**Appearance, Intonation, Clarity, Concision, Flow, Pacing, Media Integration x/23**

**\*Brief address of the solo-presentation nature**

Hello, I’m Matthew, and this is my solo presentation of my group’s project Cue-Cetera. I want to quickly clarify that I will refer to things done by my group prior to my joining as being from my group, any of my personal contributions as being from me, and any decisions made after my joining as being from “us.” With that said I’ll now begin.

**Problem – An explanation of what problem exists that creates the need for the project x/6**

The problem my group set out to face is this: <read>. Some questions they asked themselves were <read>.

**Project Overview - A description of the project, its goals, and how it solves the problem. x/6**

To address this problem, my groupmates came up with the idea of Cue-Cetera. Cue-Cetera is a mobile application that intends to give individuals who struggle to read social cues a means of learning. This is done by using Machine-Learning technology to detect and classify the emotions an individual displays within a video. In addition to helping to teach, Cue-Cetera also hopes to bring awareness to these communities that are otherwise unknown to many.

**Project State (Completed, In-Progress, Planned) x/18**

The current state of our project is as follows:

Our completed features allow the user to upload or record a video using our app. The video is then sliced into 10 frames per second, and classified by our Machine Learning prototype. Those classifications are then sent to our database, hosted on firebase. The user can then playback a preloaded video which includes navigational timestamps and classifications. It should be noted that as of our current project, that video is not the same one they selected earlier, and the emotional timestamps available were not classified by our machine learning prototype. The current timestamps are arbitrary, but functional.

In progress, we are working on optimizing our Machine learning model, which is currently still in its beginning stages. As of right now, it classifies a frame as one of 28 emotions. For our application, we intend to group these emotions into either positive, negative, or neutral. We are working on giving our user access to the original video they uploaded or recorded. And we are working on pulling the classifications from firebase, allowing us to build our navigational timestamps based on those results.

Planned for the future, we will first make sure that we finish all page functionality and linking in the front-end. We would like to perform user testing as a measure of our app’s navigational and functional usability. We would also like to use some sort of facial detection within our frames to significantly improve the results of our machine learning model. And overall, we plan to perform extensive testing on our application once all features are incorporated.

**Demo (Major Features, Smooth Recording, Branch, Narration) x/24**

Now I’ll do a demonstration of our application and give a rundown on my personal contributions throughout this summer. Wing it.

**Timeline x/8**

For our timeline, we plan to have all of our pages properly linked and functioning in our front-end, as well as a further optimized and tested machine learning model, for our Alpha build. We also plan to improve the UI’s accessibility by this time. For our beta build, we hope to further iterate on our machine learning model using extensive user testing. The remainder of our work will go towards bug testing and finalizing our machine learning model for the release candidate, in addition to putting our finishing touches on our UI. By Week 13, we should have our production release.

**Plan of Action x/8**

For our plan of action:

Our front-end improvements, including page functionality and linkage, increased user accessibility, and increased visual appeal in our UI, will be done by our front-end members using the incredibly useful tools provided to us by Flutter.

Our machine learning improvements, including increased training, racially diverse datasets, and facial recognition, will be done by finding that data and feeding it to our machine, as well as by implementing a facial recognition algorithm somewhere in our back-end.

For Testing and Debugging, to ensure proper data processing and security, we will have to find volunteers to test our application and validate that the machine learning model’s classifications are accurate. We will also have to research Google Firebase’s security protocols to ensure the security of our users, who are potentially uploading data with the assumption of privacy.

**Overall Subjective Impression x/7**