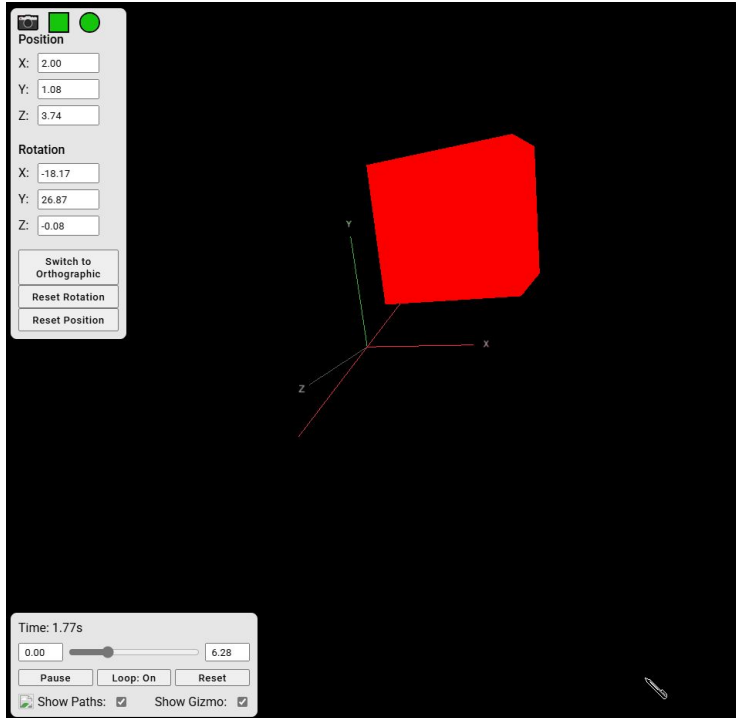


Parametrix

By: Matthew Savitt
Date: 4/7/25



- Parametrix is a browser-based animation software that allows the user to manipulate basic 3D shapes in ways to create quickly automated animations.
- The animation will eventually be able to be exported as an animated GIF natively from the software.
- The software is focused on creating quick and basic perfectly-looping functions for rotoscoping or drafting purposes.

What does Parametrix do?

Project Goals:

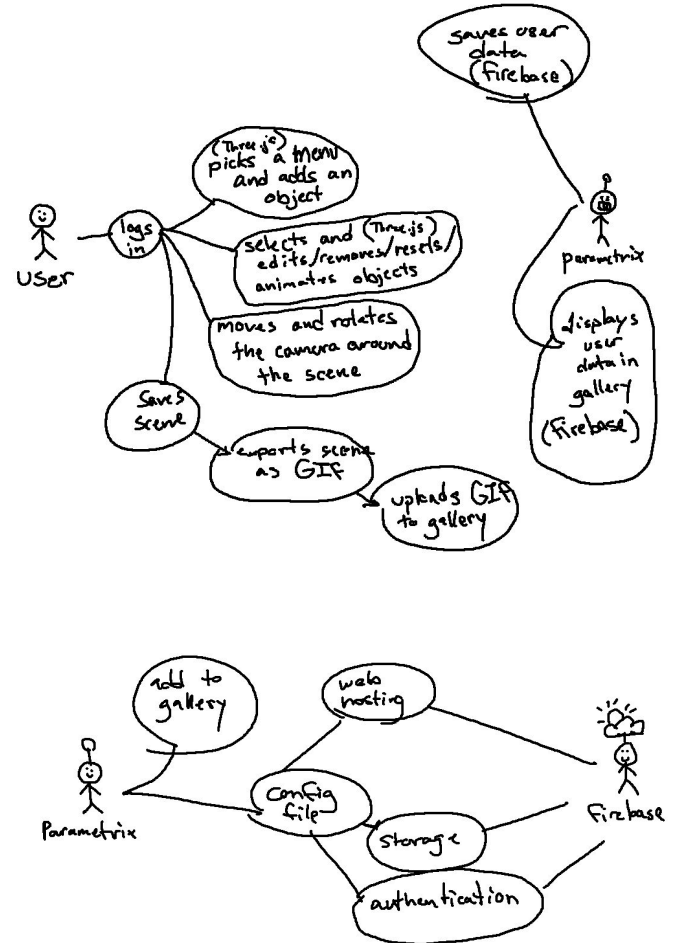
- Have a smoothly-functioning application that can deliver an animation requiring numerous moving object with different transformations applied every frame.
- Have the animated objects respond to scrubbing on the media menu, re-application of new functions to them, and change colors according to color-based functions.
- Create an environment where animators and programmers share overlapping skills geared towards creative development.

