

# Cover Page

## 6620 Databases Project

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Group G4

Link structure to access website

[http://webapp.computing.clemson.edu/~jplineb/MeTube\\_6620\\_Repository/](http://webapp.computing.clemson.edu/~jplineb/MeTube_6620_Repository/)

(-jplineb is one of our team members usernames)

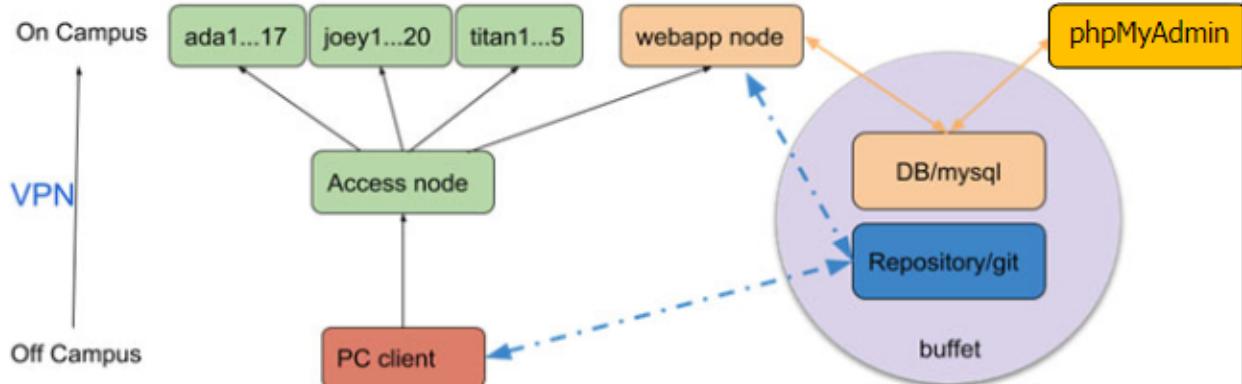
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## System Design



This system was developed using various components. First we utilized the webapp node server , which is an Apache web server, that Clemson University offers to build web applications. The webapp Apache server uses the Linux operating system. From our web app node we connected our folder to a buffet repository that held all our code files as well as created a mysql relational database called MeTube\_6620\_zt8l and utilized phpMyAdmin to create and configure the tables in that database (See above figure for clearly diagram).

Our server side web framework utilized the php (Hypertext Preprocessor) language to access and manipulate our database. We utilized HTML code for the client side presentation of the website on their web browser.

The communication between the web client and the server was done through HTTP protocols. How that works is that as a user enters the website, they are connected to the web server and actions the user takes on the website might lead to a server request. In this case the user might want to find another user on the website and add them to their contact list. When the user initiates this request, it is sent to the server where it is handled by a php script(s) to query the database and generate a response that is sent back to the client.

## Notes:

- All web pages are located in the ./project\_template\_page/ directory
- All php scripts are located in ./php\_scripts/
- All experiments are located in ./experiments/
- All uploaded files are located in ./uploaded\_files/
- [https://.../MeTube\\_6620\\_Repository/](https://.../MeTube_6620_Repository/) will take you straight to the home page.
- Home page is found in ./project\_template\_page/index.php

## ER Diagram

Link to ER Diagram:

<https://drive.google.com/file/d/1-eFdLnGwbCYjO4NoPhEs-sAJPafeV54W/view?usp=sharing>

(click and open in draw.io, you should have access)

ER will also be located in zip

## Database Schema

Located in zip file

## Function Design

### User Account

#### User Registration

Users will need to give their email, first name and last name, as well as create a username and password to make an account.

#### Sign-in

Users need to give their username and password to sign into their account.

#### Sign-out

Users need to press log out on the top navigation bar to log out of their account.

#### Profile Update

Users need to update their email, first name, last name, username, and password to update their account.

## Contact List

Users need to go into account details to access their contact list.

Users need to search for an existing user to add to their contact list.

Users need to search for a user on their contact list to remove them from the list.

## Contact List Organization

Users can classify a user they are adding in their contact list as a friend, family, favorite, or colleague.

## Blocking a User in the Contact List

Users need to search for an unblocked user on their contact list to block them.

