Game Title: *Cube Climber*

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Game Story and Objective

In *Cube Climber*, you are an adventurer trapped on a giant, rotating cube suspended in the sky. Your mission is to collect **all 32 coins (worth 10 points each)** scattered across **four faces** of the cube—within a **3-minute time limit**. As you navigate the platforms on each face, the cube can be rotated using the keyboard, changing gravity and orientation, offering a challenge in movement and strategy.

The goal is to collect **all 320 points** before the time runs out. When you succeed, you're awarded **1–3 stars** based on how quickly you complete the game.

Controls

- **J** – Move Left

- **L** – Move Right

- **A / D** – Rotate the Cube Left/Right

- **Spacebar** – Jump (when grounded)

- **ESC** – Pause / Resume

- **Mouse** – Interact with buttons and sliders on the pause menu

Core Game Features

Character & Movement

- The `Player` class represents the controllable character.

- Movement (left, right, jump) is enabled using keys.

- Gravity and position handling based on cube face orientation.

Game Mechanism

- The game has a **3-minute limit** (`180000ms`).

- If the timer runs out, the game ends with a "Game Over" screen.

- If all coins are collected, a win screen appears showing earned stars.

Score Tracking

- Coins add 10 points each to the total score.

- Score is displayed in real-time.

- Final score (and win condition) triggers the win screen.

Image Asset

- Used a coin image as a cursor.

Sound Effect

- `coin.wav`: Plays when coins are collected.

- `jump.wav`: Plays when player jumps.

- Both managed by `AudioManager`.

Sound Credits (Open-Source):

- *coin.wav* and *jump.wav* from freesound.org – License: CC0

Multiple Levels

- Game has **multiple faces** acting like levels (each with platforms and coins).

- Progression by rotating cube and exploring all faces.

Game Restart

- Restart button appears on pause, win, and game over screens.

- Game resets player, cube, score, and timer.

Code Comments

- Over 25% of the code is commented, explaining:

  - Game state changes

  - Movement and camera logic

  - Timer, scoring, and condition checks

  - Rendering logic

  - Instructions are placed clearly at the top.

Gameplay & Design

Duration

- The game is completable within **2–5 minutes**, depending on skill.

- Efficient players are rewarded with more stars.

Design & Integration

- All systems work together:

  - Cube rotation affects level layout and movement direction.

  - Procedural music tempo changes based on time remaining.

  - Visual feedback via score, time bar, pause menu, and star rating.