DigiProf Design Document
For Version 1

Group 13

Guidelines

a. The development will be done using Android Studio Version 4.1
b. The deployable application will have a minimum Software Development Kit (SDK) of Marshmallow 6.0 which corresponds to the Application Programming Interface (API) level of 23
c. Firebase, for system and program.
d. Chewie, media player plug-in
e. Ethics:
    i. The user's data and video and personal information must always be kept private. We must consider how we can always keep that information private and keep that information secure.
    ii. Because we are using a third-party database, we may need to inform the user of which company is storing our data, and how it is being stored.
    iii. The user agrees to give rights once they have posted a video on our application. And we have all the copyright to the videos.

System Diagrams

Use case UML - This is a diagram to demonstrate how users will interact with the app and outline the features of the app, such as logging in, saving/sending videos

Final Version Plan:

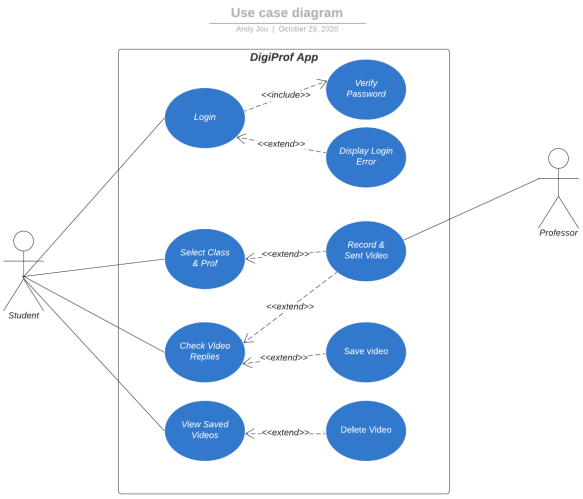

Figure 1 Use Case UML

Current Version:

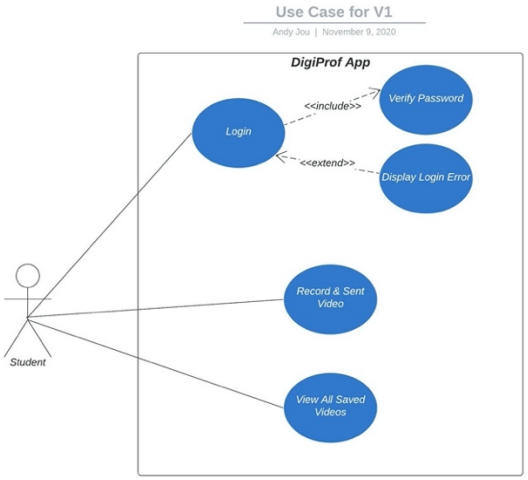

Figure 2 Use Case UML

Class UML - This is a class UML graph that will roughly dictate how different parts of the code would interact with each other. The diagram is created with an object-oriented programming design.

Final Version Plan:

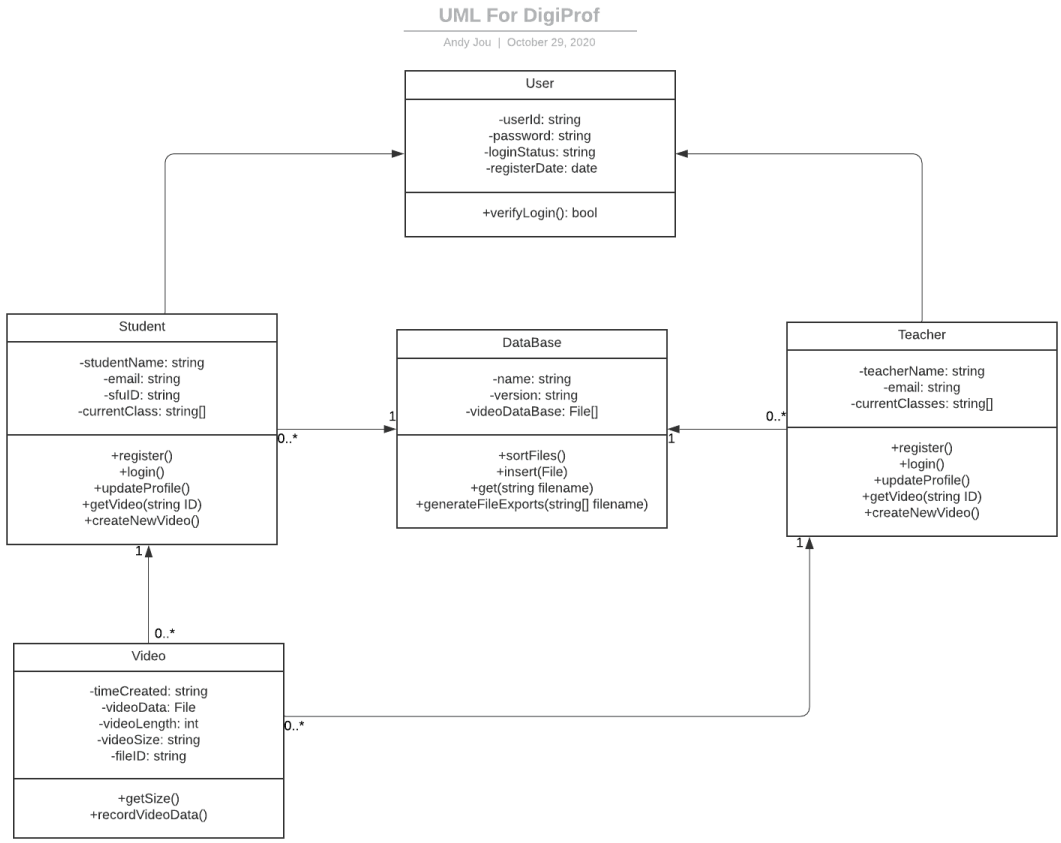

Figure 3 Class UML

Current Version:

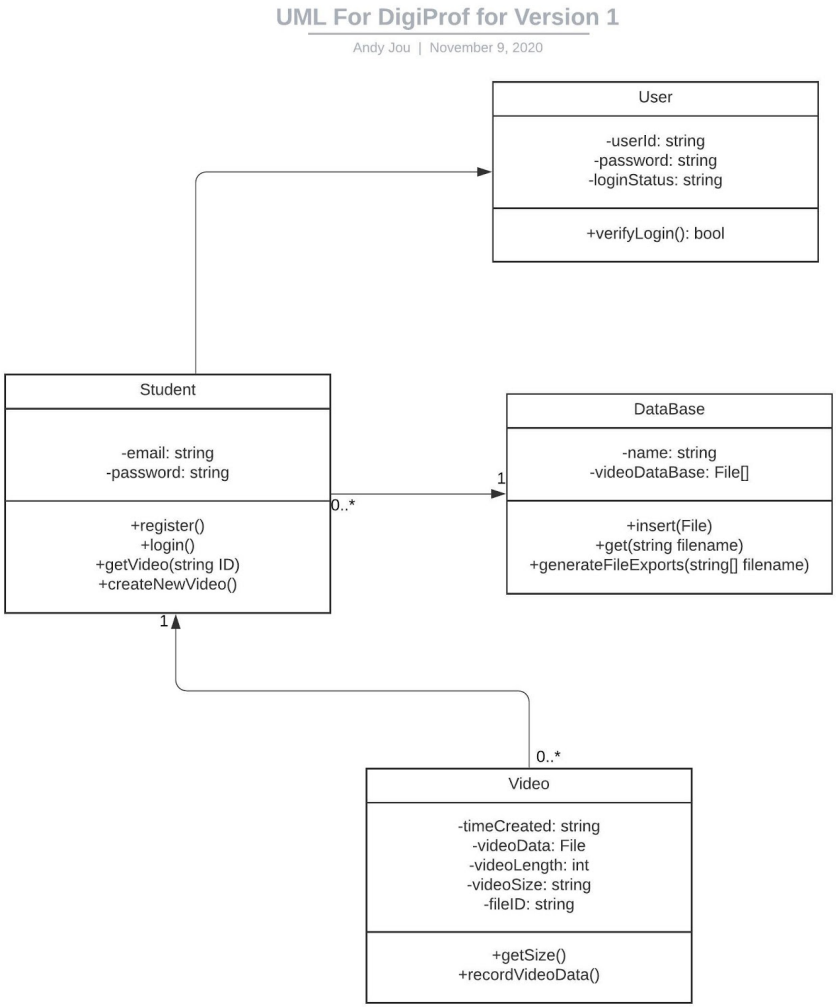

Figure 4 Class UML

Data Requirements

a. **Firebase**: The serverless real-time database, for storing and syncing video metadata between clients. The codebase should be Java-based.

b. **System language**: We will automatically detect between two different default system language, English and French. And the inputs of the keyboard should work for both languages for user sign-ups and logins.

c. **Chewie:** This is the visual output, where it translates the mp4 files into videos for students and teachers. (Yet to be implemented in Version 1)

d. **Touch input**: This is how users will interact with the application. They will use this input to navigate and access features.

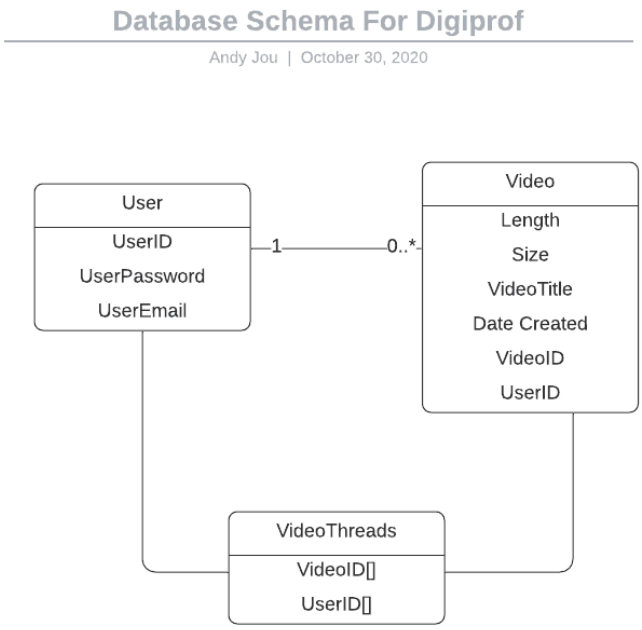

Figure 5 Database Schema

Feature Priority

Version 1:

- Creating different users and login
- User verification via email.
- Recording a video and access that video locally.
- Able to select a local video and delete.
- Selecting an existing video to upload to database.
- Able upload to the database
- View the uploaded videos in the database with another device via website.
- UI & UX preliminary design, with inputs from teammates.

Version 2:

- Sent a video to a specific recipient.
- Create grouping for students and professors
- Create groups for different classes.
- Search ID for students and professors.
- Professors can delete videos from online database.
- View local video within the app.
- Have a collection of videos within the app.

Version 3:

- Able to sort video by date, length, views.
- Keeping track of the video replies with IDs, like a thread. Saving threads of video.
- Able to share threads via an link or ID.
- Saving threads of video to the local storage within the app.
- Access and edit threads and location of individual video.
- Create customize video thread for specific user.

Figures

Figure 1: https://app.lucidchart.com/invitations/accept/fe5f0d7a-3eba-49ee-8566-5369719e3059
Figure 2: https://lucid.app/invitations/accept/128245d2-d5ad-4888-bb5d-278d59ea1dc4
Figure 3: https://app.lucidchart.com/invitations/accept/c0b692e3-2f6a-4856-87e6-edd2d33c3ad2
Figure 4: https://lucid.app/invitations/accept/77c931dc-0cc7-4ca0-b7ae-5085636371f5
Figure 5: https://app.lucidchart.com/invitations/accept/5193ac7f-0b61-4af7-880b-b3494c1b803a