ClassAI

Ryan Lam & Jax Wang

Table of Contents

- Problem
- Solution
- What we're competing for
- Demo
- Technical Details + Tech Stack
    - Database Design
    - Video transcribing process/pipeline
    - Dark Mode

Problem

-   Online lectures can be tiring and not straight to the point. Also tons of technical issues during the online lecture

-   Hard to pinpoint important sections in the lecture (especially when you have 2h lectures for 5 courses)

-   Hard to find and refer to important sections in the lecture when studying

Solution

- Classroom platform for teachers to post recorded lectures, have course discussions with students, and help students

- Uploaded lectures are processed by ClassAI and AI pinpoints the most important sections of the lecture. Also summarizes the important sections and saves time

- We also have course discussions, amazing UI/UX, and dark mode for studying before the exam at 2AM
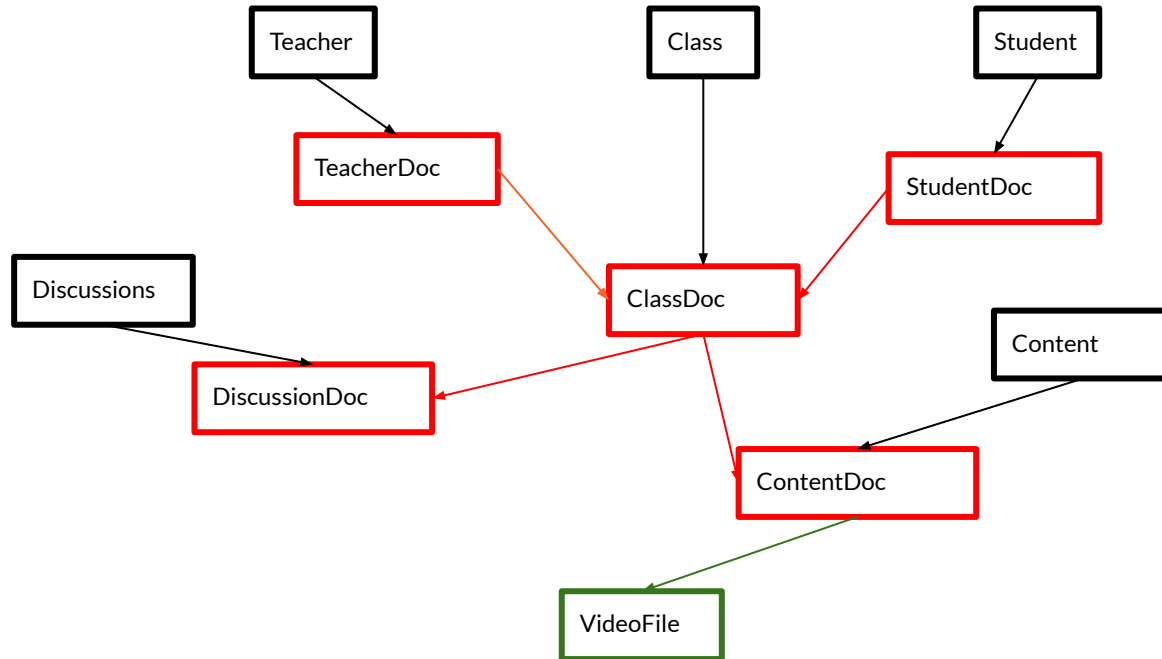
What We're Competing For

