Project Phase I

Blind Seeker

CS 4361.001 - Computer Graphics

Version Control (Github): https://github.com/oltoms/Computer-Graphics-Group-8

Goals of the Project

1. Game Objective: Create a fully functional game where the player must navigate through a labyrinth and escape within a limited time while experiencing "blindness." The player will rely on sound-based echolocation for spatial awareness.
2. Core Mechanics: Implement a sonar-like system that outlines the environment (Walls, doors, paths, etc.) with each footstep the player takes, simulating echolocation similar to how bats navigate in the dark.
3. Audio-Driven Feedback: Develop distinct sounds for obstacles like walls, paths, doors, and any other relevant elements of the game world.
4. Obstacle Interaction: Introduce interactive obstacles that provide feedback to help the player distinguish and navigate their path more effectively.
5. Time Constraints: Introduce a timer that adds urgency, challenging the player to escape the labyrinth before time runs out, increasing tension and immersion.
6. Player Experience: Focus on creating a unique and challenging experience that emphasizes sound and strategic movement, allowing players to adapt to "blind" navigation in a virtual space.
7. Testing and Iteration: Conduct playtests to gather feedback on the effectiveness of the sonar mechanic and overall gameplay experience, refining the game based on player input.

Tools/System/Software we are going to use

Our team has agreed to use C# and Unity for the development of this project. The designed operating system is WINDOWS and the IDE to be used is Visual Studio Code. We will also use Google Docs and Discord to collaborate in the documentation of the project and communicate with each other. For our version control, we will be using Github to show the different versions of each documentation and programs.

Timeline of the development

Phase 1: Planning and Initial Development (09/26 - 10/22).
Goal: Lay the foundation, implement core mechanics, and build an initial prototype.

- 09/22 - 09/26 (Project Setup and Design Finalization): Finalize the game design, including sonar mechanics, labyrinth layout, and time-based goals. Set up the game

engine and project structure. Start sketching out initial maze designs and audio requirements for echolocation.
- 09/27 - 10/08 (Core Mechanic Prototyping): Implement basic player movement and the sonar mechanic (To outline the environment using sound). Integrate sound effects and test how sonar outlines walls, doors, and obstacles. Begin development using simple labyrinth designs.
- 10/22 (Project Progress): Deliverable 2.

Phase 2: Iteration and Feature Expansion (10/23 - 11/10).
Goal: Build on the prototype by refining mechanics, and testing extensively.
- 10/23 - 10/25 (First Playable Prototype): Complete the initial version of the maze level and fine-tune the sonar mechanic. Implement the timer system that creates urgency in escaping the labyrinth. Begin internal playtesting to identify bugs and get feedback on basic gameplay.
- 10/25 - 10/30 (Feature Expansion): Fine-tune the sonar feedback system to improve clarity and player experience. Continue refining player movement and game mechanics to ensure smooth gameplay.
- 10/31 - 11/07 (Testing and Polishing): Conduct more thorough playtesting, focusing on game balance and difficulty. Adjust obstacles and sonar response based on player feedback. Fix any bugs or issues identified during testing.
- 11/08 - 11/10 (Working Demo Preparation): Finalize the playable demo, ensuring all key features (Movement, sonar, timer) are working correctly. Conduct a final round of internal playtesting to ensure stability.

Phase 3: Final Polishing and Demo Preparation (11/11 - 12/05).
Goal: Polish the demo, optimize performance, and prepare for the final presentation.
- 11/11 - 11/18 (Final Refinements): Polish the game mechanics, ensuring smooth performance and optimized gameplay. Refine sound design and layout based on final playtesting feedback. Make sure the game is bug-free and playable from start to finish.
- 11/19 - 12/03 (Project Presentation): Prepare a brief presentation explaining the game concept, mechanics, and development process. Test the demo thoroughly to ensure everything runs smoothly for the final submission.
- 12/05 (Final Presentation, Final Report and Program Code Submission): Deliverable 3.

Responsibilities of each individual in the group

As a team
- Project Manager & Game Designer: Oversees project scope, timeline, and design. Assigned to Cristina Kovacs, Tommy Wright, and Sofia Fleitas Hernandez
- Sound & Audio Engineer: Develops and implements all game sounds, focusing on echolocation. Assigned to Sofia Fleitas Hernandez, Zach Cava and Cristina Kovacs
- Lead Developer: Builds core gameplay mechanics (Movement, sonar, and timing). Assigned to Tommy Wright, Jose Torres and Zach Cava
- Level Designer & Environmental Artist: Designs the labyrinth and creates the game's environment. Assigned to Jose Torres, Sofia Fleitas Hernandez and Cristina Kovacs

- QA Tester & UI/UX Designer: Tests gameplay for bugs and optimizes the user experience. Assigned to Zach Cava, Jose Torres, and Tommy Wright

Individual contributions

Cristina Kovacs	Setting the tone for the overall design, as well as continuously checking in with the team to see if we are on track with the current schedule. Readjusting scope if necessary.
Jose Torres	Help design the main level environments and their functionality. This includes the setting, layout and interactivity.
Sofia Fleitas Hernandez	Helping with the description of the goals for the project, timeline of the development and responsibilities of each individual in the group. Formatting the project proposal. Contributing with the design of the UI.
Zach Cava	Help code the UI for the main, settings, and pause menus.
Tommy Wright	Creating the documentation, writing out the goals, and creating the first person point of view.

Changes made to the documentation

NAME	DATE	CHANGES	VERSION
Tommy Wright	9/01/2024	Added Tools/System/Software and Responsibilities	1.0
Sofia Fleitas Hernandez	9/21/2024	Added goals of the project, timeline of the development, and responsibilities of each team member	1.1
Tommy Wright	9/26/2024	Added a link to Github and assigning two/three team members to each responsibilities	1.2
Jose Torres	9/26/2024	Added to the broad goals and objectives of the project.	1.3
Sofia Fleitas Hernandez	09/26/2024	Formatted the document	1.4