

## **Project Summary Report**

# ***VidEdu***

### **Group Members**

Gerardo Gonsalez

Eric Gonzalez

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## **Executive Summary**

### **What is VidEdu?**

Videdu is a web application built on the Ruby on Rails framework that enables users to take notes on Youtube videos with the ease of pausing videos on a keydown event when taking a note on a video, then resuming the video upon selecting the return key on the keyboard. Users shall also be able to rate videos, write descriptions of videos, summaries, essentially a Yelp for educational Youtube videos. Users shall be able to save their notes alongside their videos and add it to a category of their making. Users shall also be able to download their notes onto their local drive for later use.

### **Development Methodology**

“VidEdu” was created using the Agile Software Development Methodology comprising a total of 4 group members in the development process. Our weekly routine involved a series of scrum meetings, small, incremental releases of new features, debugging and frequent testing, and constant collaboration and communication between team members throughout the development process. Our scrum, each week, consisted of meeting via online to go over what we have done and what has yet to be accomplished for our future milestone. We kept a log of what features were to be implemented that were of level one priorities and pushed back the features that were considered level two and three.

### **Initial Specifications and Changes**

The project initially consisted of a few yet important features. Along the process, more features began to be added on. Our first and foremost feature was the foundation of the application which was one of the three main features, that is, a working deployable system. Second, a sign in and sign out system. And lastly, being able to successfully interact with the Youtube API gem.

## Specifications

Our specification evolved from a quite imaginative list at the start of the semester as you will see on our Initial Specifications below to the specifications that you can see on our Final Specifications below. We were excited when we were creating our specifications back then that we weren't able to think that much on the complications that we might encounter. We just thought everything could be possible, since we've given priorities on the features that we wanted to implement anyway. Priority one being what is absolutely necessary for our application to be useful, two as what we would like our application to have but not strictly necessary, and lastly, three, which are things that are nice to have in our application if we still have time but are not needed at all. Along the way of finishing our program and reaching the given deadline, we did encounter a few problems that caused us to revise a few of our priorities a little bit while still trying to meet the requirements for our application. Fortunately, we were able to finish our priority ones, some of our priority twos, and just decided to put aside priority three in the future.

### Initial Specifications

#### A. Launch

- a. User shall see our home page
- b. User shall see and click on the upper right the Log-in / Sign-up link.
- c. User shall be directed to the Sign-up page by clicking the the Sign-up link.
- d. User shall be see a Log-in pop up window.
- e. User shall be able see a textbox that the user can put a video link
- f. User shall be able to press the button next the textbox
- g. User shall able able to click on the 'Who we are' link and direct them on that page
- h. User shall be able to click the "Integration" link and direct them on that page
- i. After signing in, user shall be able to see on the upper left a "My Notes" navigation.
- j. User shall be able to toggle on the "My Notes" navigation to see and unsee drop down list.
- k. After signing in, user shall be able to see on the upper right page a "Menu" dropdown navigation instead of the rather "Log-in/Sign up" link when the user wasn't signed in yet.
- l. User shall be able to toggle on the "Menu" navigation to see and unsee the dropdown list.
- m. User shall see on the footer of the page links such as Terms, Privacy, and "FAQ" that will direct them to the pages based on its label.

#### B. Who we are Page

- a. User shall be able to see information about the creator of the application
- b. User shall be able to see links on how to contact these creators

- c. User shall be able to see a 'VidEdu' link on the upper left part of the page to go back to the home page

#### **C. Integration**

- a. User shall be able to see the integration of our application.
- b. User shall be able to see a 'VidEdu' link on the upper left part of the page to go back to the home page.

#### **D. Notes Dropdown**

- a. User shall be able to see the list of subjects the user have.
- b. User shall be able to see and toggle the buttons '+' and '-' to see and unsee the list of videos on each subjects
- c. User shall be able to click on this videos that will lead them to the note taking page.
- d. User shall be able to click on the Subject that will lead them to the subject page

#### **E. Menu Dropdown**

- a. User shall be able see and click on the 'Profile' link from the list that will lead them to the "Profile" page.
- b. User shall be able to see and click on the 'Explore' link from the list that will lead them to the "Explore" page.

#### **F. Log-in Pop-up**

- a. User shall be able to enter his/her username or email and password
- b. User shall be able to see a link to the sign-up page in case the user realized they don't have an account yet
- c. User shall have an option on how he can log in, from the user's Google account, Facebook account, or Twitter account.

#### **G.**

1. User shall be able to interact with any video from Youtube
2. User shall have videos categorized under their own subjects
3. User shall upload to Evernote/Google Drive/local machine

#### **Final Specifications**

1. User shall sign in and sign out web application
2. User shall have their own data (notes, reviews, summaries, description, rating)
3. User shall be able to interact with any video from Youtube
4. User shall have videos categorized under their own subjects
5. User shall see featured videos
6. User shall sort through featured videos
7. User shall search for video

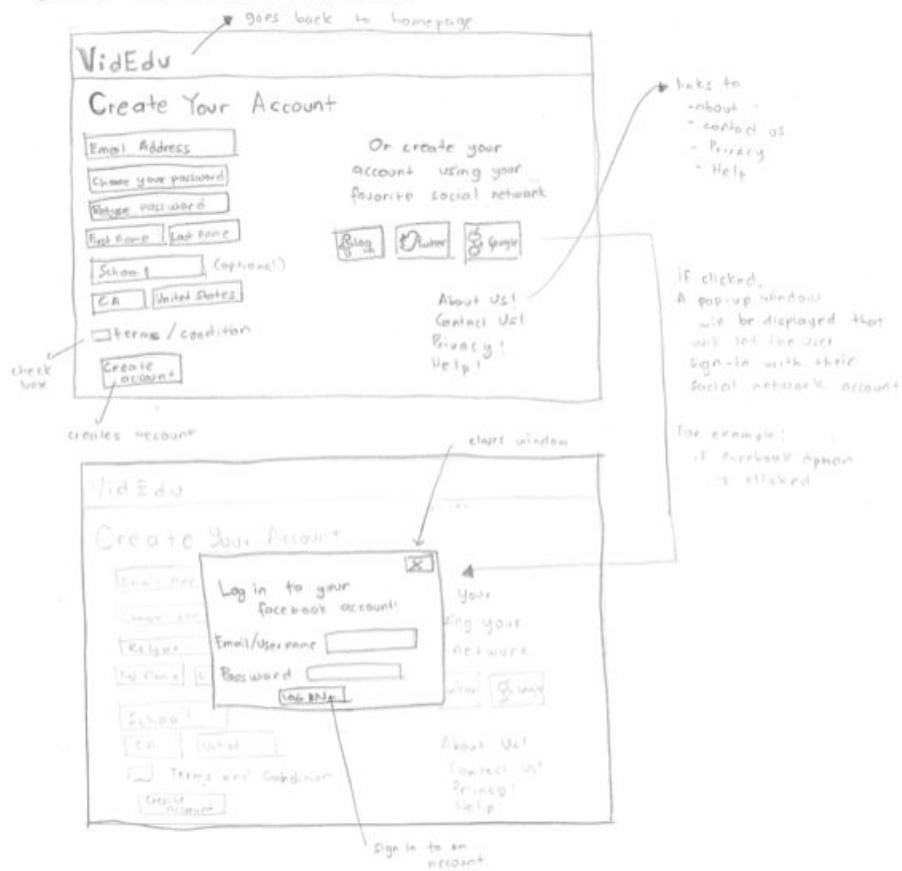
### **Sketches and Screenshots**

The following few pages includes various screenshots of VidEdu. Milestone 1 screenshots are the diagrams used to create our initial state of the application, in other words, the wireframes on of the goal end product. The Final screenshots are the screenshots from our actual application.