Users need to search for a blocked user on their contact list to unblock them.

## Data Sharing

### Upload Multimedia Files

Users will need to be logged in to upload media files.

Users need to choose a file to upload as well as provide a unique file name, a file description, choose a file type for the uploaded file, a category for the file, a sharing mode for the file, and provide file keywords, in order to upload a file.

Web Interface for Meta data of uploaded files such as title, description, keywords, category, etc.

Users will need to be in the Browse page to access the media page for a specific uploaded file.

Users will need to click on the media page button for a specific file in order to see their metadata.

Users will need to click on File MetaData in a files media page to see that file's metadata.

## Download

Users will need to be in the Browse page to access the media page for a specific uploaded file.

Users will need to click on the media page button for a specific file in order to download that file.

Users will need to click on the Download button to download a file to their computer.

## View Media Files

Users will need to be in the Browse Page to view media files.

Users will need to click on the media page button for a file to view the file.

Users will need to be in the Account Details Page to view their uploaded files and favorites list.

Users will need to be in the Channel Page to view their uploaded files.

Users will need to be on the playlist page to view files added to a specific playlist.

## Sharing Mode

Users will choose a sharing mode for the multimedia file while they are uploading it. The options are public, private, and contacts only.

# Media Organization

## Browse by Category

Users will need to be in the Browse Page to browse all uploaded files by category.

Users will need to pick from the dropdown with the label “Search by category” to pick a category to search for.

## Channel

Users will need to be in the Channel page to view their own channel, if they have uploaded files.

Users will need to be in the Find Channels page to view all the channels for all users.

Users will need to click on “link to channel” to access a user’s channel.

Users will need to be in a user’s channel to subscribe and unsubscribe.

## Playlists

Users will need to be logged in to access their favorites list.

Users will need to create a new playlist by giving it a name in the Playlist page.

Users will need to go to the Browse page, and add a specific file to a playlist by searching for that playlist name.

Users will need to be in the Playlist page to rename an existing playlist.

Users will need to be in the Playlist page to delete a playlist.

Users will need to be in the Playlist page to click a playlist title to access all the files stored in that playlist.

Users will need to be inside a specific playlist to sort the playlist files by specific features such as name and size.

## Favorites List

Users will need to be logged in to access their favorites list.

Users will need to be in Account Details to access their favorites list.

Users will need to be in the Browse page to add a specific uploaded file to their favorites list.

## Most Viewed

Users will need to be in the Homepage of MeTube to see the most viewed files on the left column.

## Most Recently Uploaded

Users will need to be in the Homepage of MeTube to see the most recently uploaded files in the right column.

## Ordering Media Files in Different Ways

Users will need to be in the Browse page or logged in and inside a specific playlist with files added to order them.

Users will need click on a feature to sort the files with (name, upload date, size, times viewed)

Users will need to click on whether they want to sort in ascending or descending order.

## User Interaction

### Messaging Exchange between Users

Users need to search for a user to message.

Users will see their sent messages in their outbox.

Users will see their received messages in the inbox.

Users need to click on the specific message received in their inbox to answer it.

Users will need to type a message to answer that specific message that they click on their inbox to answer.

Users will need to go back to their Main Messaging page to see their newly sent message in their outbox.

### Commenting on Media File

Users will need to login to comment on a media file.

Users will need to add a comment to submit a comment for a media file.

Users will need to click on the reply button next to a comment if they directly want to reply to it.

### Media Rating

Users will need to login to leave a rating using the 5 star rating system on a media file on their media page.

### Group Discussion related to a certain topic or some multimedia files

## Search

### Keywords-based search

Users will need to be in the Browse page to do keywords based search.

Users will need to type in a keyword, file title, or part of a file title to get search results based on that input.

### Word Cloud

### Media Recommendation

Users will need to be on the media page of a file in order to see recommended media based on the file they are viewing.

### Feature-based Media Search

Users will need to be in the Browse page to do feature-based media search.

Users will need to pick a file type in search by file type, to search by file type.

