Name: Chetanna Amadike Mark \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/50

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

## Brief introduction \_\_/3

I will be overseeing the main menu, pause menu, game over screens and overall, any HUD elements displaying player stats. These elements are crucial in ensuring smooth navigation and conveying essential game information to the player. A well-designed UI enhances the overall experience, making it intuitive and visually appealing while keeping players immersed in the action.

The main menu will serve as the players’ first impression of the game, setting the game’s tone with an engaging design, background animation and appropriate music for the theme of the game. It should be easy to navigate while maintaining its strong visual identity that aligns with the fast-paced experience the game provides. The pause menu will be quick and easy to access allowing players to resume, adjust settings or exit without any interruptions to the experience. Similarly to the pause menu, the game over menu will also be easy to interpret providing a dramatic visual transition, or an option to continue playing. It should keep the player engaged rather than frustrated.

The HUD will display all the players’ most important stats, it will be minimal yet informative ensuring that players can quickly glace at it without removing the player from the immersion of the game. The placement and readability will be crucial in making sure the player is not distracted from the experience.

The UI for our game must match the energetic, action-packed nature of the game while remaining user-friendly, with the details enhancing the experience rather than hindering it.

## Use case diagram with scenario \_\_14

[Use the lecture notes in class.

### Use Case Diagrams

Use Case 1

A diagram of a person with text

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A diagram of a person with Ice hockey rink in the background

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### Scenarios

**Name:** Use Case 1

**Summary:** The player interacts with the menu to pause, play and exit the game

**Actors:** Player

**Preconditions:** Game is started and running

**Basic sequence:**

**Step 1:** Player accesses the main menu

**Step 2:** Player selects an option (play, pause, exit)

**Step 3:** Player can pause game at any time

**Step 4**: When paused, player can resume or return to main menu

**Step 5:** If the game ends, player can either retry or exit to main menu

**Exceptions:**

**Step 1:** Player tries to pause without starting the game

**Step 2:** Incorrect button is pressed to pause game

**Post conditions:** The player’s choice is executed

**Priority:** 2\*

**ID:** M01

**Name:** Use Case 2

**Summary:** The game HUD displays the player's health, score, and ammo in real-time.

**Actors:** Player

**Preconditions:** Game is started and running

**Basic sequence:**

**Step 1:** Display the player health

**Step 2:** Update and show score

**Step 3:** Display Players current ammo count

**Step 4**: Update HUD based on game events

**Exceptions:**

**Step 1:** If health reaches zero, game over screen is triggered

**Post conditions:** Player stats are updated in real time

**Priority:** 2\*

**ID:** H01

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

## Data Flow diagram(s) from Level 0 to process description for your feature \_\_\_\_\_\_\_14

[Get the Level 0 from your team. Highlight the path to your feature]

: A diagram of a system

AI-generated content may be incorrect.A diagram of a computer

AI-generated content may be incorrect.

### Process Descriptions

UI Navigation Process

* WHILE the game is running
  + IF player presses menu button
  + Call OpenMenu()
* IF player selects an option within a menu
  + Call MenuSelection
* IF player presses back or close button
  + Call CloseMenu()

IF a menu is already open:

Hide current menu

## Acceptance Tests \_\_\_\_\_\_\_\_9

[Describe the inputs and outputs of the tests you will run. Ensure you cover all the boundary cases.]

**1. Main Menu**

**Procedure:**

* Launch the game and verify the main menu appears.
* Test all menu options
* Navigate using both keyboard/controllers.

**Expected Output:**

* "Start Game" initiates first level.
* "Options" displays settings.
* "Quit" exits the game.
* Navigation works without delay or freezing.

**2. Pause Menu**

**Test Procedure:**

* Pause the game at different points in gameplay.
* Navigate through the pause menu options (Resume, Restart, Quit).

**Expected Output:**

* "Resume" continues the game.
* "Quit" returns to the main menu.
* The game remains frozen while paused.

**3. Game Over Screen**

**Test Procedure:**

* Lose all lives and verify the game over screen appears.
* Check the “Retry" and "Main Menu" buttons.

**Expected Output:**

* "Retry" restarts the level from the start of level
* "Main Menu" returns to the title screen.

- Score and stats are displayed correctly.

**4. HUD (Heads-Up Display)**

**Test Procedure:**

* Start the game and observe the HUD.
* Take damage, collect items, and defeat enemies to see HUD updates in real time

**Expected Output:**

* Player health decreases when hit.
* Ammo count updates when firing.
* Boss health bar appears in boss fights.

**5. Boundary Cases**

- Rapidly pausing and unpausing does not crash the game.

- HUD remains visible during all gameplay moments (except cutscenes).

- Main menu remains responsive even when spam-clicking buttons.

## Timeline \_\_\_\_\_\_\_\_\_/10

[Figure out the tasks required to complete your feature]

Example:

### Work items

|  |  |  |
| --- | --- | --- |
| Task | Duration (HPW) | Predecessor Task(s) |
| 1. Conceptualize HUD graphic ideas | 6 | - |
| 2. Main Menu UI Development | 5 | 1 |
| 3. Pause Menu UI Development | 5 | 1 |
| 4. Game Over Screen UI Development | 5 | 1 |
| 5. HUD Design and Implementation | 6 | 1 |
| 6. UI Animations, Effects and Transitions | 5 | 2,3,4,5 |
| 7. User Input and Navigation Integration | 5 | 6 |
| 8. UI Sound Effect Integration | 4 | 6 |
| 9. UI Testing, Bug fixing and optimization | 6 | 7,8 |
| 10. Final Integration and Polishing | 4 | 9 |

### Pert diagram

A diagram of a diagram

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### Gantt timeline

