

Goldfish Casino Celebration

Unity Tech Art & Animation Test

Ruba Qewar

Unity Version: 6.5(6000.5.3f1)

Contents

Goldfish Casino Celebration	1
Project Overview	1
Objective	1
Responsive UI	2
Features	4
Audio	5
Project Structure	6
Development Process	7
Technical Notes	7
Performance Considerations	7
Challenges	7
Solutions included:	8
Additional Features	12
Deliverables	14
Lessons Learned	15

Project Overview

Objective

Create a responsive celebration popup for Gold Fish Casino that showcases:

- Responsive UI
- Character animation
- Particle effects
- UI animation

- Sprite sheet animation
- Audio integration

Supported Aspect Ratios:

- 9:16
- 3:4
- 16:9
- 4:3



Responsive UI

Implemented using:

- Canvas Scaler (Scale With Screen Size)
- Anchors
- Aspect Ratio Fitter
- 9-sliced popup frame
- Responsive Close Button positioning

The popup automatically adapts to:

- Portrait
- Landscape

- Tablet
- Mobile
- Animation System

Implemented animations include:

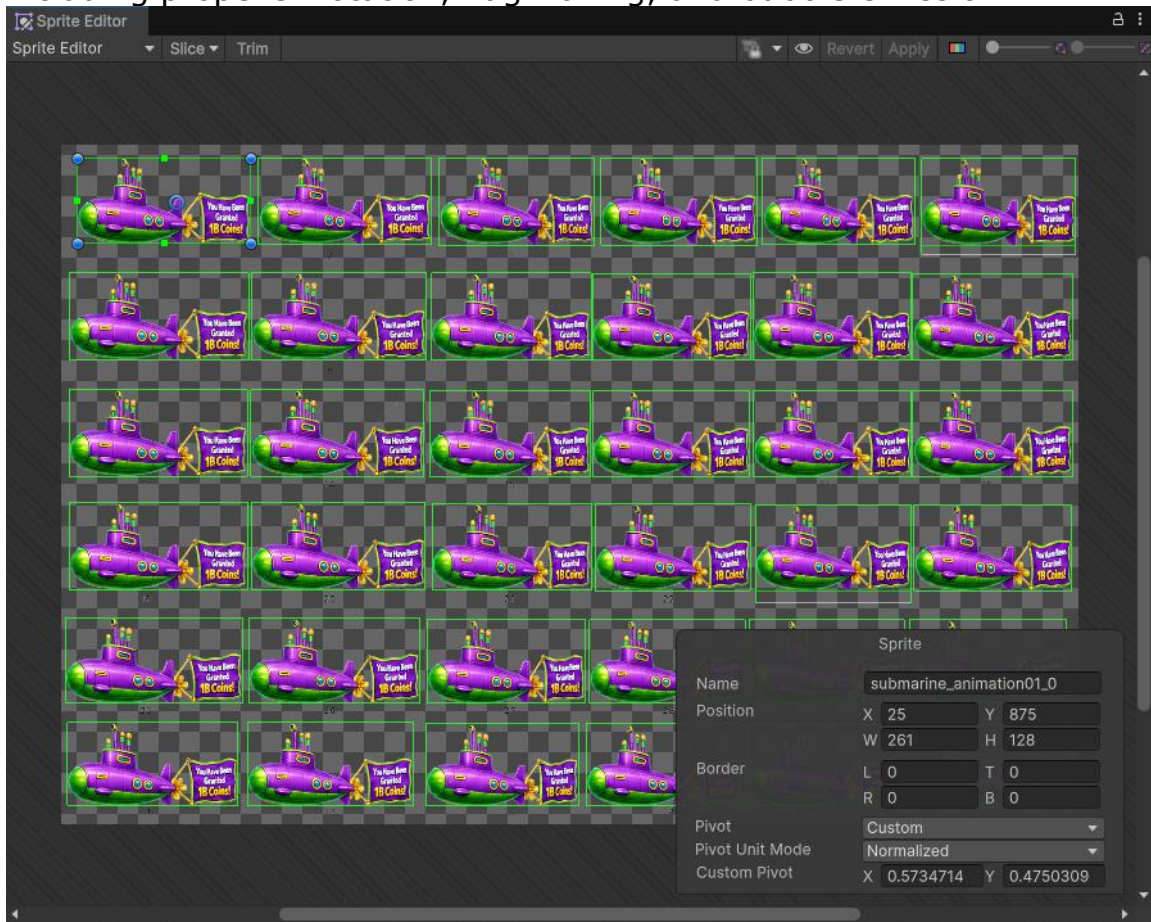
- Popup
- Popup entrance
- Scale bounce
- Fade in
- Fish
- Idle motion
- Eye blink
- Fin movement
- UI
- Title entrance
- Collect button pulse
- VFX
- Coin burst
- Sparkle particles
- Rotating rays
- Sprite Sheet Animation

