

CMSC 447
Software Design and Development
Fall 2023

User Interface Design Document

The Boundless Hollow
User Interface Design Document
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1. Introduction

1.1 Purpose of This Document

The purpose of this document is to serve as a comprehensive guide for the design and implementation of the game's user interface. The intended audience of this document includes game designers, developers, artists, and other team members needed for creating and integrating the user interface. This document outlines the specific guidelines towards creating the detailed HUD, menus, and in-game prompts. It also provides a roadmap towards creating an immersive gaming experience by presenting a unified vision for the game's UI, that ensures consistency, usability, and the integration of the interface within the gaming environment.

1.2 References

- Unity Documentation

2. User Interface Standards

Our design standard aims to maintain a consistent and intuitive user interface (UI) throughout the system, to enhance the user experience. The general screen layout follows a structured design between the menu and the game screen to optimize user engagement and navigation. Illustrated below is an example of the two screens mentioned before.

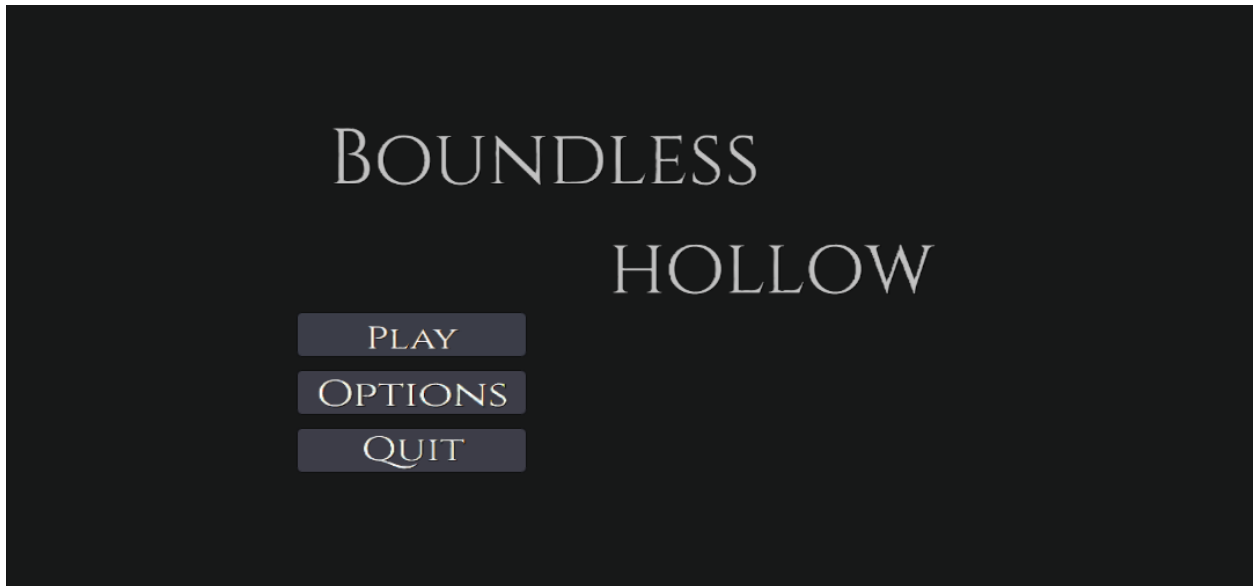


figure 1.

