Project Description - 3D Platformer Obstacle Course Game in Unity

This project showcases an engaging 3D platformer obstacle course game developed using Unity, drawing inspiration from popular games like Fall Guys. The game offers a thrilling and dynamic experience where players navigate through a series of challenging obstacles to reach the finish line. It features three interconnected obstacle courses, each presenting unique challenges and requiring precise timing and skillful maneuvering to complete. The game is designed to test both the player's agility and strategic thinking through a variety of obstacles and collectible elements.

Gameplay Mechanics

The core objective of the game is to successfully navigate through all the obstacles and reach the finish line while collecting coins along the way. Players control a character using keyboard inputs, guiding them through an obstacle course filled with diverse challenges. The game's controls are intuitive, allowing players to jump, run, and maneuver around obstacles with precision.

Obstacle Variety

The game features a wide array of obstacles, each designed to test different aspects of the player's skills:

- **See-Saw Crossing Bridges**: Balance is key as players traverse these unstable platforms.
- **Moving Ridges**: Timing and speed are crucial to avoid falling off.
- **Pushing Pendulums**: Players must dodge swinging obstacles that can knock them off course.
- **Rotating Gates**: These require precise timing to pass through without being pushed back.
- **Moving Walls**: Walls shift back and forth, creating windows of opportunity to slip through.
- **Obstacle Balls**: Large balls roll across the path, requiring quick reflexes to avoid.
- **Moving Logs**: Logs move along a set path, necessitating careful jumps to stay on course.

Collectibles and Scoring

Throughout the obstacle course, players can collect coins. The number of coins collected and the time taken to complete the course are displayed at the top corners of the screen. These metrics serve as the primary evaluation criteria, encouraging players to replay the game to improve their scores and completion times.

Course Design

The game comprises three distinct obstacle courses, each connected by see-saw bridges. Players must cross these bridges to progress from one course to the next, adding an extra layer of challenge. The design of each course ensures a progressively difficult experience, keeping players engaged and motivated to improve.

Endgame and Evaluation

If the player falls off the obstacle course at any point, the game ends, emphasizing the importance of precision and careful navigation. Upon successfully completing the course, the player's performance is evaluated based on the time taken and the number of coins collected, providing a clear measure of success and areas for improvement.

User Interface

The user interface is designed to be clear and informative. The timer and coin counter are prominently displayed, giving players real-time feedback on their performance. The game's end screen provides a summary of the player's achievements and offers the option to restart, encouraging continuous play and improvement.

Development and Learning Experience

Developing this 3D platformer obstacle course game in Unity provided a comprehensive learning experience, covering key aspects of 3D game development such as character control, physics-based obstacles, collision detection, and user interface design. This project demonstrates the practical application of game development principles and serves as a strong foundation for creating more complex and engaging games in the future.