Created an additional celebration animation featuring:

- Animated submarine



Custom 36-frame sprite sheet used to animate the submarine flyby, including propeller rotation, flag waving, and bubble emission.



Features

- Frame-by-frame sprite animation
- Banner displaying the reward message
- Flyby animation after popup reveal
- Bubble trail
- Synchronized audio

This was added as an extra flourish beyond the base requirements.



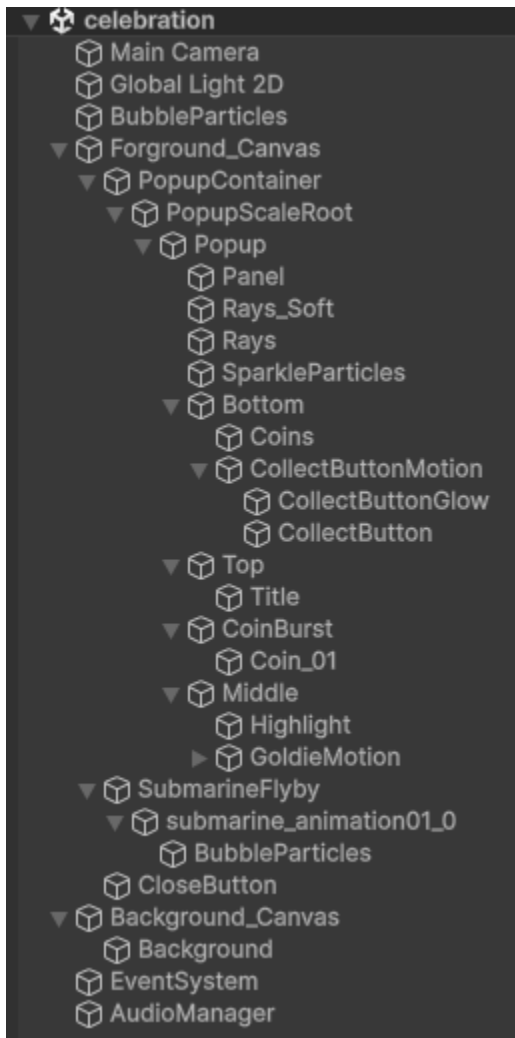
Audio

Integrated:

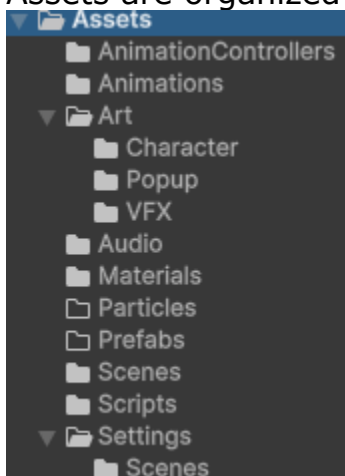
- Background music
- Popup splash
- Coin rolling
- Submarine engine
- Bubble sound effects

Audio playback is synchronized with the animation timeline.

Project Structure



Assets are organized into:



Development Process

Step	Description
1	Imported and organized the assets.
2	Built the popup hierarchy and responsive UI.
3	Animated popup entrance, fish, rays, and particles.
4	Added coin burst and collect button animation.
5	Implemented responsive behavior for all required aspect ratios.
6	Created and integrated a custom submarine sprite-sheet animation.
7	Integrated synchronized sound effects and background music.
8	Final testing, cleanup, and packaging.

