Flying Bird Coin Collector Game

Project Overview

This project is a simple 2D side-scrolling game developed using Unity and C#. The player controls a bird character whose goal is to collect coins to increase the score while avoiding bombs that reduce lives. The game focuses on clear gameplay mechanics, smooth performance, and user interaction.

Problem Statement

The problem addressed in this project is to design a simple yet engaging game that tests the player's attention, reaction speed, and decision-making skills. The game should have clear objectives, smooth controls, and proper feedback for player actions such as scoring and losing lives.

Solution / Approach

To solve this problem, a side-scrolling 2D game was designed where the bird moves continuously through the environment. Coins and bombs appear along the path. Collision detection is used to identify interactions between the bird and other objects. Coins increase the score, while bombs reduce the player's lives. The game ends when all lives are lost.

Game Features

- Smooth bird movement
- Coin collection system
- Bomb obstacle system

- Score tracking in real time
- Life management system
- Simple and clean user interface

Prototype Description

The developed prototype runs smoothly and reflects the intended solution. Player movement is responsive, collisions work correctly, and the score and lives update instantly. The prototype successfully demonstrates all core gameplay mechanics without performance issues.

Concept Clarity

The game has a clear objective: collect coins and avoid obstacles. The rules are simple and easy to understand. Visual indicators such as score and lives help the player track progress and make quick decisions during gameplay.

Technologies Used

- Game Engine: Unity
- Programming Language: C#
- Assets: 2D sprites
- Tools: Unity Editor

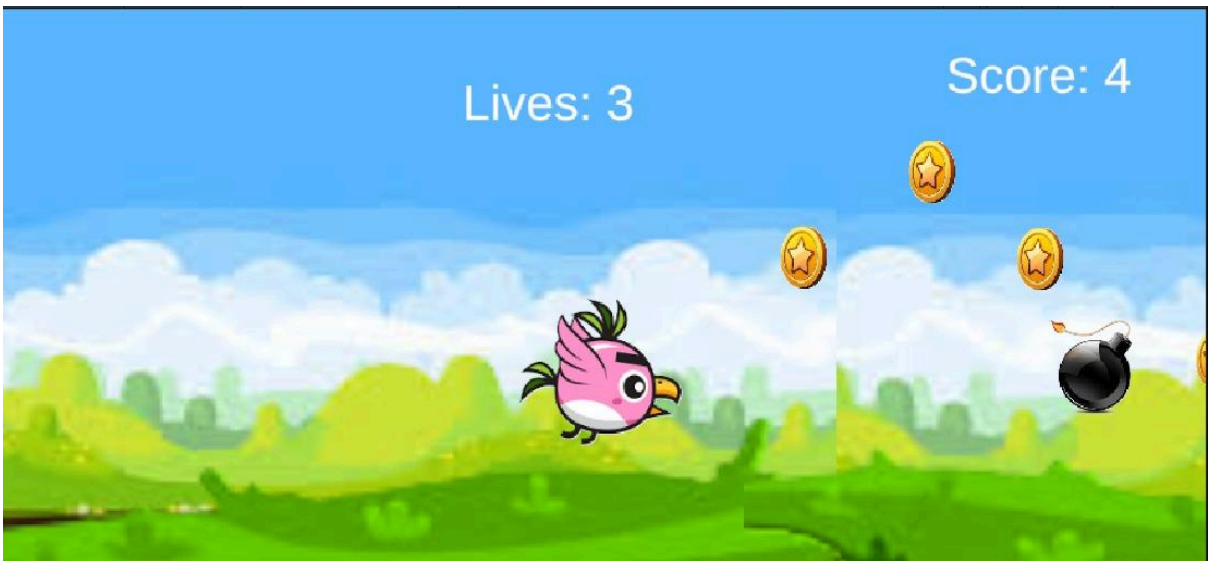
Project Structure

```
Bird-Game
 Assets
 Scripts
 Scenes
 Sprites
 README.md
 gitignore
```

How to Run the Project

1. Open Unity Hub
2. Click on Open Project
3. Select the project folder
4. Open the main scene
5. Click Play to start the game

Screenshots / Demo



Screenshots and gameplay video are included to demonstrate the working of the game, including scoring, life reduction, and obstacle avoidance.

Innovation

The game combines simple mechanics with real-time feedback to create an engaging experience. The use of score and life indicators enhances player interaction and improves gameplay clarity.

Conclusion

This project successfully implements a functional 2D game with clear objectives, smooth gameplay, and proper technical structure. It demonstrates strong concept clarity, a working prototype, clean organization, and meaningful documentation.

Author

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