

Team Meeting - Oct 7, 2024

Attendees

- Present: Terry, Jaeyong, Kevin, Danny, Daria, Morris, Sam (ALL)

Discussion Items

- Now that our sub team split has been approved, we will discuss and finalize how each sub team will move forward with implementation.
- Discuss and finalize tech stack, prioritize features, ensure all sub teams are in sync.

Useful Links

- We'll put the notes taken during this meeting in a project components document within our team Google Drive for easy reference in the future
 - Project components document (INTERNAL)
 - <https://docs.google.com/document/d/1hpZiF48jqSPIHRE7TF8ZWP1JlAtZ-ypqcOWoUfKhxVM/edit?usp=sharing>

Design Decisions Made

Design decisions are always subject to change if necessary, but for now, this is how we will be moving forward

Component	Description	References
Database	The database must support storage for JSON datasets The database should storage user information for login and authentication Nice to Have: <ul style="list-style-type: none">- DBMS that offers filtering, indexing and aggregation	Firebase
API	Either utilize a Next.js SSR to encapsulate server and client in one service or design APIs to: <ol style="list-style-type: none">1. Store Uploaded Data2. Authenticate Users	Next.js
Server	Using Node.js, perform business logic operations <ol style="list-style-type: none">1. CRUD Operations2. Session Management	Next.js Node.js User Authentication Implementation Example

Component	Description	References
	3. Read + Write against DB 5. User Auth 6. Data Processing and Transformation (Prep Data to for Client and DB)	
UI	3D Graphics Engine <ol style="list-style-type: none"> Three.js for graphics Pages <ol style="list-style-type: none"> Login Homepage Graph 	Graphing Options (Comprehensive List): Three.js OpenGL Ogma
Hosting Platform	Concurrently serve application to multiple users <ol style="list-style-type: none"> DNS Virtual Machines Cloud Architecture 	AWS Vercel GCP
CI/CD Pipelines	Automated Pull Requests Functional Testing - Does each feature function as expected Integration Tests - Will application build properly	Github Actions
Secrets Manager	Store secrets for 3rd party services	Vercel Env. Variables