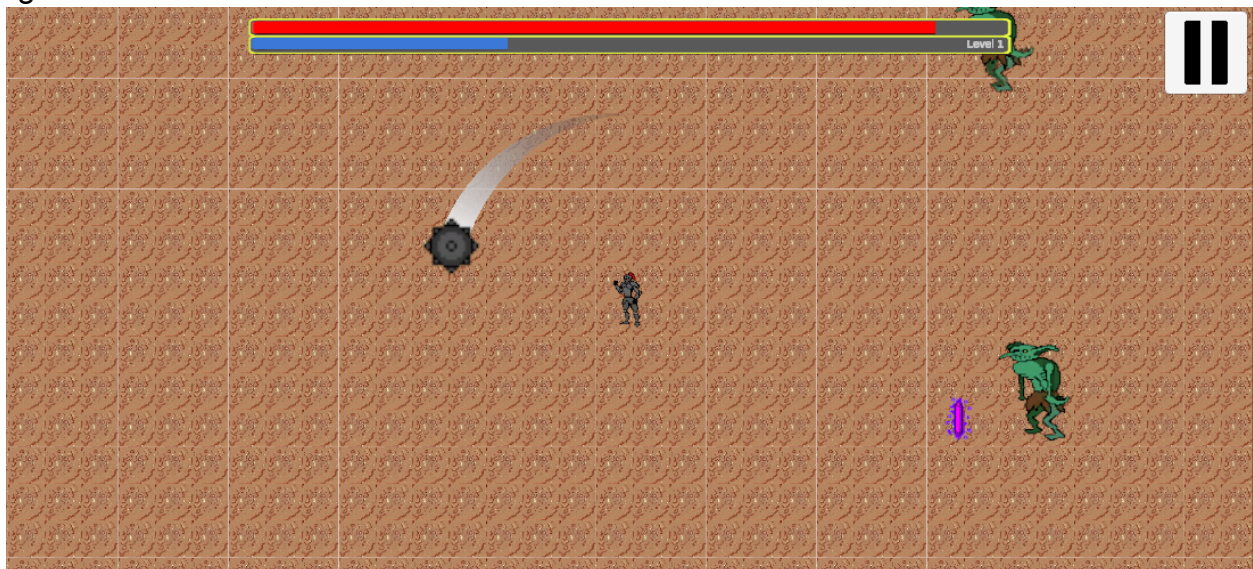


figure 2.

The first screen layout (figure 1) holds several components to easily navigate through the game. As the title screen we have three UI components that allows the user to move either to press [Play] to play the game, [Options] lead to an options menu to

control audio and game system, and lastly [Quit] the ability to quit out of the game. This layout ensures that the user can easily navigate through the menu to begin playing the game as quickly as possible.

The second screen layout (figure 2) represents the Play screen (Game screen) Holding the HUD [HP] and [EXP] bars that displays your current HP as well as current level and amount of HP you have left. This is to easily convey necessary information to the player so they can receive instant feedback. The next component is the [Pause button] on the top right corner. This component allows you to pause the game as necessary so one can play the game to their leisure. Within the pause menu we also included two more components to [Continue] the game or to [Home] to go back to the home screen and quit the current game that the user is playing.

3. User Interface Walkthrough

The diagram below (figure 3) shows how each screen interacts with each other. Screen 1 is the Main menu, 2 is the Options menu, 3 is the Game screen, 4 is the Pause menu, and lastly 5 is the You are dead screen. Each arrow shows how each screen can move to one another.