Project Justification:

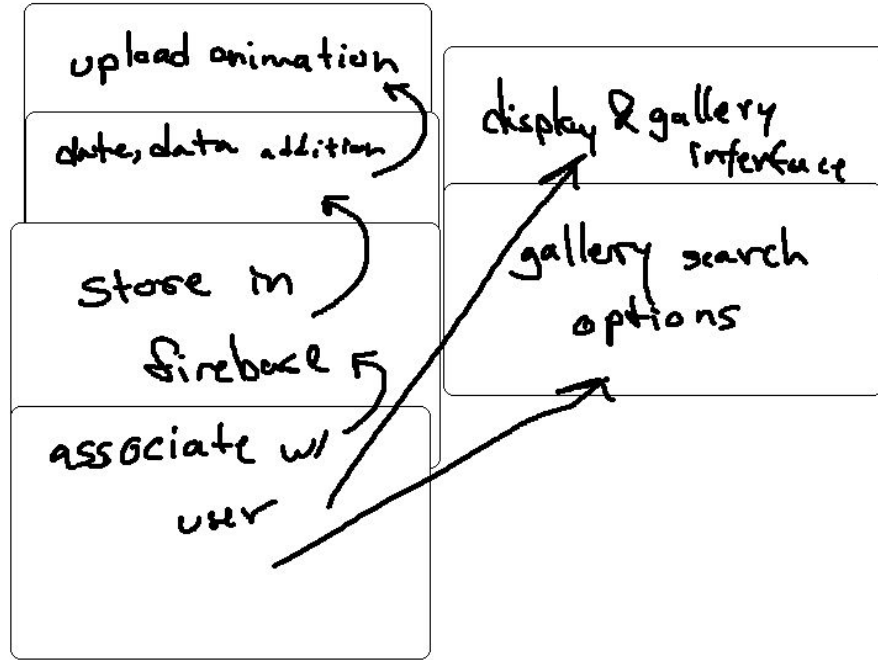
- Parametrix is creatively motivated at its core, meant to be more experimental than merely functional.
- Aligns with my experience working in React for web development and previous experience working with Three.js, with a focus on creativity and animation, fields which I am both experienced in.
- A bit large in scope, but the basic functionalities are within my reach to complete by the end of the semester.

How does it operate?

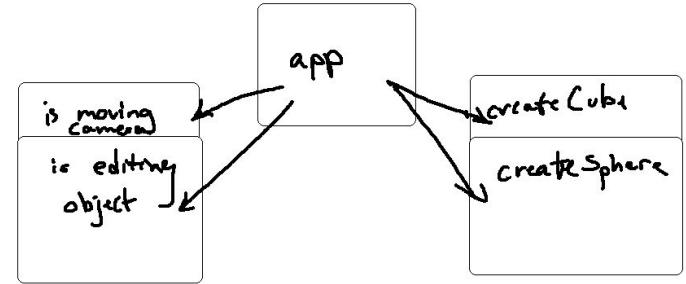
- Provides menus for camera navigation and object creation.
- Ability to assign parameters to a function, which is then applied to a selected object in the scene.
- (possible?) connection with an online gallery for users to upload and check out animations made by others.

