Andrew’s Message about Project Details: <https://youtu.be/Tae4osFwWXQ>

**Business Scenario**

You've been hired as an AI Engineer for a Japanese Language Learning School to extend the language offering and also augment the learning experience for students between instructor-led classes.

The school has an existing learning portal and learning record store.

You've been tasked to:

* build a collection of learning apps using various different use-cases of AI
* Maintain the learning experience the learning portal using AI developer tools
* Extend the platform to support various different languages

**Learning Apps**

**Considerations**: This is a wish list of potential projects around the business use-case and we may not build all these ideas.

**Daily Life Visual Novel Generator**

Build a learning app that takes in a town, and allows the player to visit key locations and have daily routine conversations with variation.

* Must generate out consistent characters
* Must maintain the chat history of multiple characters

**Japanese Text Adventure**

Build a text-adventure learning app that slowly introduces Japanese vocabulary, and have all primary actions needed to perform writing Japanese.

**Japanese Sentence Constructor**

Build a learning app that has the user input an English phrase, and the app will assist them with translating to Japanese without directly providing them the answer.

**Sign to Speak [Rob]**

Build a learning app that allows users to practice ASL finger-spelling via a webcam

The app will present single letter vocabulary and the student will attempt to sign the letter

**Subtittles to Vocabulary [???/Derek]**

Build a learning utility that will take a movie subtitle file and extract all the vocabulary.

* You must use LLM to extract the vocabulary
* You need to use offline batch jobs to provide the lowest cost
* You must must prepare the data in json structured output
* You must evaluate the outputted vocabulary to be correct

**Speech to Learn**

Build a learning app that allows users to practice speech in a target language.

The app will present single word vocabulary and the student will attempt to say the word.

* Evaluate possible Automatic Speech Recognition (ASR) solutions
* Inference of speech-to-text for MVP must be under 1s
* Determine the the lowest cost to run ASR at scale with 10,000 concurrent users

**Japanese Teaching Assistant**

* Requirement [Show us how RAG works]
* Extract body of text and be able to ask questions
* https://www.youtube.com/watch?v=OlZx\_o60qAs&list=PLUqu4MKiV5q83qPR7zI7w7ucLWerAT0R5