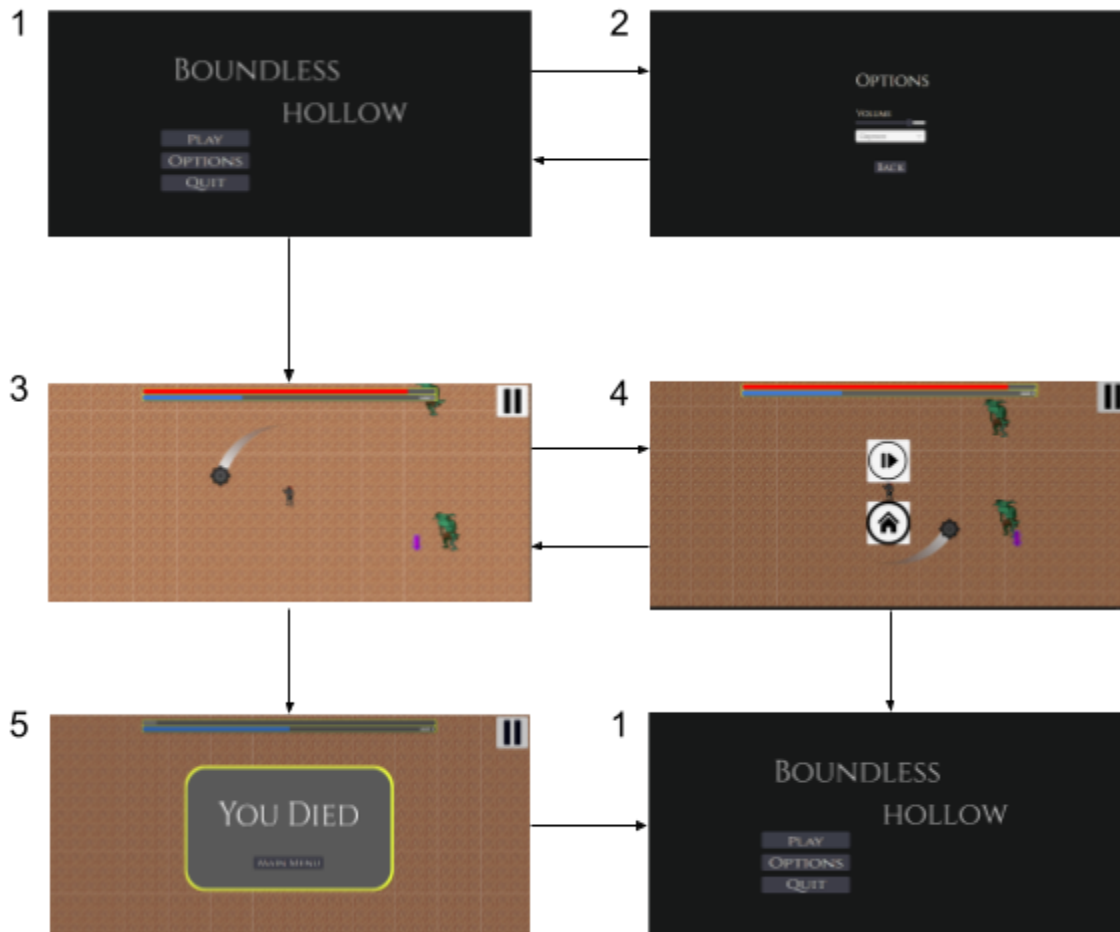


figure 3.

The diagram above (figure 3) shows each screen within the game.