#### **Milestone 1 Screenshots**

##### **Create an Account**

## CREATE AN ACCOUNT WIREFRAMES

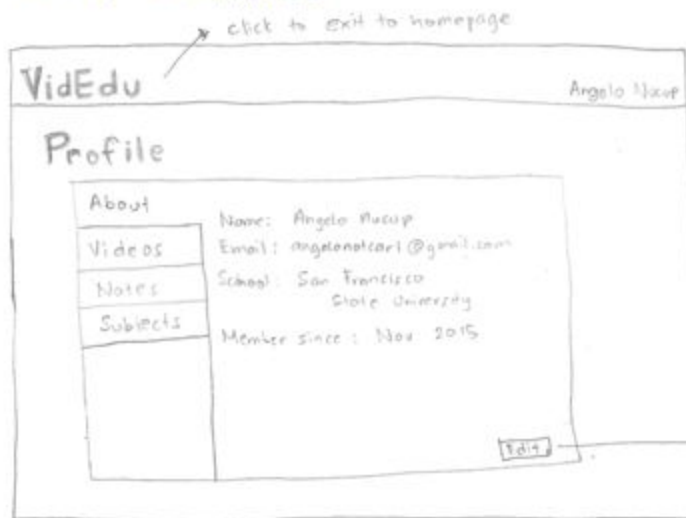


### Note:

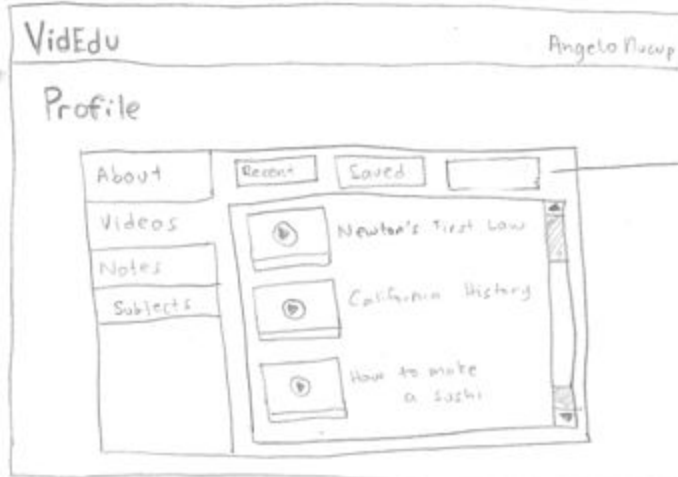
- \* The school is optional as some users might not be students anymore.
- \* We need decide if we'll have terms and condition.

## User Profile

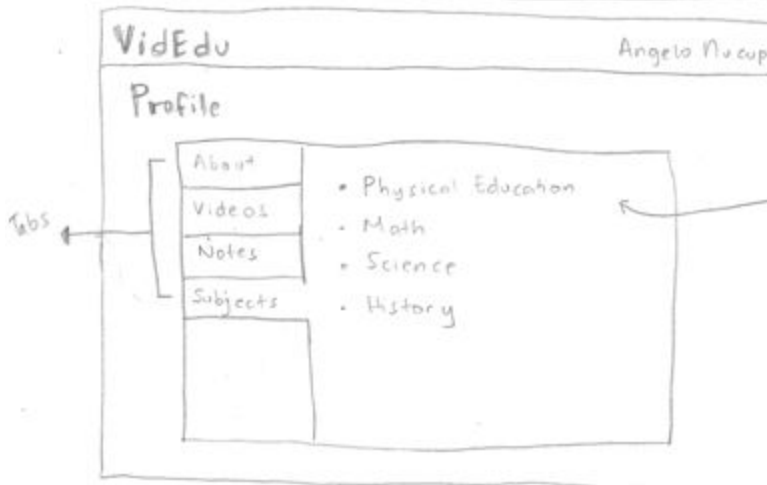
# USER PROFILE WIREFRAMES



- \* edit the user profile.
- \* only visible to user



- \* Buttons that will filter the videos displayed.
- Recent: show the user's videos he/she recently watched.
- Saved: shows the user's saved videos. Saved videos are videos the user wasn't able to finish watching and saving notes for under circumstances.



- \* Subjects and Notes format are the same.
- \* Clicking the subject link will lead to the specific subject page
- \* Same thing if it was notes. Clicking the notes under notes tab will lead to the user's specific notes.