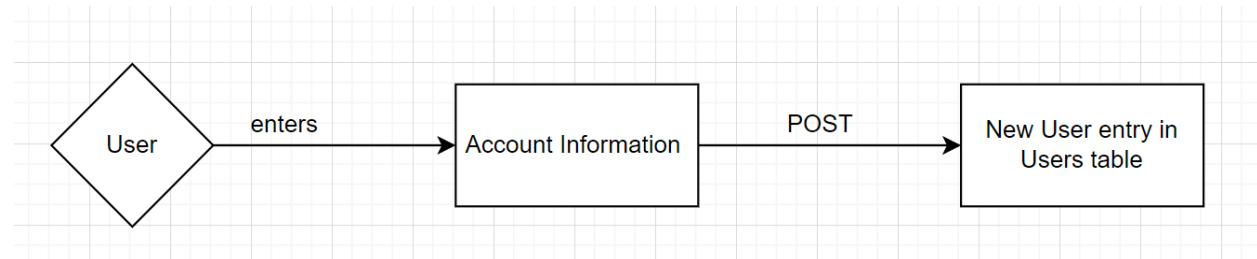
Users will need to pick a numeric value from 1 MB to 2 MB to search by size of media files.

## Implementation Details

Your implementation details discuss how you implement those functions, including flowcharts, data flow, and other implementation considerations.

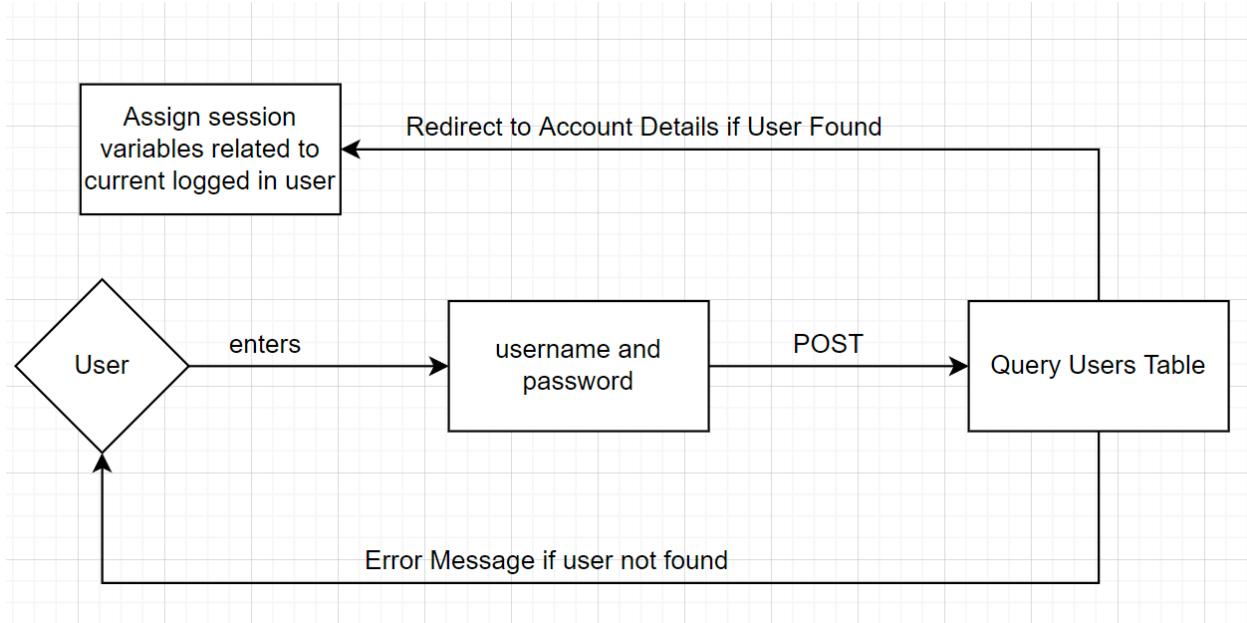
### User Signup

In order for a user to access all features of MeTube, one must create an account with the MeTube server. This is to allow users to access all of their personal features that can be saved to MeTube such as playlists. To do this, we created MeTube\_Signup.php that has a form where users can enter their email, username, first name, last name, and password. Submitted via a button linked to a POST action for signup.php. This then updates the “MeTube” database by adding an entry to the “Users” containing said information. Upon sign up, a user is assigned a unique id so they can modify their account information without losing track of their messages, playlists, subscriptions, uploads, etc.