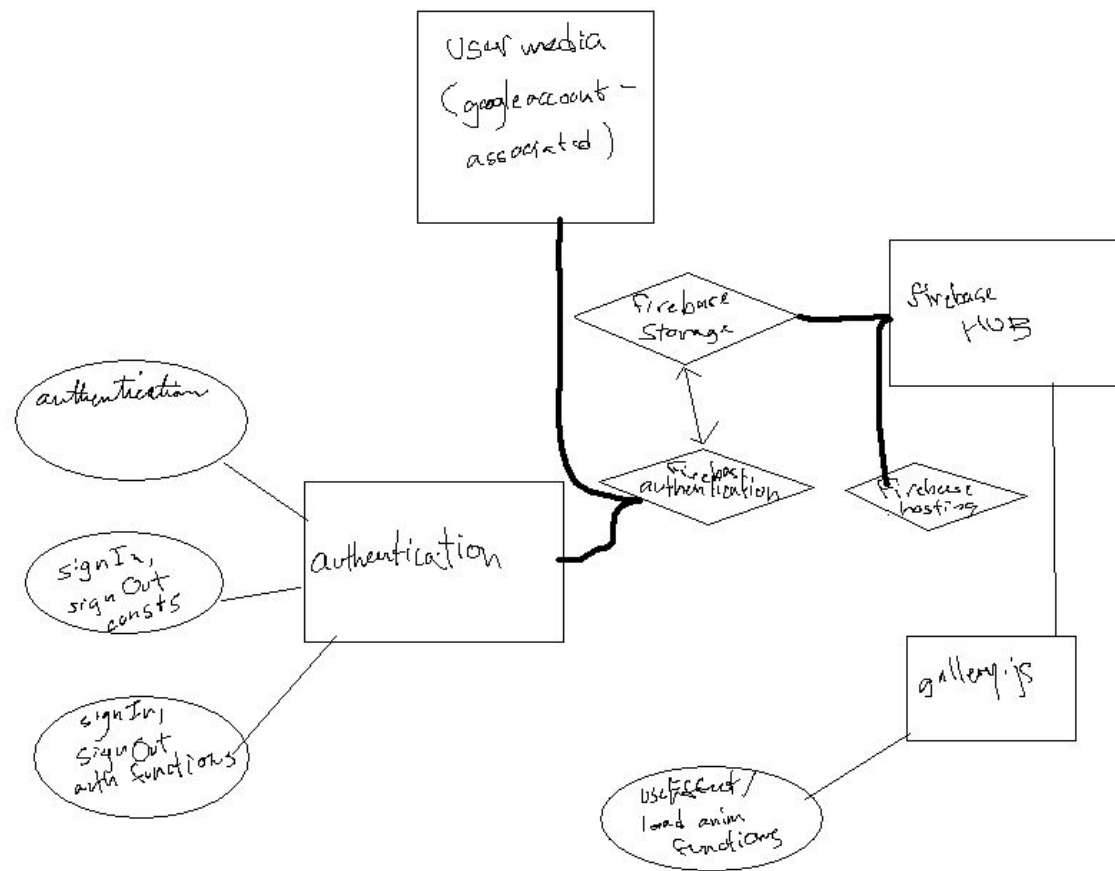


User Media Interaction Flow in Parametric



App State and Actions Diagram

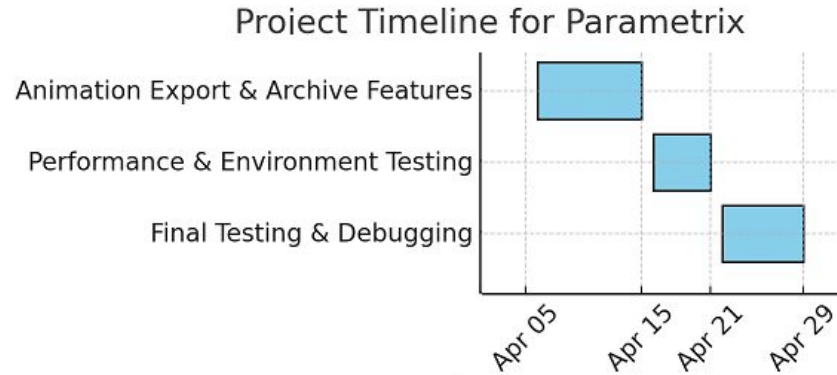




Project challenges:

- Fixing bugs relating to updating state of animations and animation path guidelines; maintainability
- Figuring out how to design some kind of animation to GIF converter, as well as a way to save the state of a scene for later use.
- UI design and UX.

Below is my schedule for work until the end of the semester:



Thank you!