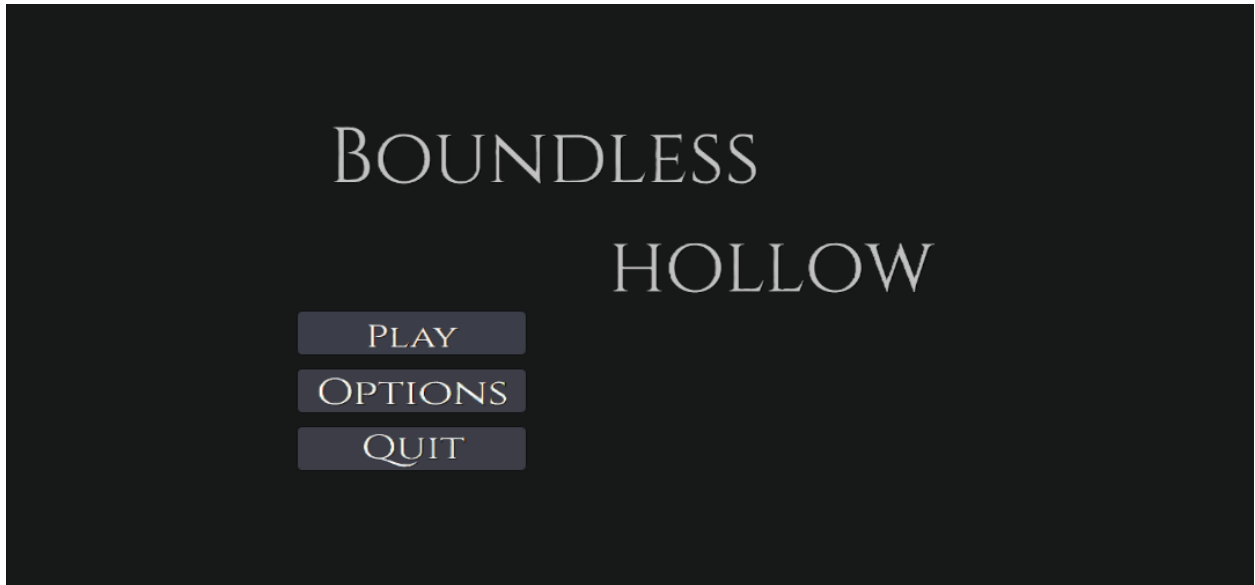


figure 1 (screen 1)

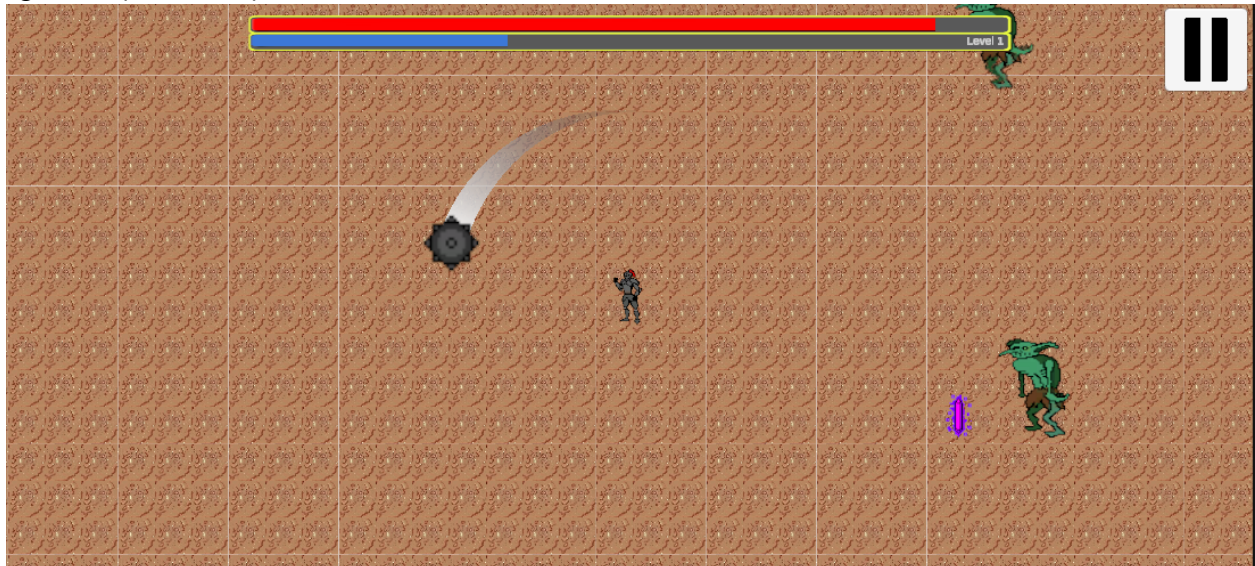


figure 2 (screen 3)