## User Login

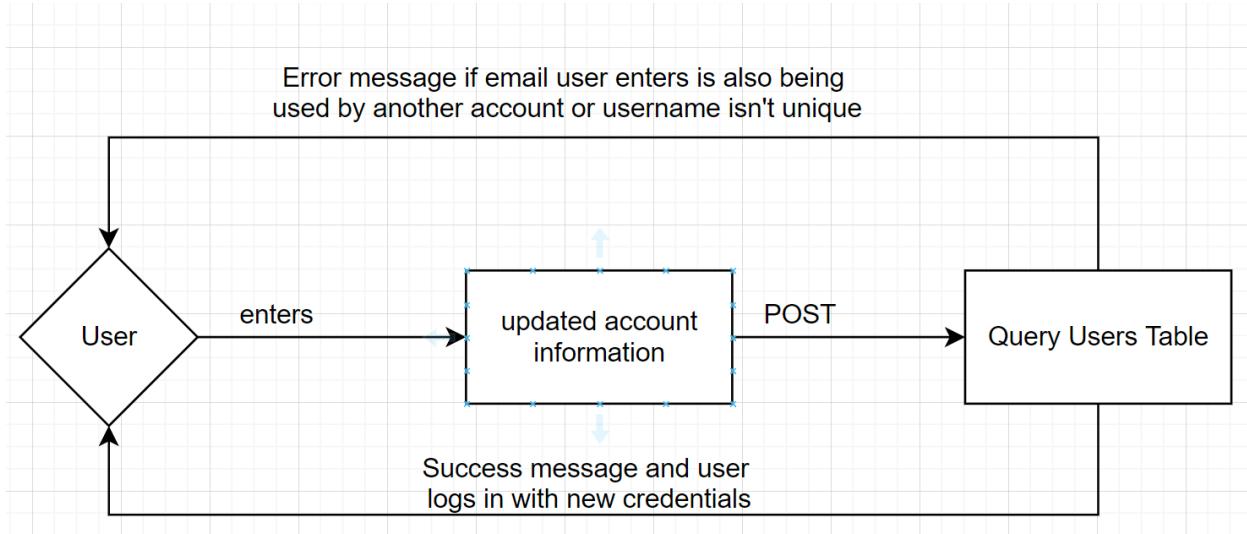
In order for a user to access their new account, they are required to sign in using the email and password created when they joined the MeTube channel. Username and password were selected as they don't contain user critical information such as their last name or email address. This feature is implemented on the MeTube\_Login.php which contains a form for a user to enter their credentials. The user also has an option to click a link to the Signup page if they don't have an account. Users are barred from making an account with a username that already exists so that duplicate accounts can't be created. They also have to confirm their password so a user doesn't accidentally enter an unintended password. Pressing the submit button sends a POST request to the server via Login.php script. A query is executed on the Users table to verify user credentials. If successful, This will create `$_SESSION` variables using `StartSession()` that will be used to track the user throughout allowing them to access content related to them.