Technical Notes

The UI was designed to be reusable and maintainable by:

- Separating layout from animation
- Keeping popup responsiveness independent of animation
- Using sprite sheet animation for custom effects
- Organizing animations into dedicated clips
- Using Unity's built-in animation and particle systems

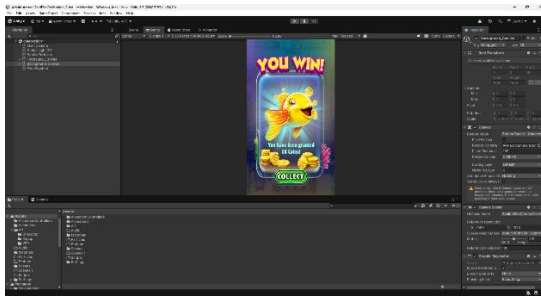
Performance Considerations

- Sprite sheet used to reduce runtime animation complexity
- Particle counts kept low
- UI animations use Canvas Groups where appropriate
- Object hierarchy kept shallow
- Optimized for mobile devices

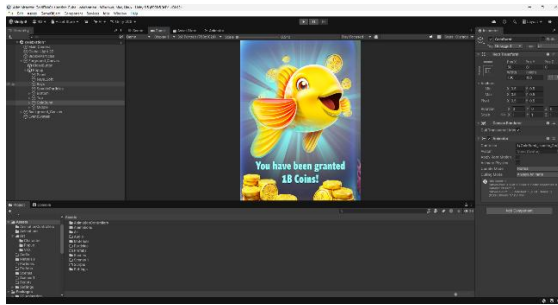
Challenges

During development I encountered:

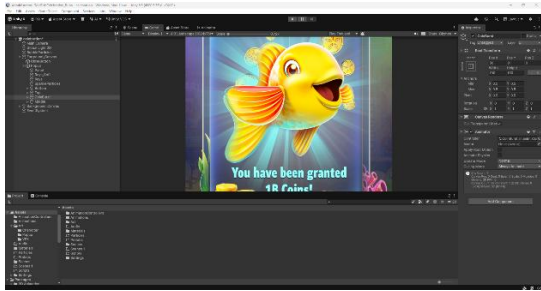
- Responsive layout issues across different aspect ratios.
- Popup clipping in landscape views.
- Maintaining consistent scaling while preserving animation timing.