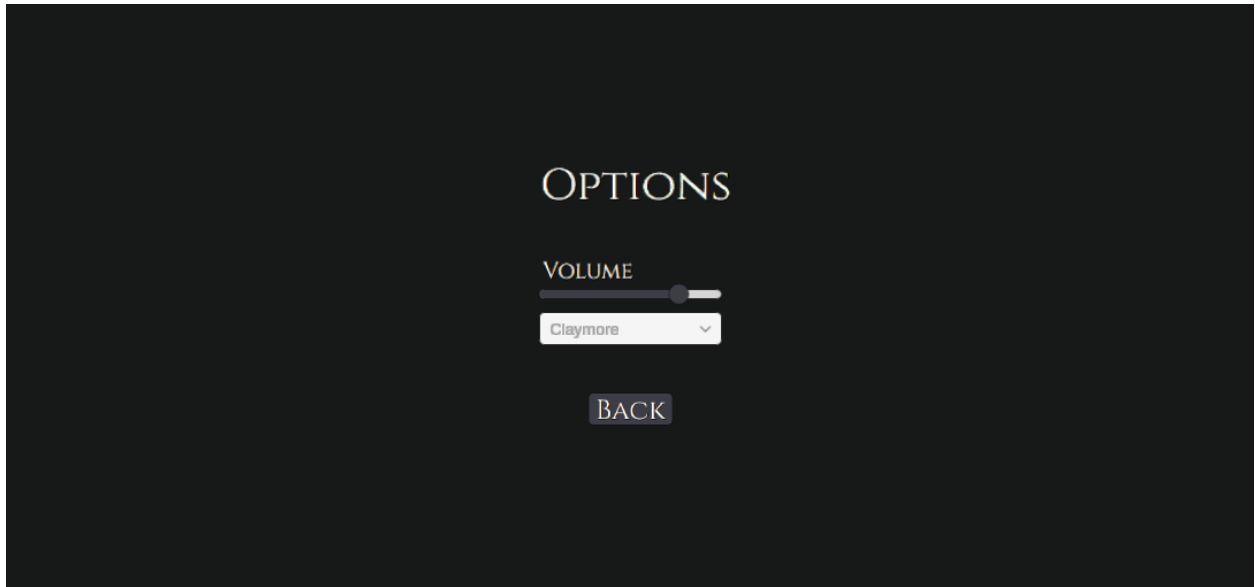


figure 3 (screen 2)

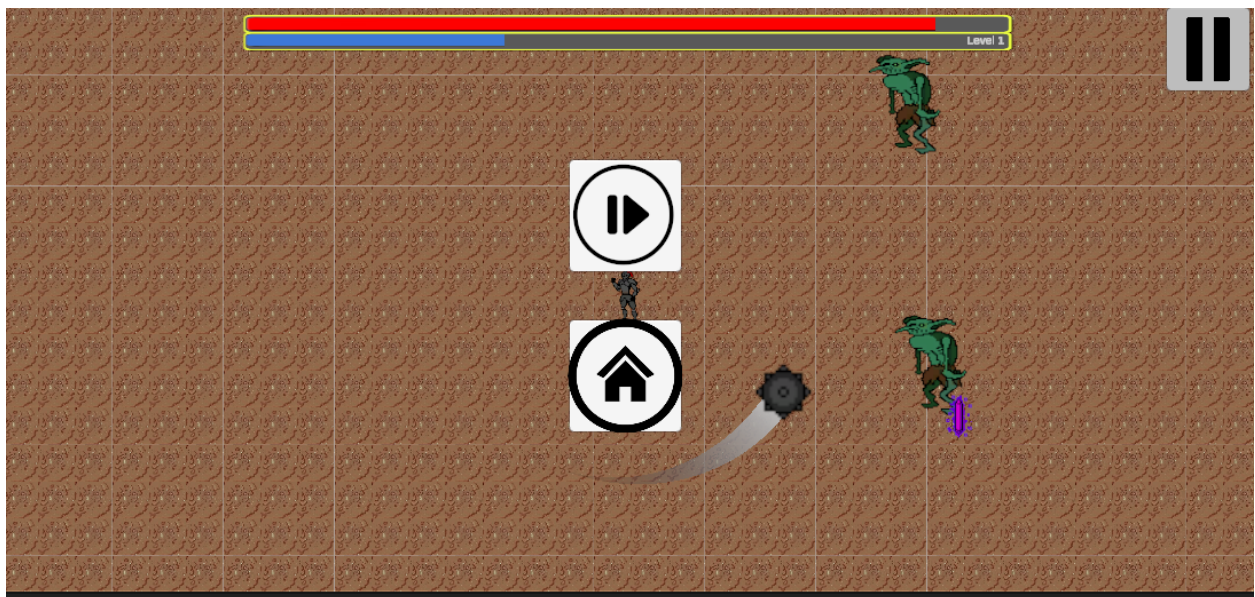


figure 4 (screen 4)



figure 5 (screen 5)