## User Account Page

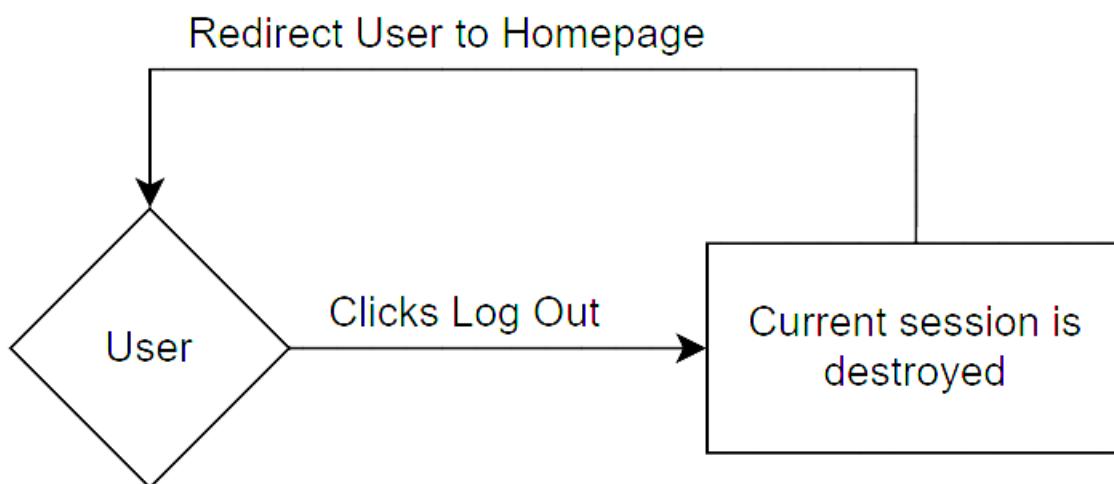
The user account page was designed to be certain of everything to a user. It contains all the information regarding user account details, uploaded content, favorite content, messages, blocked lists, contact lists... This page is only accessible by the user, so it shows all their uploaded content (public and private). Users can also change their account details using this page. In order to change account details, users need to fill out a form where they will enter their all the same sign up information to change their account. Users can use the same first name, last name, password, and email. All that needs to be unique is the username. Once the user hits the Update Account Information button, php will query and update the table row in Users where

the current users' information is located. The user just needs to log in with the new information to reflect the account details update.



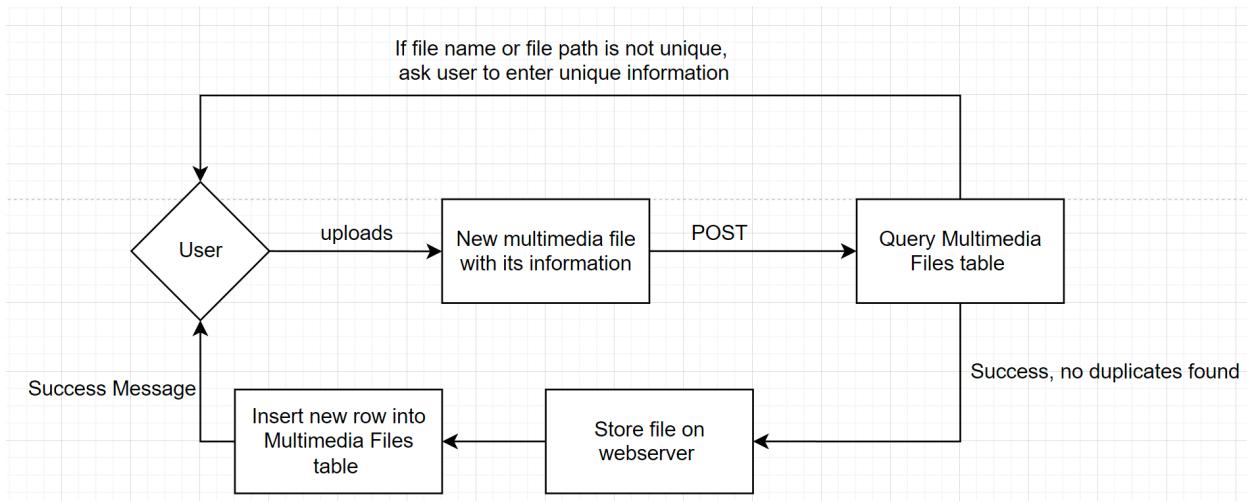
## User Log Out

Once logged in, a user can log out by pressing the Log Out button in the top right of the page. This activates a POST action that activates the `logout.php` script which kills the session, stripping `$_SESSION` of variables needed for the user to access content related to them.