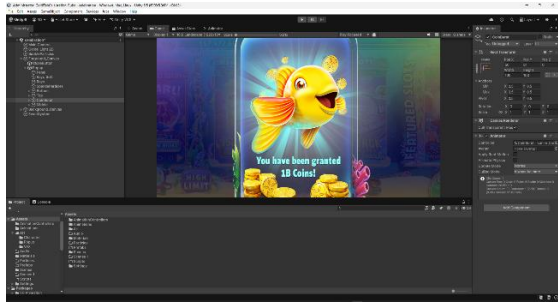
9x16



3x4



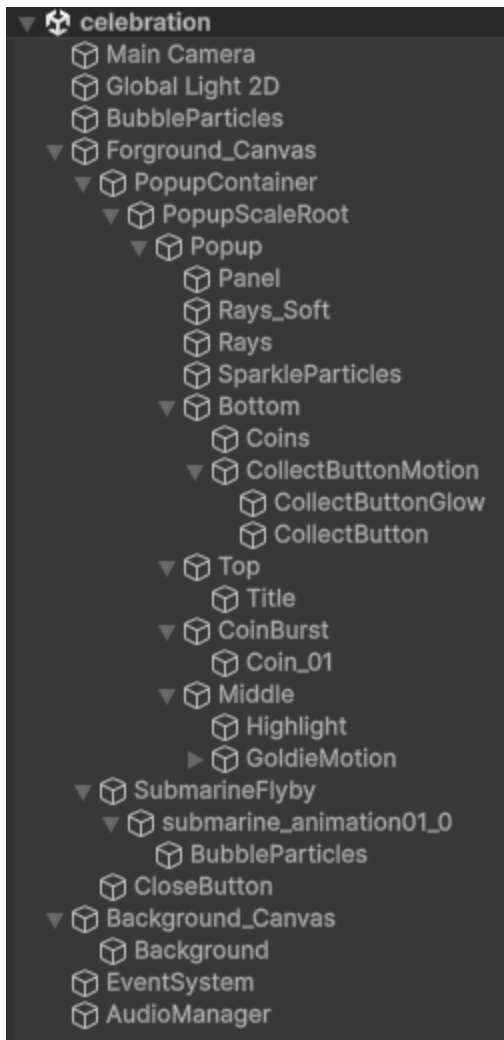
4x3



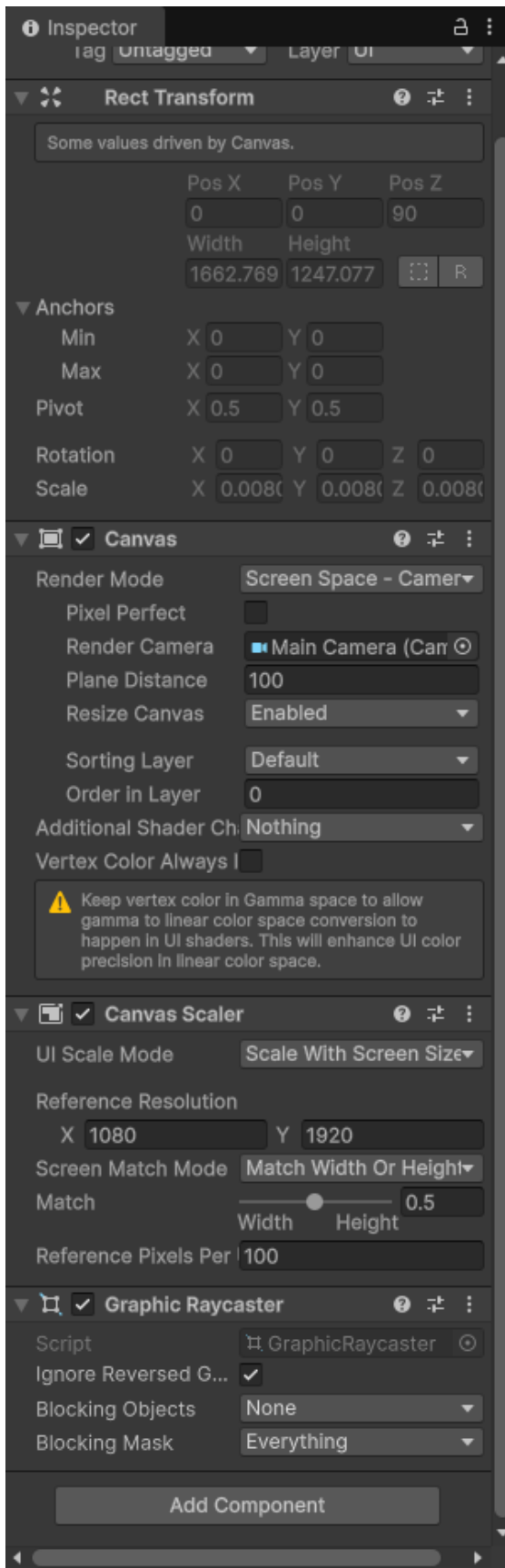
16x9

Solutions included:

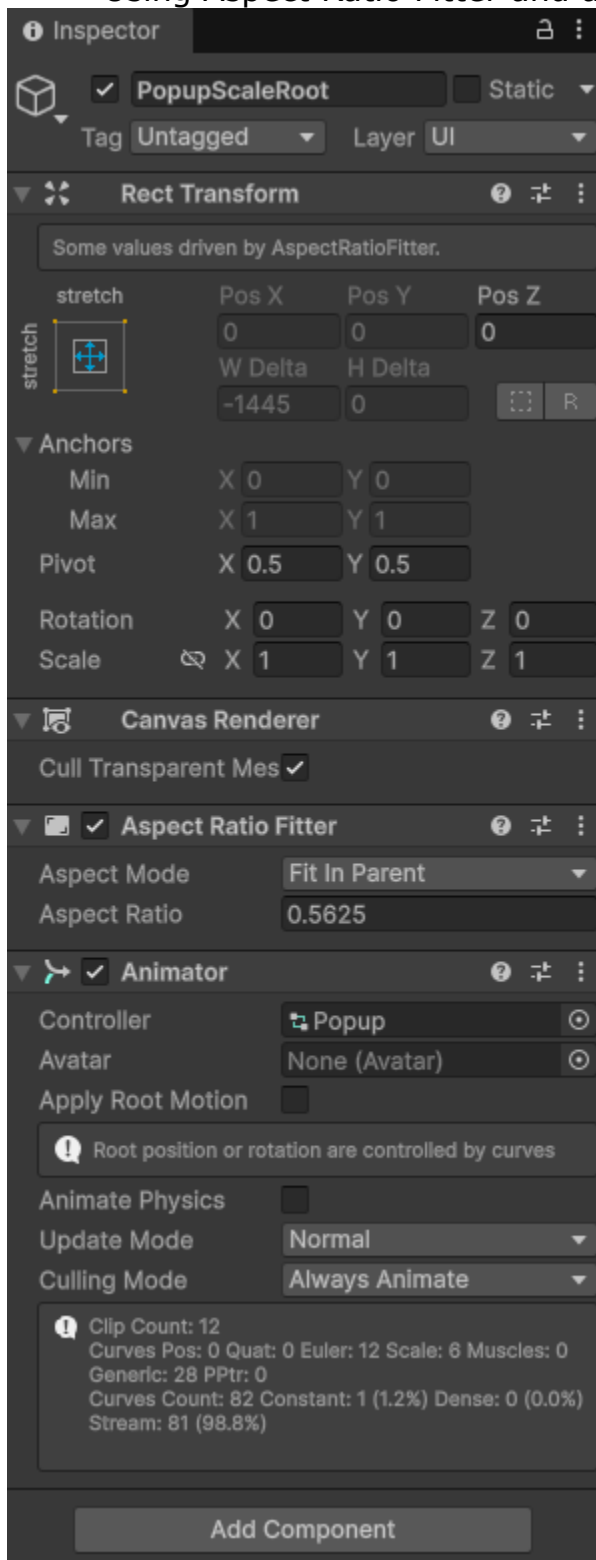
- Revising the UI hierarchy.



- Introducing a responsive layout root.



- Using Aspect Ratio Fitter and anchors to maintain proportions.



- Testing across all required resolutions.

Additional Features

Beyond the requested requirements, I added:

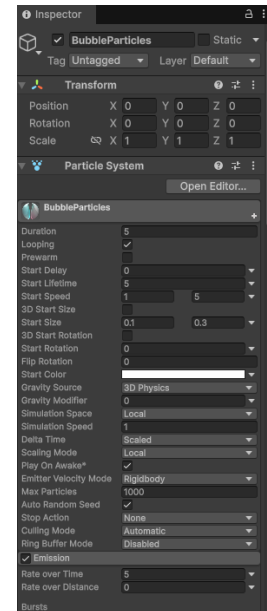
- Animated submarine reward flyby.



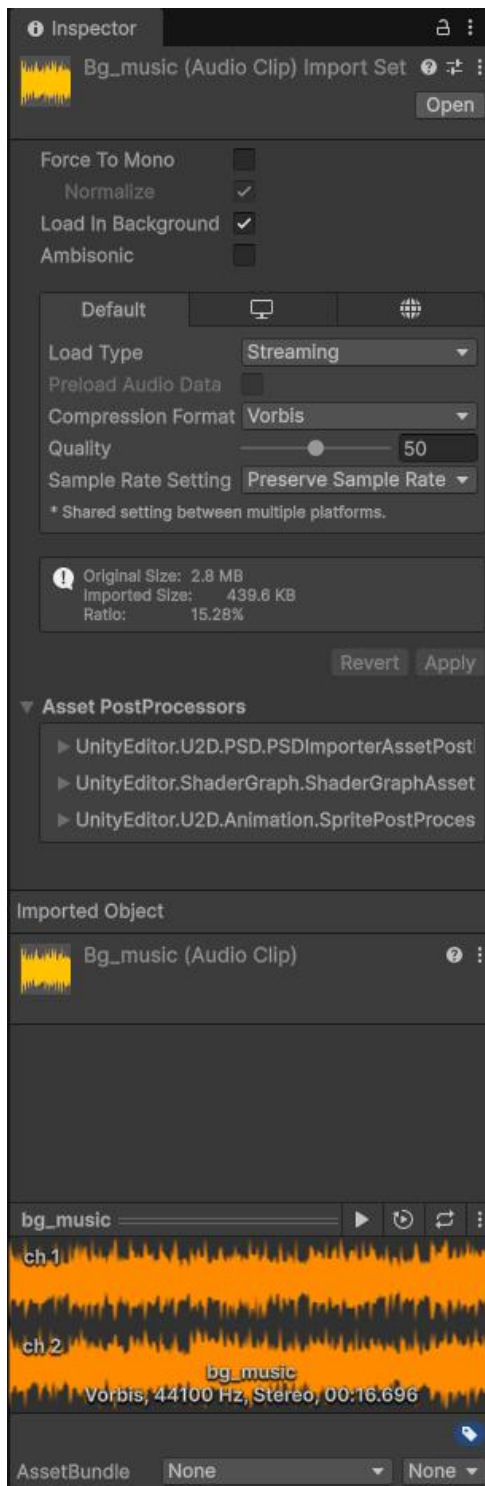
- Additional particle effects.