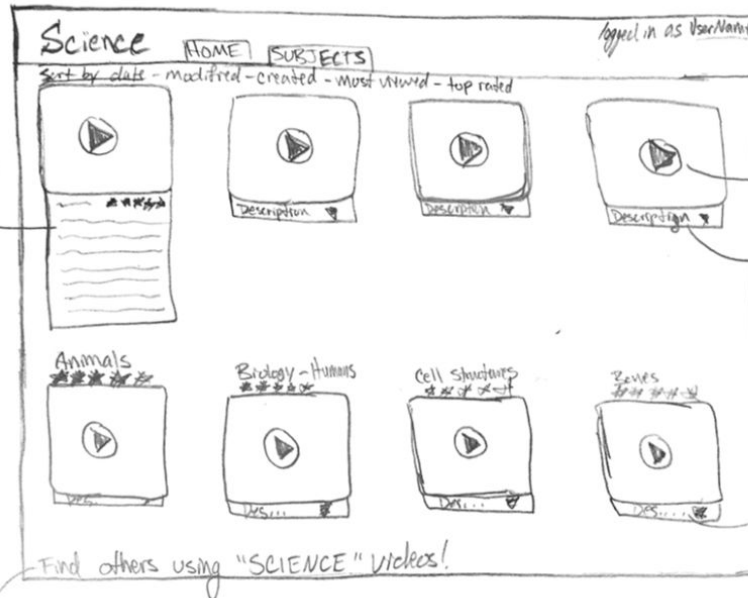


## Specific Subject

Specific Subject Page

TO-ADD:  
"ARTICLE"  
SECTION

Drop-down



Video takes you  
to note page

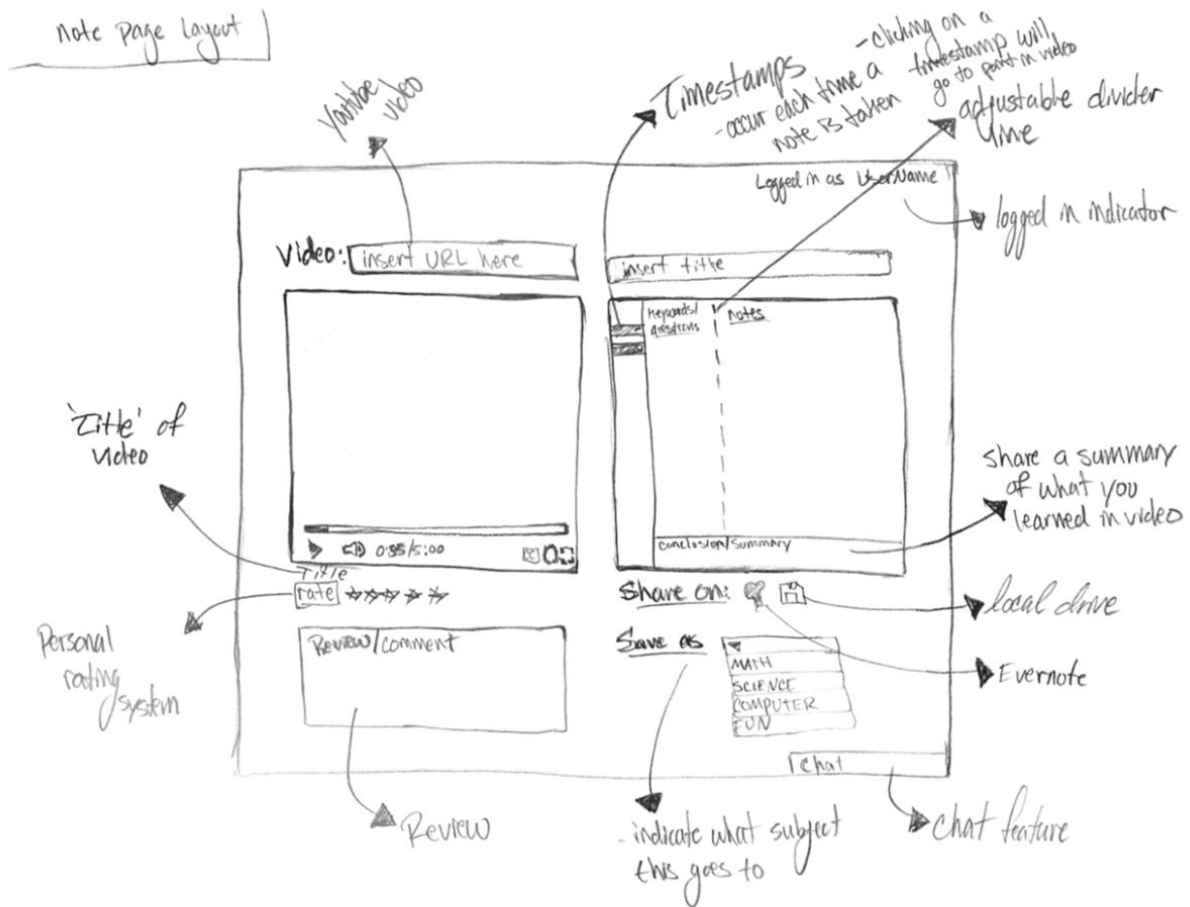
Drop-down of  
the description  
of the video  
that you summarized

Can be edited  
on the spot

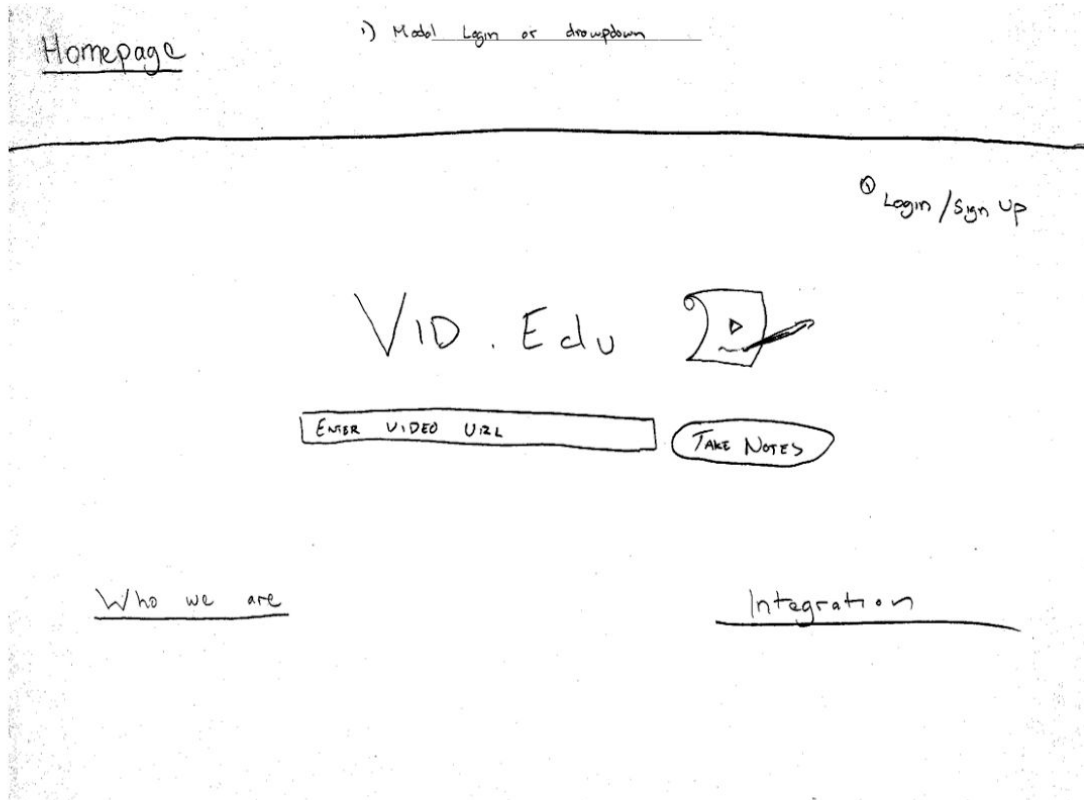
Find others using "SCIENCE" videos!