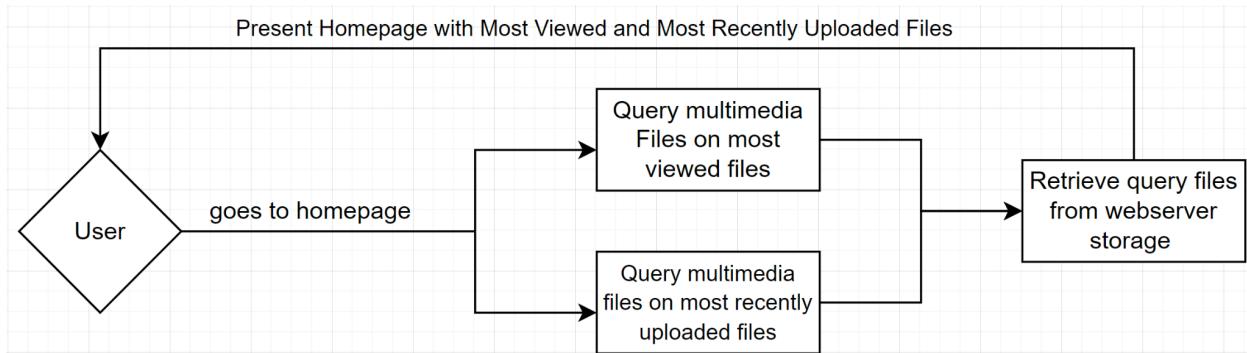
## User Upload

In order to have a successful media platform, MeTube needed a way for users to share their own content. Using MeTube\_upload.php, a user can upload their content and in the process give it a name, description, keyword tags, category, etc. so that other users can find it in the browser. We limited the user to uploading 2MB files as that is the maximum allowed by the php default config running on the Apache server given to us by the school of computing. We were unable to make this amount bigger. Once a user enters all their information, a submit button at the bottom sends the file over to web server to be stored in uploaded\_files and updates the MeTube database adding an entry to the Multimedia\_Files table with the user entered information, the path to the file on the web server, the time of upload, and a unique identifier.



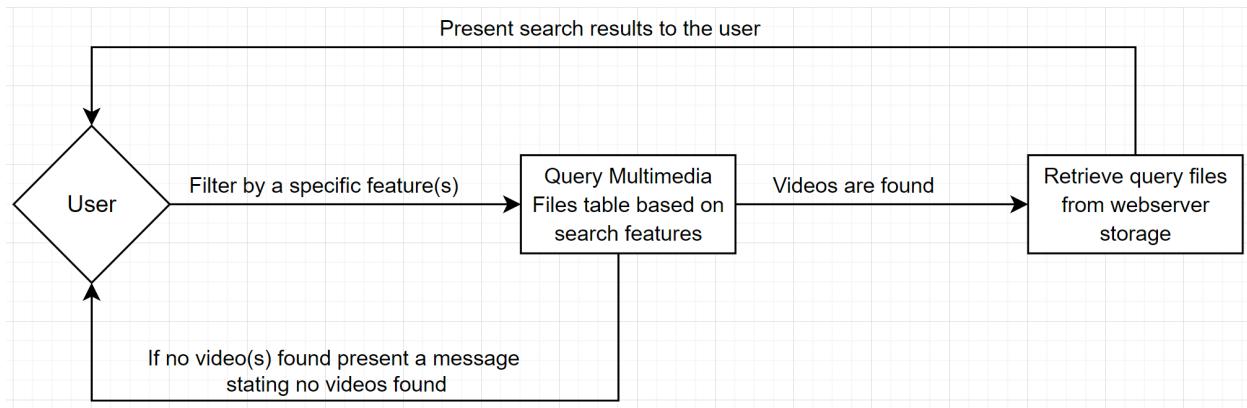
## Home Page

For a general overview of content, the Home page allows the user to view Most Viewed Media and Most Recent Media. This is performed by two separate sql queries executed in the home\_page.php script on the Multimedia\_Files table that return the top 6 for each of the rankings. Displaying the media is performed by our displayMedia php function. Two buttons on this page also exist: Message Users and Playlists. These are shortcuts for a logged in user to be redirected via php to the Messages page and Playlist page found associated with their account. If a user is not logged in, they will be redirected to the MeTube\_Login.php page.