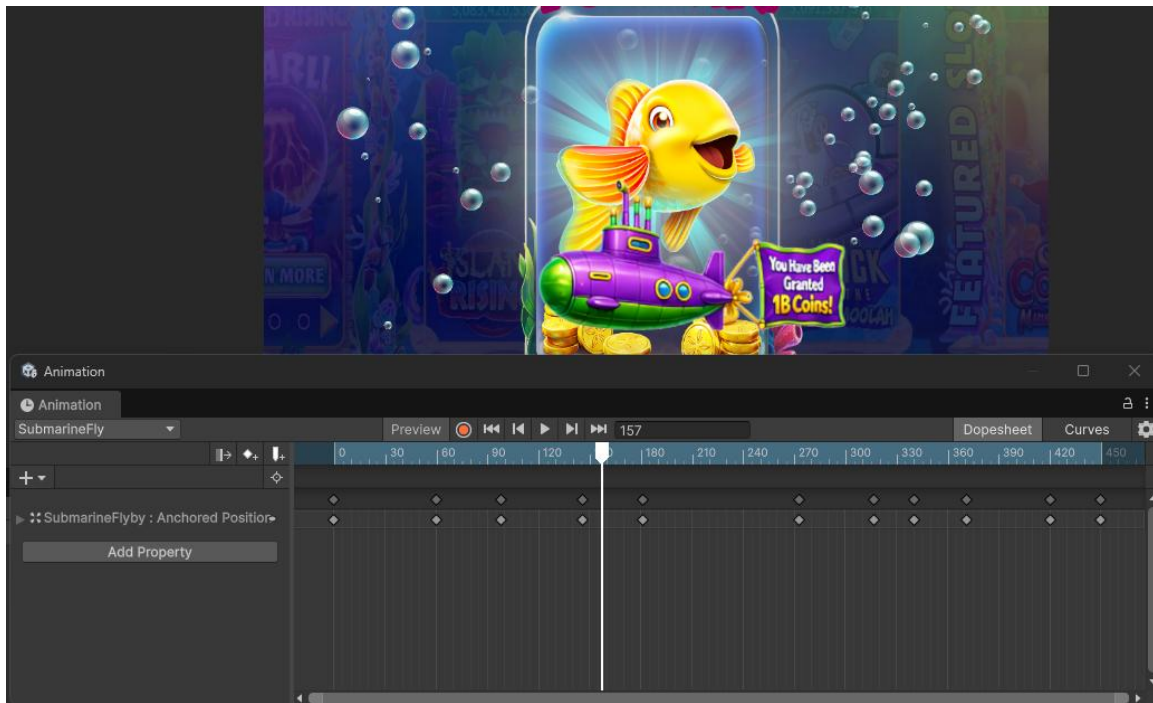
- Sparkles
- Two independently animated light rays behind Goldie.
- Ambient bubble particle system. Smaller bubbles attached to the submarine
- Coin burst animation emitted from the Collect button.



- Ambient audio.



- Improved visual polish.
- Enhanced animation timing.



Deliverables



16x9



4x3



9x16



3x4

Included:

- Unity Scene
- Prefab
- Unity Package
- MP4 Demonstration
- Documentation

Lessons Learned

During this project I explored responsive UI design across multiple aspect ratios, synchronized sprite animation with audio, and reinforced the importance of separating layout from animation to improve maintainability. If given more time, I would add animation events, pooling for particle effects, and further optimize draw calls.