# **Crash Game - Unity Project**

### Overview

This crash game is built in Unity and allows users to engage in dynamic and thrilling gameplay. This README serves as a guide to help developers modify and extend the functionality of the game. Below, you will find detailed information about the project's structure, scripts, and how to make adjustments.

## **Project Structure**

The project is organized into several key scripts that manage different aspects of the game:

### **Core Scripts**

- ConnectionManager.cs: Handles player connection and network management.
- GameManager.cs: Manages the overall game lifecycle and global game state.
- **GamePlayHandler.cs**: Contains the logic for gameplay, such as managing crash mechanics.
- **GameResetManager.cs**: Resets the game state after each round.
- **GameStartManager.cs**: Handles pre-game setup and initialization.
- **UIManager.cs**: Manages the game's UI elements and interactions.

### **Player Management**

- PlayerInfo.cs: Stores player-specific information.
- PlayerLogin.cs: Manages player authentication and login logic.
- **PlayerState.cs**: Keeps track of the player's current state in the game.

### **Networking and Rooms**

- **RoomManager.cs**: Handles the creation and management of game rooms.
- **RoomNPlayerState.cs**: Synchronizes player state within a room.
- **RoomStateManager.cs**: Manages the state of game rooms.

### **Leaderboards and Betting**

- LeaderBoardHandler.cs: Updates and displays leaderboard data.
- LeaderboardItemDetail.cs: Represents individual leaderboard entries.
- **BettingManager.cs**: Handles player betting functionality.

#### **Utilities**

- **APIStrings.cs**: Defines string constants for API endpoints.
- **AllCustomProperties.cs**: Manages custom properties for various objects.

- **DestroyAfterDelayy.cs**: Handles timed destruction of game objects.
- GetJson.cs: Facilitates JSON parsing for external data.
- LocalSettings.cs: Manages local game settings.
- OrientationHandler.cs: Adjusts game behavior based on device orientation.
- ScaleBuilder.cs: Dynamically scales UI and game objects.
- **ShareOnTwitter.cs**: Enables players to share their progress on Twitter.
- WalletManager.cs: Manages player wallet and in-game currency.

## **How to Modify the Game**

### 1. Game Settings

- Modify game settings in **LocalSettings.cs**.
- Configure API strings in **APIStrings.cs** for backend integration.

### 2. Gameplay Mechanics

- Adjust crash mechanics and round logic in **GamePlayHandler.cs**.
- Customize betting functionality in **BettingManager.cs**.
- Modify room behaviors in **RoomManager.cs** and **RoomStateManager.cs**.

#### 3. UI Customization

- Update UI elements and layout in **UIManager.cs**.
- Use **ScaleBuilder.cs** to adjust UI scaling dynamically.

#### 4. Networking

- Use **ConnectionManager.cs** to integrate with new networking solutions.
- Modify room and player synchronization logic in **RoomNPlayerState.cs**.

#### 5. Player Features

- Add new player features or stats in **PlayerInfo.cs**.
- Enhance login mechanisms in **PlayerLogin.cs**.

#### 6. Leaderboards

- Update leaderboard logic in **LeaderBoardHandler.cs**.
- Modify leaderboard data representation in **LeaderboardItemDetail.cs**.

## **Dependencies**

Ensure the following dependencies are installed for smooth functionality:

- Unity Version: Specify the version used.
- **DOTween**: Used for animations and transitions.
- **Newtonsoft.Json**: For JSON parsing.

## **Tips and Best Practices**

- Maintain consistent naming conventions for new scripts and variables.
- Test changes in a separate branch to avoid disrupting the main codebase.
- Use Unity's built-in profiler to optimize performance.
- Regularly back up your project.

## **Troubleshooting**

#### **Common Issues**

- 1. Game not starting:
  - o Ensure all required components are added to the scene.
  - Check initialization logic in **GameStartManager.cs**.
- 2. Leaderboard not updating:
  - o Verify API integration in **LeaderBoardHandler.cs**.
  - o Ensure proper data synchronization.
- 3. UI scaling issues:
  - o Adjust scaling parameters in **Orientation**Handler.cs\*\*.

## **Contact**

For further assistance or to report issues, please contact the development team.