The main menu (screen 1) includes three components mentioned in Section 2 for figure 1. The main menu screen is a central component that facilitates efficient navigation and interaction with the system. It is designed to focus on clarity, simplicity, and accessibility to create a user-friendly interface.

The options menu (screen 2) is a vital component that allows the users to personalize their gameplay experience. Its intuitive design, clear categorization, and interactive element contributes to a user-friendly, customizable game interface application. This screen includes three more components. The first component is the [volume slider] that allows the user to adjust the volume of the game. The second component is a [drop down menu] where the user can choose their starting weapon within the game. Lastly the third component is a [back] button to take the user back to the main menu (screen 1).

The Game screen (screen 3) also includes three components that are mentioned in Section 2 for figure 2. This screen is our user's gateway to the virtual world. The game screen serves to be dynamic and interactive that allows the users to immerse themselves in the gameplay in which its design focuses on its functionality and aesthetics.

Next, is the Pause menu (screen 4) that provides a convenient and user-friendly interface for users to manage their gaming experience without interrupting the overall flow of the game. This screen includes two components. The first is the [continue] button that allows the user to continue playing the game that was paused, and we also included the [home] button to take the player back to screen 1 if they want to quit the game.

Lastly, we have You are dead screen (screen 5). Designed to display a clear message that you have lost the game and gives you the option to start over and play again. This screen only includes one component which is the [Main Menu] button that takes you back to screen 1.

4. Data Validation

The user may only input one data type, at the start of the game, within screen 2. To do so they use a drop down menu to pick what weapon they wish to use when they begin the game.

Data Item	Description	Data Type	Limits and Formats
Weapon	User's preferred weapon	Drop Down	List of every available starting weapon in the game

Appendix A – Agreement Between Customer and Contractor

When the customer and our team collectively sign off on this document, it will signify a mutual agreement on the specifications, design standards, and requirements outlined within this document. The customer acknowledges the proposed user interface elements as described within this document. Simultaneously, our team commits to implementing and delivering a product that aligns with these agreed-upon specifications. This agreement serves as a foundation and understanding guide for the development process, fostering transparency and shared expectations between the customer and the development team.

In the event of future changes or updates to the document, a systematic procedure will be followed to ensure accountability. Any proposed changes should be submitted in writing. This will detail the modifications or additions required. This document will then undergo a review process involving relevant stakeholders from both the customer and the team. Once a consensus is reached, an updated version of the document will be created, and all parties will re-evaluate and confirm their agreement. This structured procedure aims to become an effective communication method, and accommodate the evolving project as needed, and maintain alignment between the customer's expectations and our developmental efforts.

Kabeer Alabi

Print Name

CJ Vittek

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Nahim Kamruzzaman

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Tae Hyung Kim

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Collins Ufua

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Customer

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Signature

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Customer

Signature

Appendix B – Team Review Sign-off

After thorough review and discussion, all members of the team have carefully examined the document, and unanimously agreed regarding its content and format. This collaborative team effort has allowed us to incorporate diverse perspectives from one another, ensuring that the document accurately represents our shared understanding of the project requirements and design standards. We are confident that this agreement reflects the collective vision of the team.

Kabeer Alabi

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Appendix C – Document Contributions

Tae Hyung Kim - Section 2, Section 3

Kabeer Alabi - Appendix A, Section 2

CJ Vittek - Appendix B, Section 3

Nahim Kamruzzaman - Section 1, Section 4

Collins Ufua - Section 1, Section 4