directs you to other users with the  
same subject title

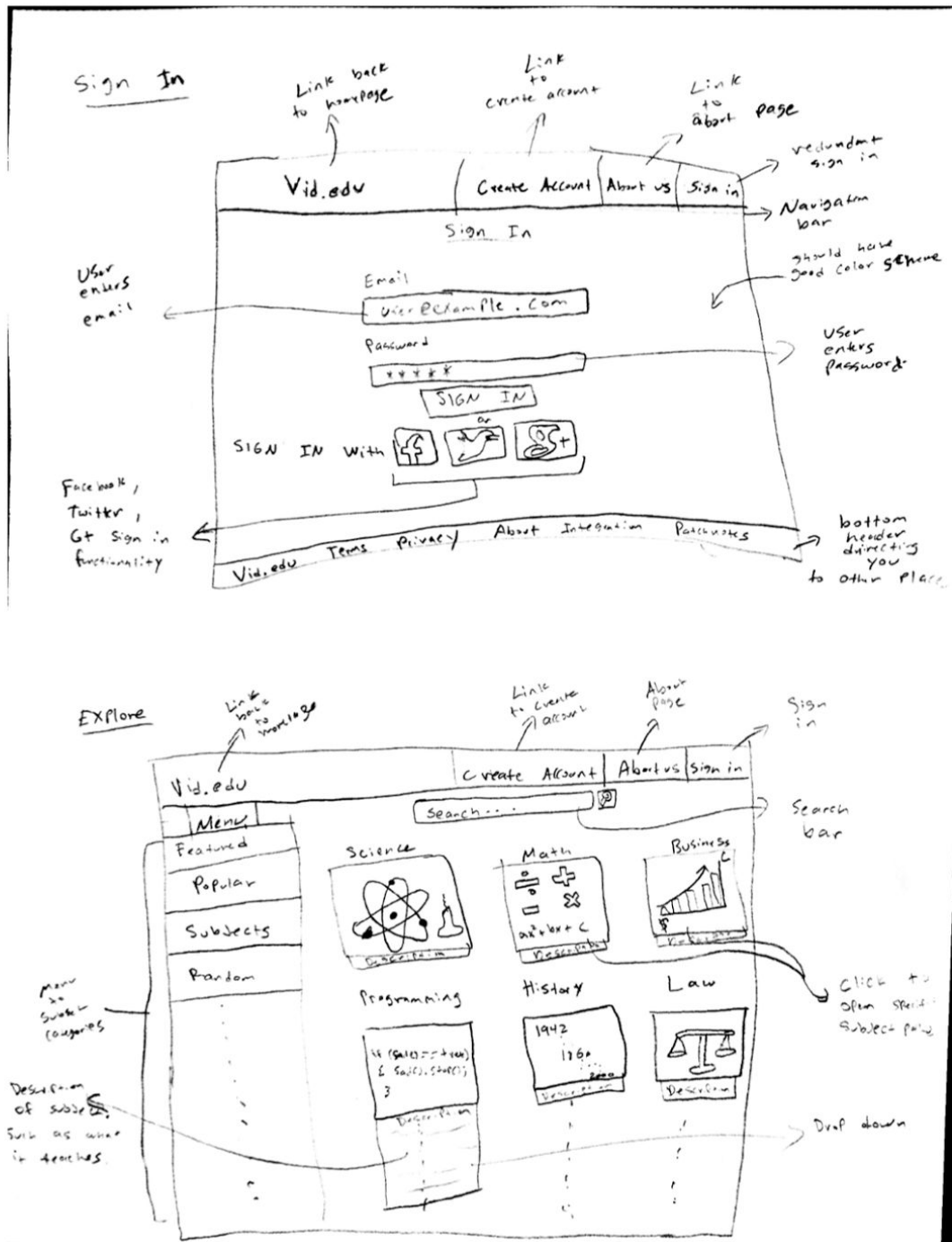
## Note Page



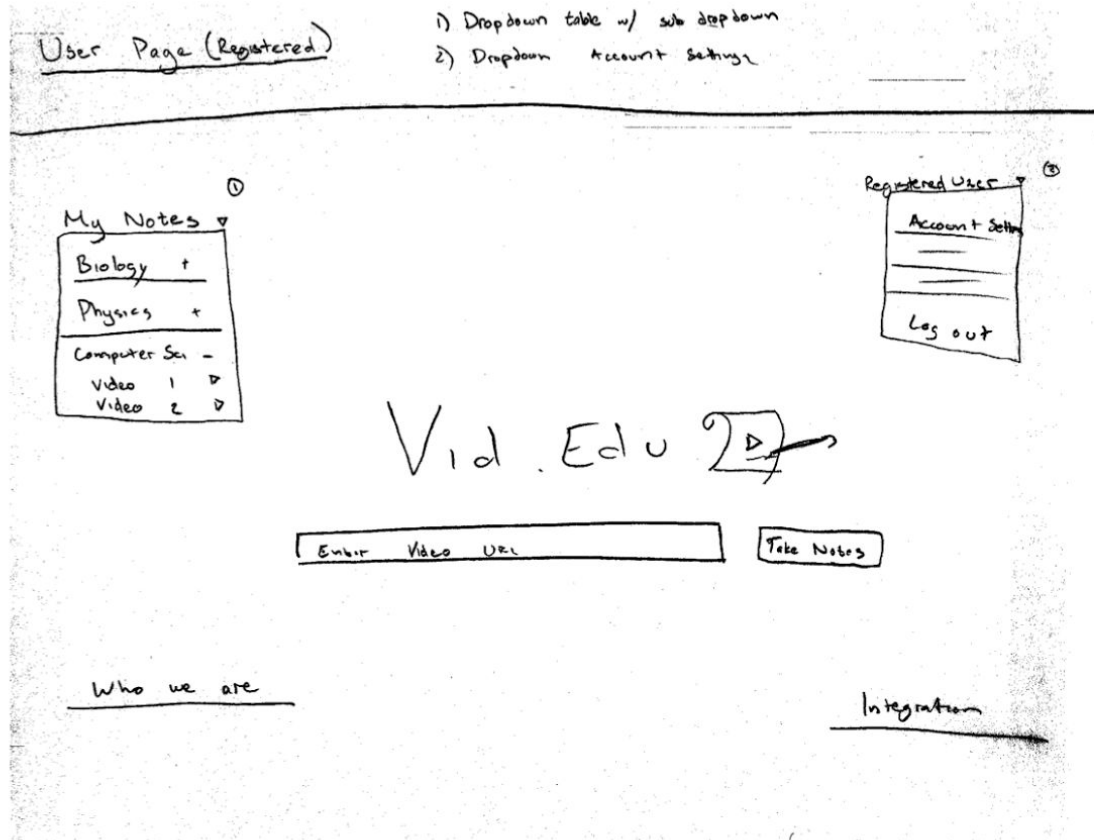
## Home



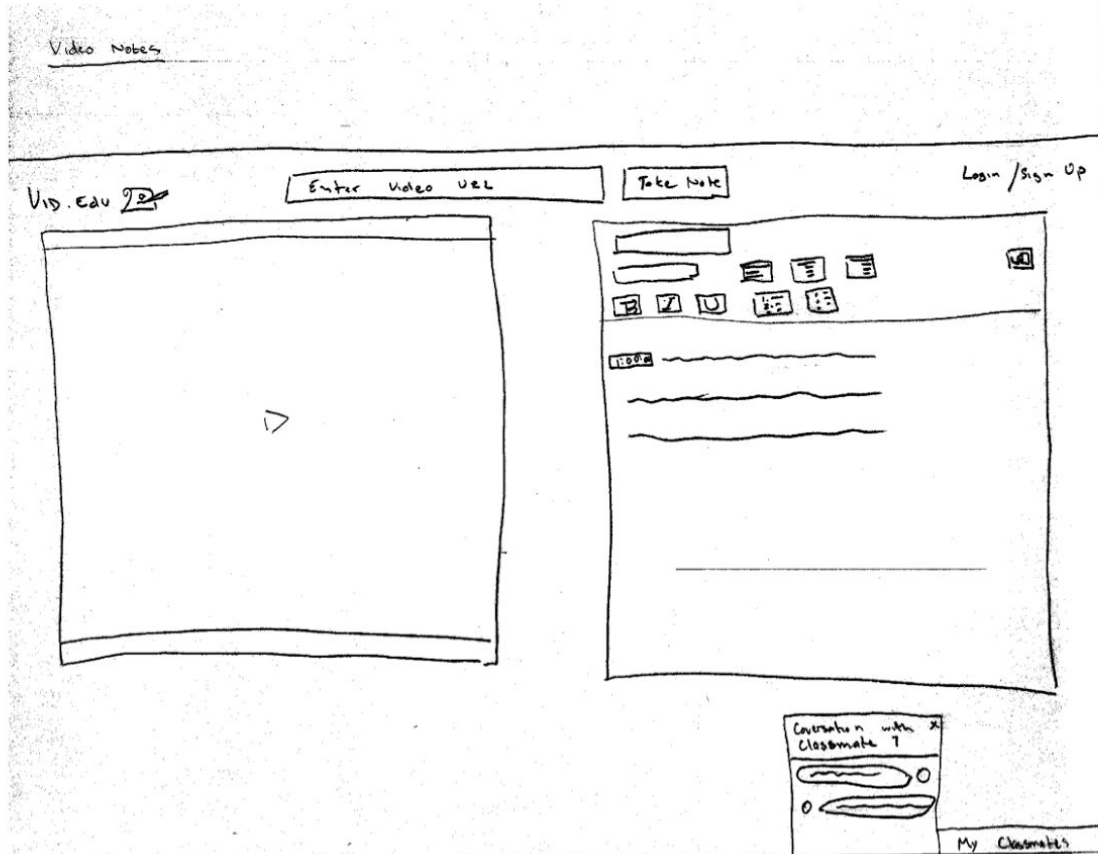
## Front Page V2



## Splash V2



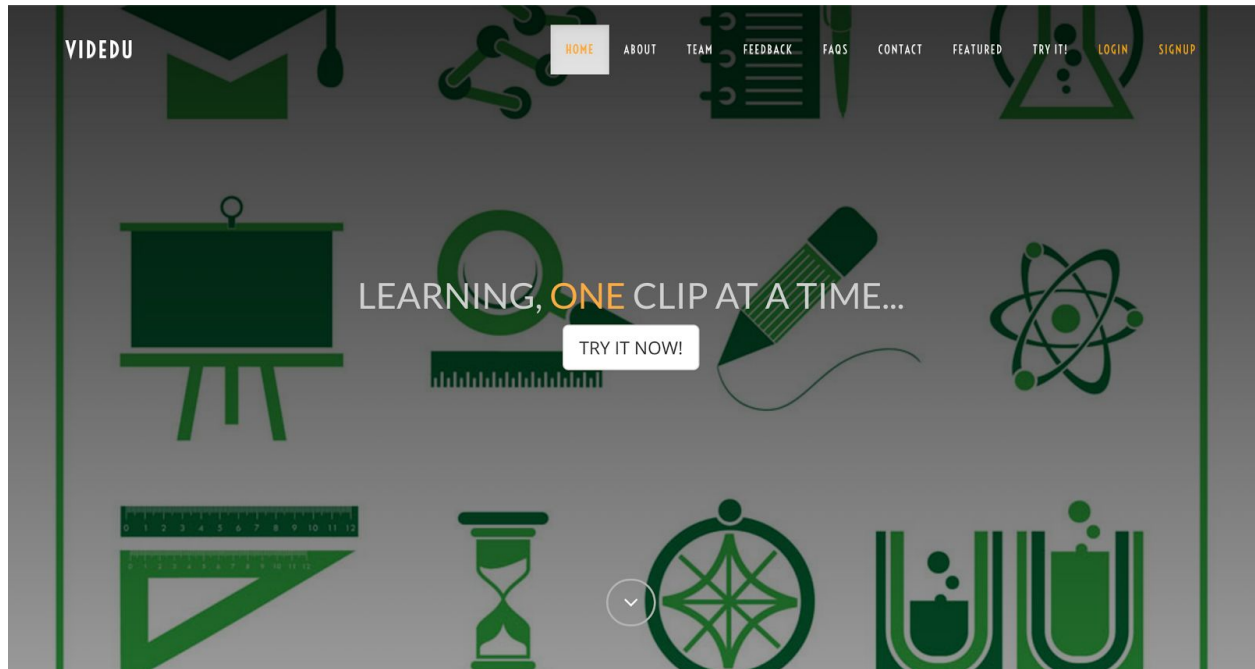
## Note V2



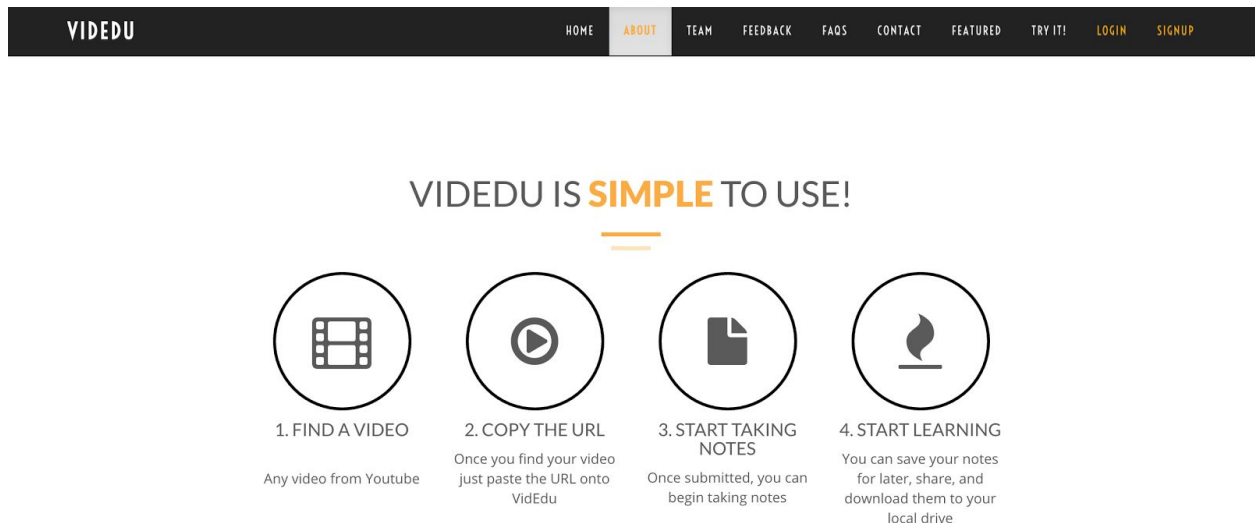
## Final Screenshots of User Interface

### Guest Session (Unauthenticated User):

#### Splash



#### How to Use



## Meet Our Team

**VIDEDU** HOME ABOUT **TEAM** FEEDBACK FAQs CONTACT FEATURED TRY IT! LOGIN SIGNUP

### MEET OUR TEAM

**Jonathan Raxa**  
Team Lead

Enjoys rap music, music production, dance, videography (editing), heath enthusiasts, skateboarding, snowboarding, outdoors, martial arts, learning new things, running, hacking learning, podcasts, radio (Sarah and Vinnie fan!), blogging, and reading.

Twitter SMB YouTube

**Eric Gonzalez**  
Tech Lead

SFSU Senior looking to work in the Web Development or Software Engineering industry, expected to graduate in May of 2016. I enjoy playing video games, watching and playing sports, or anything techie! Always eager to learn and experience new things.

Facebook Twitter YouTube Website

**Gerardo Gonzalez**  
Software Engineer

An SFSU Senior with an interest in Web Development. If he's not studying for school, you'll most likely find him watching anime, playing video games, or going out looking for good food. He also enjoys music production and videography.

Facebook YouTube

**Angelo Nucup**  
Full Stack Developer

I enjoy watching Anime and reading Manga. Not into sports, but I love playing badminton. I also like to travel because it's fun to always learn and experience new things. If being a programmer doesn't work out, I would like to be an animator. I think it's cool and creative.

Facebook YouTube

## FAQs

**VIDEDU** HOME ABOUT TEAM FEEDBACK **FAQS** CONTACT FEATURED TRY IT! LOGIN SIGNUP

### FAQS

**Q: Where can I get videos?**

A: Go to a video on YouTube. Copy the URL of the video. Paste the video URL into our "Add Video" page and take notes. Be sure to save at the end of your session.

**Q: How do I create a Subject playlist?**

A: For logged in users, go to "Add Subject" and from there you can add a photo representing your subject, a title, and a description.

**Q: How do I share videos with other people?**

A: As of this moment VidEdu does not support a link sharing capability with other users.



