**Unity Slot Machine Game**

**Game Overview**

This project is a **basic slot machine game** built in **Unity**. The game simulates a classic 3-reel slot machine where players can spin the reels, place bets, and win or lose credits based on the outcome.

Key features:

* **3 Reels with Symbols** – Each reel displays symbols from a predefined list.
* **Win Logic** – Players win when all reels show the same symbol.
* **Credits System** – Tracks player credits and bets per spin.
* **Smooth Reel Animations** – Reels spin smoothly with adjustable spin duration.
* **Sound Effects & Background Music** – Includes reel spin, button click, win/lose sounds, and looping background music.
* **UI Feedback** – Shows messages like “Spinning…”, “Try Again…”, or “Win!” and updates credits in real-time.

**Instructions to Run WebGL Build**

1. **Open WebGL Build**
   * Locate the WebGL build folder generated by Unity.
   * Open index.html in a **modern web browser** (Chrome, Edge, Firefox).
2. **Controls**
   * **Spin Button** – Click to spin the reels.
   * Credits and results are displayed on the screen.
3. **Gameplay**
   * Each spin deducts the **bet amount** from your credits.
   * If all three reels match a symbol, you win credits based on the **symbol multiplier**.

**Bonus Features**

* **Adjustable Reel Spin Duration** – Each reel can have its spin time set individually in the Inspector.
* **Jackpot Symbols** – Some symbols can be flagged as **Jackpot** for higher payouts.
* **Dynamic Sound Feedback** – Button clicks, reel spinning, and win/lose sounds enhance gameplay experience.
* **Polished UI** – Messages clearly indicate game state: spinning, win, lose.

**Thought Process / Approach**

1. **Planning & Structure**
   * Separated responsibilities into **Reel, SlotMachineManager, UIController, AudioManager** scripts.
   * Used **ScriptableObjects** for symbols to store their sprite, name, multiplier, and flags (like Jackpot or Wild).
2. **Reel Logic**
   * Each reel spins for a fixed **spin duration**, then selects a **final symbol**.
   * Staggered reel start times to create a natural slot machine effect.
3. **Win & Credits Management**
   * Checked finalSymbolIndex for all reels to determine wins.
   * Updated credits and displayed messages **only after all reels stop**.
4. **Sound Integration**
   * Used an **AudioManager singleton** to handle background music and sound effects.
   * Ensured sounds play at the right time: spinning, clicking, win, lose.
5. **UI Feedback**
   * Used **TMP (TextMeshPro)** for clear text display.
   * Real-time updates on credits and messages improve user experience.
6. **Flexibility & Testing**
   * Made **spin duration configurable per reel**.
   * finalSymbolIndex can be observed during runtime for debugging.
   * Ensured deterministic behavior for testing while keeping spins visually dynamic.