- **Social Impact**: Education, helps teacher/students navigate online learning
- **AI/ML**: Using AI/ML
- **Best Design**: We have awesome UI/UX
- **Best Pitch**: Best pitch…?
- **Judges' Favorite**: Who knows…?
- **Assembly AI challenge**
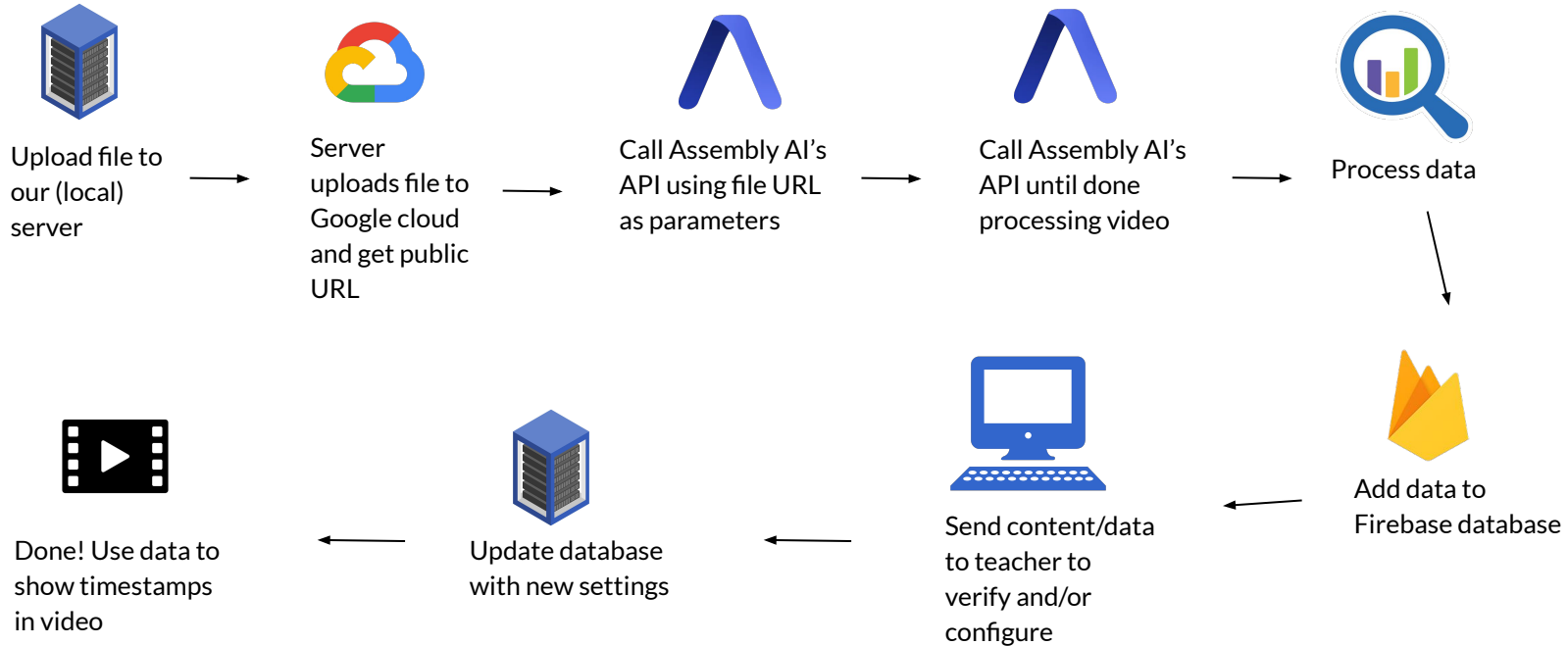- **MLH - Best Use of Google Cloud**

Technical Details

- Frontend:
  VueJS/Vuex, Tailwind CSS

- Backend:
  NodeJS, ExpressJS

- Database:
  Google Firebase Firestore & Cloud Storage

- Other:
  Assembly AI's API, JS/HTML/CSS/SCSS

Database Design (NoSQL)

- Firestore for NoSQL database
- Firebase Storage for file storage (ie. S3 buckets)

- Black = Collections
- Red = Document
- Green = Firebase Storage

Uploading + Transcribing Video (with Assembly AI)

Upload file to our (local) server

Server uploads file to Google cloud and get public URL

Call Assembly AI's API using file URL as parameters

Call Assembly AI's API until done processing video

Process data

Add data to Firebase database

Send content/data to teacher to verify and/or configure

Update database with new settings

Done! Use data to show timestamps in video

This took 10h+ 😭

Dark Mode

Global Variables + Global State using Vuex (State Management)

Lifecycle Hooks

Component/View 1

Component/View 2

Component/View 3

Mutation to Change State