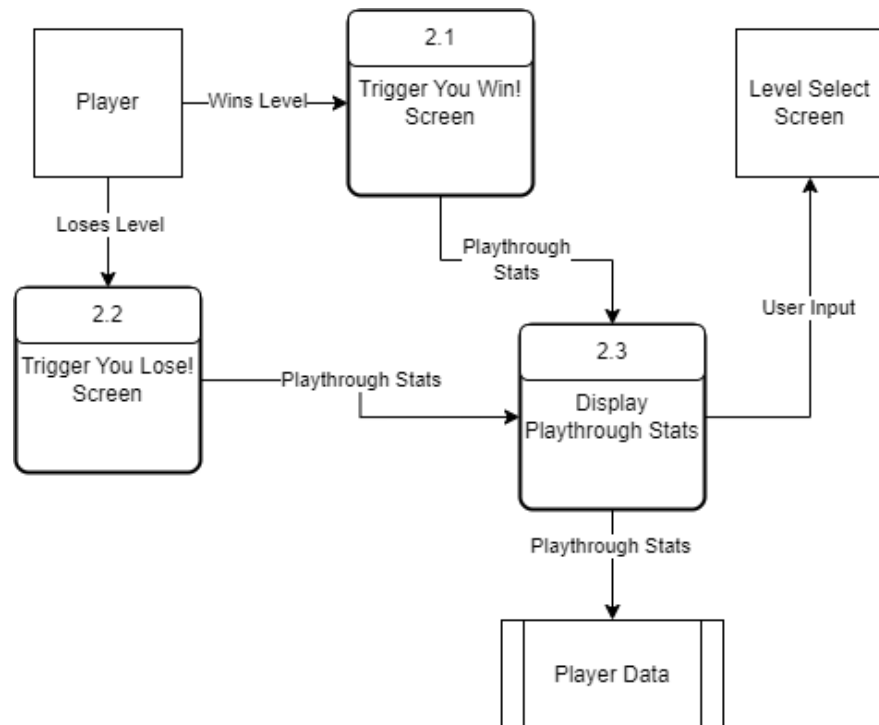
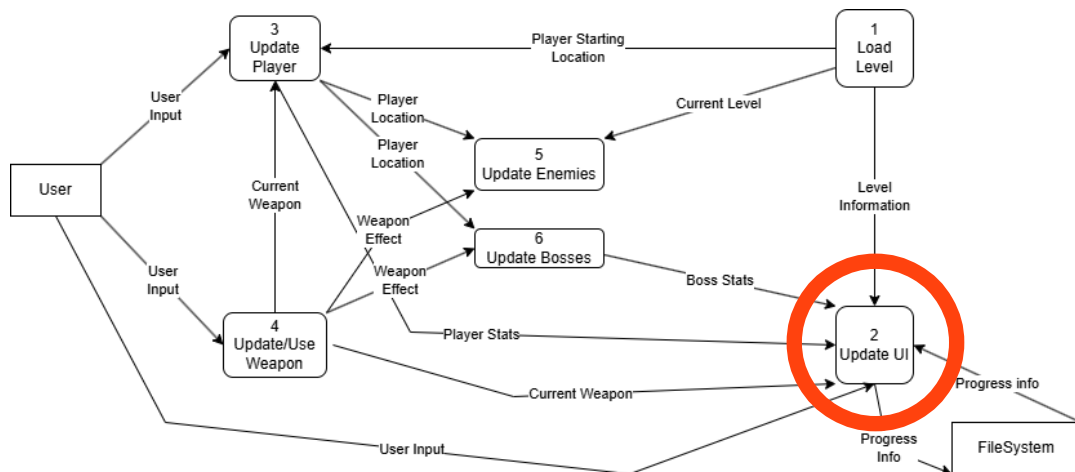
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\*The priorities are 1 = must have, 2 = essential, 3 = nice to have.

### 3. Data Flow diagram(s) from Level 0 to process description for your feature 14

In the data flow diagrams below, I will be covering the Math Assignment Feature in entirety. I will describe the “Assign Environment Object” sub-process with a decision tree

#### Data Flow Diagrams



## Process Descriptions

While in a level:

    WHILE player is alive

        IF player won level

            trigger "YOU WIN!" screen

        break out of the loop

        IF player pressed pause button open the pause menu screen

            open the pause menu screen

    END WHILE

    IF player is not alive

        trigger "YOU LOSE!" screen

hide the triggered screen

send the stats to and display the play-through stats screen

save the play-through stats to player data for future comparison when the player completes the level again

the user exists the play-through stats screen to repeat the loop and at a level select screen

## 4. Acceptance Tests \_\_\_\_\_9

To test this feature, we will run the following tests:

User presses the pause button while in a level → Does this correctly open the pause menu?

User presses the pause button while in level select screen → Does this correctly not open the pause screen because the user is not in a level?

User completes a level for the first time → Does this trigger the "YOU WIN!" screen and then the play-through stats screen with the correct data indicating how the player performed throughout the level?

User completes a level for the Nth time → Does this trigger the "YOU WIN!" screen and then the play-through stats screen with the correct data indicating how the player performed throughout the level, while with the added requirement of conveying the comparison to their best performance on that level in previous tries?

User selects a level → Does this place the user in the correct level?

User dies in a level → Does this trigger the “YOU DIED!” screen and then the play-through stats screen with the correct data indicating how the player performed throughout the level?

Play-through stats entered into player data → Are the play-through stats present in the player's data after they finish the level?

User exits the play-through stats screen → Does this take the player immediately to the level select screen?

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

## Work items

Task	Duration (PWKs)	Predecessor Task(s)
1. Circle Wipe Transition	2	3
2. Play Through Stats Screen	6	1, 4, 5
3. Play Button Screen	4	-
4. You Died Screen	1	1
5. You Win Screen	1	1
6. Pause Screen	6	7
7. In Game HUD	6	1

## Pert diagram

## Gantt timeline