## Contact Us

### CONTACT US

(PLEASE FILL OUT ALL FIELDS OR ELSE SUGGESTION WONT BE RECORDED)

Name\*


Email\*

Suggestion\*

ALL RIGHTS RESERVED. VidEdu © 2015 - SFSU, CSC 667 Internet Application Design and Development

VidEduCSC667@gmail.com




## Guest Session “Add Video”

**VIDEDU**

HOMEABOUTTEAMFEEDBACKFAQSCONTACTFEATUREDTRY IT!LOGINSIGNUP

**WARNING - This is a trial session. You may use the application but your notes will NOT be saved until you sign in**

THE FASTEST WAY TO LEARN HOW TO OLLIE TUTORIAL



Rate It! ★★★★★

Write a Review

FileEditViewFormat

FormatsBIL[Icons]

p

*Sign Up or Login to place your video into a category*

Write a Summary/Description

VidEdu 17

### Main Feature 1: “Add Video”

VidEdu 18

## Show Video

VIDEDU

HOME

FEATURED

YOUR SUBJECTS

YOUR VIDEOS

ADD VIDEO

ADD SUBJECT

WELCOME, JONATHAN!

LOG OUT

Search

### Cute Baby Animals Standing for the First Time and Taking First Steps Compilation [HD VIDEO]

Cute Baby Animals Standing for the First Time and Taking First Steps Compilation [HD VIDEO]

the baby giraffe winked. Around the 2 second mark.

Video rated at: 5 stars

Category: [Biology](#)

Save to computer

acanucup's Summary

acanucup's Review

Cute Baby Animals Standing for the First Time and Taking First Steps Compilation [HD VIDEO]'s YouTube Data

Enter your comment:

Cannot be blank or contain more than 5000 symbols.

Post

## Main Feature 2: “Add Subject”

VIDEDU

HOME

FEATURED

YOUR SUBJECTS

YOUR VIDEOS

ADD VIDEO

ADD SUBJECT

WELCOME, JONATHAN!

LOG OUT

Search

### New Subject

Upload Image

Choose File No file chosen

Subject Title

Description

Back

Submit

## Different User's Subjects

VIDEDU

HOME

FEATURED

YOUR SUBJECTS

YOUR VIDEOS

ADD VIDEO

ADD SUBJECT

WELCOME, JONATHAN!

LOG OUT


Search

acanucup 's Biology Videos

Science

Add video!

The Stages of the Butterfly Life Cycle



Video published on YouTube at 15 November 2011


Rating: ★★★★★

Review: Great translation. [read more](#)

Summary: The stages of the butterfly life cycle. If you like butterflies, you should watch this. [read more](#)

Updated: 10 December 2015 03:21:18

Photosynthesis (Light Reactions)



Video published on YouTube at 3 March 2008


Rating: ★★★★★

Review: Cool animation [read more](#)

Summary: Process of Photosynthesis. Really cool stuff if you're into this kinda stuff. [read more](#)

Updated: 10 December 2015 03:21:34

Cute Baby Animals Standing for the First Time and Taking First Steps Compilation [HD VIDEO]



Video published on YouTube at 9 February 2015

Rating: ★★★★★

Review: Good compilation of baby animals. [read more](#)

Summary: The video is a compilation of baby animals. If you hate animals then maybe you should watch this.... [read more](#)

Updated: 10 December 2015 03:23:55

Edit Subject

Back to Subjects Home

## Subject Videos

VIDEDU

HOME

FEATURED

YOUR SUBJECTS

YOUR VIDEOS

ADD VIDEO


ADD SUBJECT

WELCOME, JONATHAN!

LOG OUT

Search


Skateboarding Videos



Best ways to learn skateboarding tricks!

Add video!

HOW TO INWARD HEELFLIP THE EASIEST WAY TUTORIAL





Video published on YouTube at 9 December 2015

Rating: ★★★★★


Review: Easy to understand! I couldn't wait to do [read more](#)

Summary: How to do an inward heelflip the easiest way [read more](#)

Updated: 10 December 2015 02:15:57

THE FASTEST WAY TO LEARN HOW TO OLLIE TUTORIAL





Video published on YouTube at 2 August 2014

Rating: ★★★★★

Review: [ewsryxtucyitvubiunoim;o](#) [read more](#)

Summary: [zsensdctfkim;cfvgbhjknim;hgjkl](#) [read more](#)

Updated: 10 December 2015 04:19:32

Edit Subject

Back to Subjects Home

VidEdu 20

## Edit Profile

**VIDEDU** [HOME](#) [FEATURED](#) [YOUR SUBJECTS](#) [YOUR VIDEOS](#) [ADD VIDEO](#) [ADD SUBJECT](#) [WELCOME, JONATHAN!](#) [LOG OUT](#)

### Edit jonathanraxa's Profile

First name

Last name

Email

Current password (indicate current password)

## Sign Up

**VIDEDU** [HOME](#) [ABOUT](#) [TEAM](#) [FEEDBACK](#) [FAQS](#) [CONTACT](#) [FEATURED](#) [TRY IT!](#) [LOGIN](#) [SIGNUP](#)

### Sign Up!

First Name

Last Name

Username

Email

Password (6 characters minimum)

Password Confirmation

[Already have an account? Log In](#)

Featured Videos

VIDEDU

HOMEFEATUREDYOUR SUBJECTSYOUR VIDEOSADD VIDEOADD SUBJECTWELCOME, JONATHAN!LOG OUT

Search


Featured

Video Education Across the Globe

Add video!

Sort by: Most RecentOldest to NewestBy title: A-ZZ-A

THE FASTEST WAY TO LEARN HOW TO OLLIE TUTORIAL



Video published on YouTube at 2 August 2014

Rating: ★★★★★

Review: ewsrxtucyitvubluinoim;o [read more](#)

Summary: zsenxdtckim;cfvgbhjknim;hgikl [read more](#)


Updated: 10 December 2015 04:19:32

Subject: Skateboarding

Created by: You!

[🔗](#) [📄](#)

Cute Baby Animals Standing for the First Time and Taking First Steps Compilation [HD VIDEO]



Video published on YouTube at 9 February 2015

Rating: ★★★★★

Review: Good compilation of baby animals. [read more](#)


Summary: The video is a compilation of baby animals. If you hate animals then maybe you should watch this..... [read more](#)

Updated: 10 December 2015 03:23:55

Subject: Biology

Created by: acanucup

The Stages of the Butterfly Life Cycle



Video published on YouTube at 15 November 2011

Rating: ★★★★★

Review: Great translation. [read more](#)

Summary: The stages of the butterfly life cycle. If you like butterflies, you should watch this. [read more](#)

Updated: 10 December 2015 03:21:18

Subject: Biology

Created by: acanucup

## Features

### 1) **Main Feature 1:** “Add Video”

- a) The “Add Video” feature is the main feature that enables users to copy and paste a Youtube link to the input form and run the video while simultaneously take notes on the TinyMCE editor. Upon a keydown event, the TinyMCE editor will cause the video player to pause while the user takes notes. On a “return” event on the keyboard, the video will resume playing.
- b) Users shall rate the video in a range from zero to five stars. When a cursor is hovered over one of the stars, the stars light up to indicate the rating of the video.
- c) Users shall write a review of the video in the textarea below the rating system
- d) Users shall write a description/summary of the video that would help the user understand, in depth, the material that was taught to them during the video. It also helps other users who watch the video what to expect to learn from the video.
- e) Users shall categorize their video under a subject heading of their choice.

