Sphere Platformer Game Report

COSC 341 – Human Computer Interaction Assignment #1

Github repo: https://github.com/cartercsm9/Sphere-Platformer/

Contributions and Collaboration

Our team consisted of two members: Carter Meekison and Kenneth Abadi. We divided the tasks based on our individual strengths and areas of interest to maximize efficiency and productivity.

- **Carters Contributions:**
  - **Camera Dynamics:** I implemented dynamic camera switching to enhance player experience, providing different perspectives as the player progresses through the game. This involved using Unity's Camera component and scripting to switch views based on game triggers.
  - **UI Development:** I developed the in-game UI using Unity's TextMeshPro for displaying the score. This included coding dynamic changes in the text display, such as changing its position and size during different game phases (gameplay vs. endgame scenarios).
  - **Game Mechanics:** I integrated game mechanics such as resetting the player position and camera upon certain game events like touching an enemy. This was critical in developing the retry and progression logic of the game.
- **Ken's Contributions:**
  - **Enemy Positioning and Movement:** Ken programmed the enemy mechanics, defining their paths and interactions with the player. He used Unity's physics system to manage collisions and movement patterns that challenge the player's progress.
  - **Coin Collection Mechanics:** Ken also implemented the collectible items system where the player increases their score by collecting items placed strategically across the platforms. He managed the collider-based interactions and the score updates upon item collection.

Challenges and Solutions

- **Camera Control Challenges:** Initially, the camera setup did not align properly during the switch in views, causing disorientation. I refined the camera control system by adjusting the anchor and pivot points in Unity's RectTransform, ensuring a smooth transition and proper alignment.
- **UI Display Issues:** We encountered an issue where the score text displayed vertically due to incorrect RectTransform settings. I solved this by disabling word wrapping and adjusting the RectTransform width to accommodate longer strings, ensuring horizontal alignment.

Conclusion

Working on the Sphere Platformer Game allowed us to practically apply and enhance our skills in Unity game development and collaboration. Regular team meetings and shared responsibilities helped us effectively overcome the challenges we faced. The final product demonstrates our ability to create a cohesive and engaging game experience based on the requirements specified in COSC 341.