### 2) **Main Feature 2:** “Add Subject”

- a) “Add Subject” enables users to categorize their videos into specific playlist to allow them to organize their videos under specific playlists. Adding a subject is an entirely separate functionality handled differently than the videos.
- b) Users shall add a subject category to categorize their videos into specific playlists
- c) Users shall upload an image that represents their subject
- d) Users shall define a title and a description for their subject playlist
- e) Users shall see their own videos under each subject playlist
- f) Users shall see other users’ videos in their own category

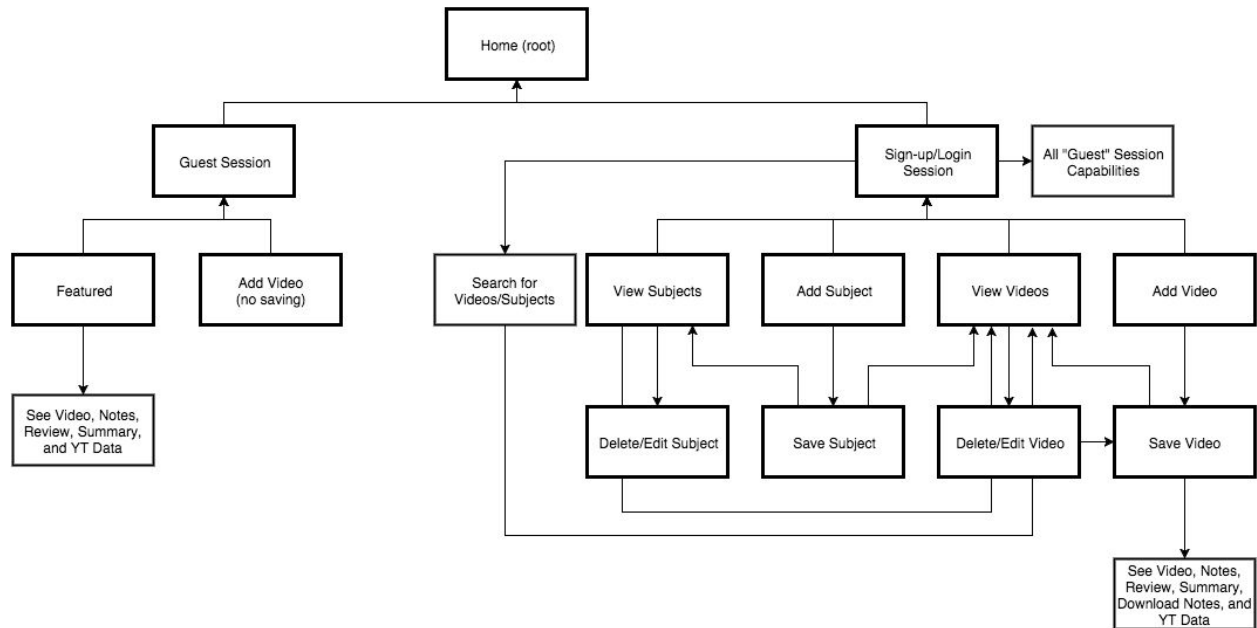
### 3) **Bonus Features:** “Search”

- a) Users shall type in a search entry on the navigation bar to find a video

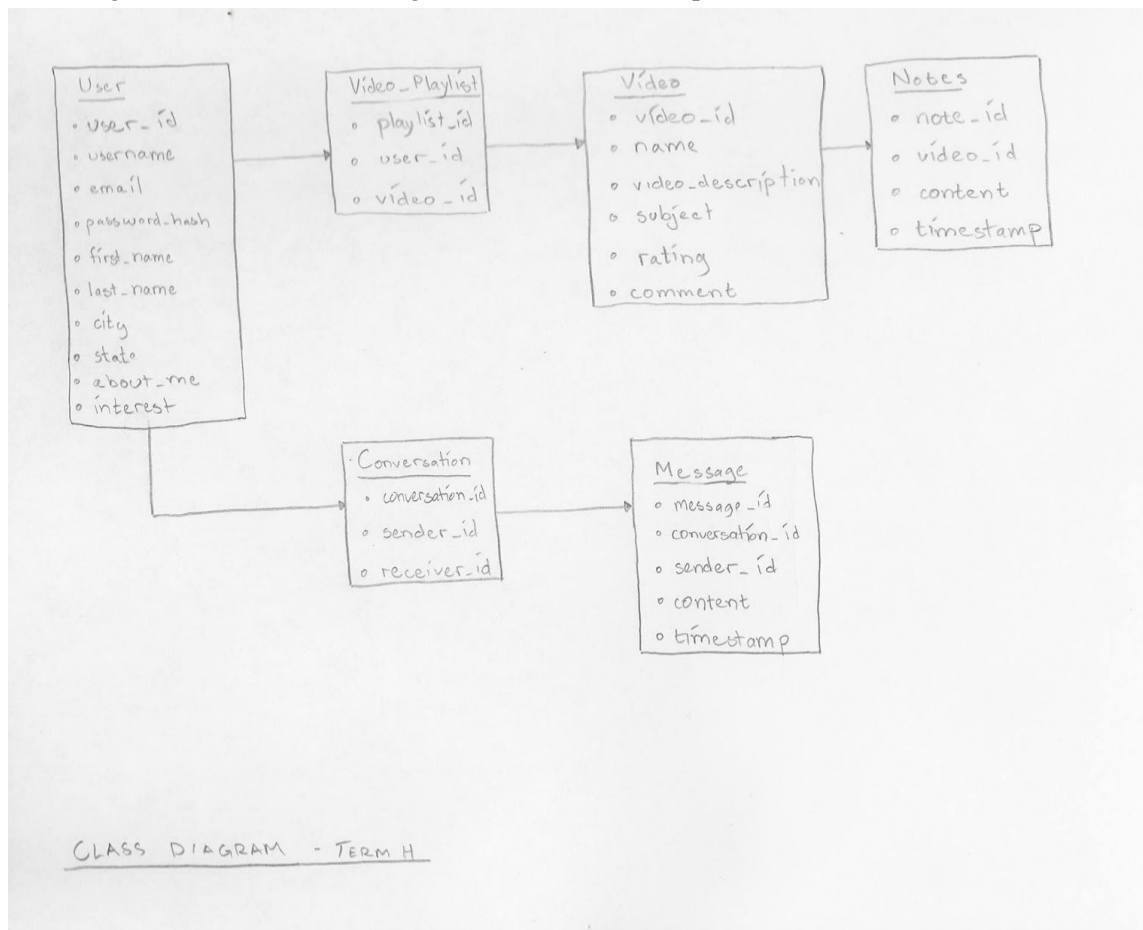
### 4) **Bonus Features:** “Sorting”

- a) Users shall sort the featured videos from most recent
- b) Users shall sort the featured videos from Oldest to Newest
- c) Users shall sort the featured videos from A-Z
- d) Users shall sort the featured videos from Z-A

## User Interface and Backend Flow Diagram



The following is an initial backend diagram and the relationships between the databases.





## Technology Stacks

### Frontend

- HTML
- CSS/SASS/Bootstrap
- Javascript/JQuery

### Frameworks

- Rails
- Bootstrap (CSS)

## GEM Implementation

There were many Rails Gem implemented in this project, many of which came with Rails by default. The following are some essential gems used in our application to create the full functionality and implementation of the project.

### Code Implementation Examples on UI

**YT (Youtube):** Youtube gem used to obtain youtube data for a specific video. With this gem we can pull in data from the video such as the title, description, etc.

```
// video_observer.rb
// the models file that pulls in the data of the Youtube data before the video is saved
video = Yt::Video.new url: resource.link
  resource.uid = video.id
  resource.title = video.title
  resource.likes = video.like_count
  resource.dislikes = video.dislike_count
  resource.published_at = video.published_at

# Added
resource.yt_description = video.description
resource.channel_title = video.channel_title
resource.view_count = video.view_count
```

**Devise:** Sign in and sign out system. Devise gives us an easy accessible user authentication

system that deals a lot of the behind the scenes work for us. The following excerpt is from the controller used to handle any omniauth user login or sign-up. It creates a new user object from omniauth and then checks if the user exists or not, if it does, it moves on, if it does not, then it redirects to the user sign-up page.

```
// omniauth_callbacks_controller.rb
user = User.from_omniauth(request.env["omniauth.auth"])
```

**TinyMCE:** Advanced text editor that allows for more user interaction. TinyMCE object is defined and handles the keydown events in order to pause and resume the Youtube video.

```
tinyMCE.init({
  selector: "#tinymce",
  setup: function(editor) {
    editor.on('keydown', function(args) {
      // pause only with letters
      if(args.keyCode > 65 && args.keyCode < 90){
        player.pauseVideo();

        } else if (args.keyCode == 13){
          player.playVideo();
          bool_val = true;
        }

        // appends the current timestamp from video
        if (bool_val) {
          append_timestamp(player.getCurrentTime());
          bool_val = false;
        }
      });
    });
  });
```

**Faye:** Gem used for a real time chat system used on the video show video after creating a new video. Users shall be able to meet up and chat on a specific video that was created. The gem saves the comments to a user and a separate partial is loaded on the video show page to handle the comments.

```
// comments_controller.rb
...
if current_user
```

```
// builds the comment to link to the current_user
@comment = current_user.comments.build(comment_params)
```

...

**Masonry:** Responsive panels (development only). Clean, responsive, and smooth transitioning panels for appealing visuals and engaging user experience.

```
$('#videos').masonry({
  itemSelector: '.box',
  isFitWidth: true
});
```

**Raty:** Visual rating system where users can choose a rating on a video by choosing the number of stars available. Instead of simple integers, users will see gold stars that determine the rating given to the video:

**readonly stars:**

```
$('.star-rating').raty({
  path: '/assets/',
  readOnly: true,
  scoreName: "data-score",
  score: function() {
    return $(this).attr('data-score').toString();
  }
});
```

**user enabled edit:**

```
$('#star-rating').raty({
  path: '/assets/',
  scoreName: 'video[rating]'
});
```

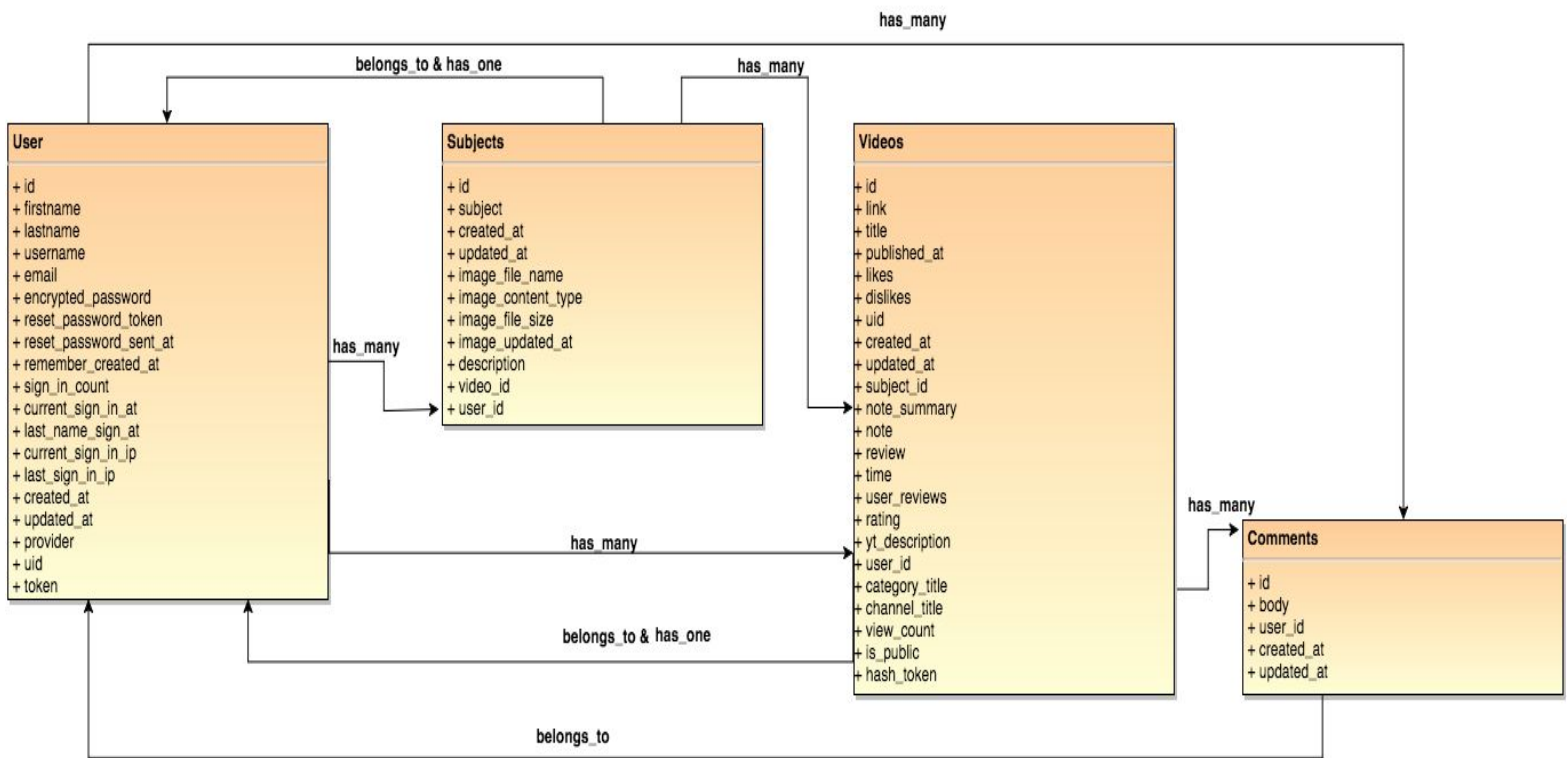
**Paperclip:** Image uploading gem that allows users to upload an image onto the server. This gem was used to upload an image that represents the subject created by the user.

```
// file_field helper method
<%= f.file_field :image %>
```

## Backend Implementation Overview

**ABSTRACT:** Using the ActiveRecord mechanism given to us by the Rails framework, we were able to create relational databases encapsulated by objects. The databases were connected via foreign keys, which allowed us to connect the databases together for proper mapping. In this way, we were able to create subjects and have multiple videos under specified subjects, and only show data associated with one another without having to call specific data. The following is a diagram of our current database relationship:

### Database Relationships (diagram)



### Database Relationships (text)

User → *user.rb*

```
has_many :subjects, dependent: :destroy
has_many :videos, dependent: :destroy
has_many :comments, dependent: :delete_all
```

**Subject** → *subject.rb*

```
has_many :videos  
belongs_to :user  
has_one :user
```

**Video** → *video.rb*

```
belongs_to :user  
has_one :user  
has_many :comments  
belongs_to :subject  
has_many :ratings
```

**Comment** → *comment.rb*

```
belongs_to :user
```