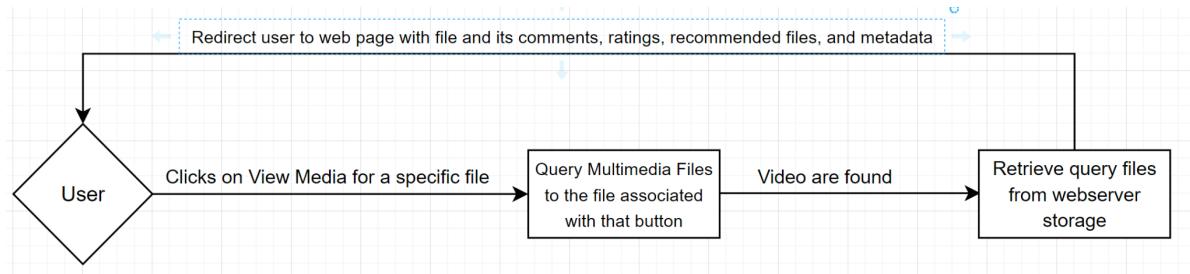
## Browse

In order to view others' content on MeTube, we had to create a way of searching and viewing all available media content to the public. `MeTube_Browse.php` is our implementation of such features. On this web page, users can initially view all public content. If they want to find particular content they can search content by its keywords, file name, or description using a search box. At the same time, they can filter based on category, file type, file size and sort said content by name, size, views, and time uploaded. These filters are sent to the server via a POST action from a forum using the search button. `Create_video_grid.php` then executes a sql query depending on the options selected by the user and shows them the results of the query using `displayMedia` function. For all content, a user has three options to interact with it. They can either add the content to their features via button press using a POST action, add their content to a playlist via a button using POST action, or go to a media page via a button using a POST action that activates a `goto_media.php`. Selecting to view media redirects a user to a webpage named `MeTube_Media.php?id=id`.



## Viewing Media

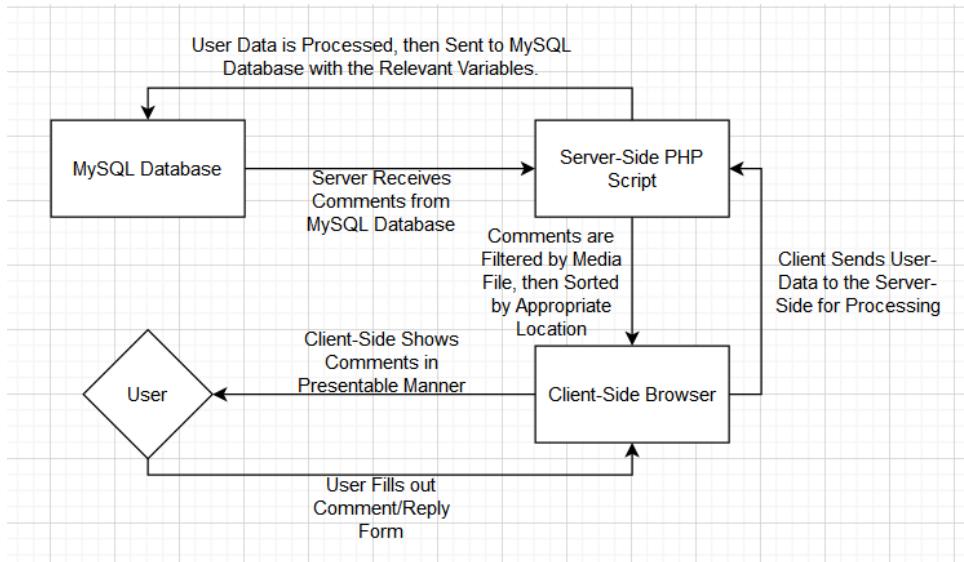
For users to interact with content (for example seeing content metadata, rating it, downloading it, and commenting on it) we created a `MeTube_Media.php` page. Using URI requests, the media page can display content based on its unique id in the `Multimedia_Files` by passing `?id=id` argument. For example, to access content with unique id=1, the associated web page is `MeTube_Media.php?id=1`. We did this for easy content page generation using the buttons in the `MeTube_Browse.php` page. After the id is passed from the `goto_media.php` script, a query is run on the `Multimedia_Files`, `Commenting`, and `Media_Ratings` table to load the media, media metadata, comments, and ratings section of the page. The `goto_media.php` script also updates the `view_count` of media in `Multimedia_Files` via sql query so that stat is tracked.



## Commenting on Content

Using a Textarea object, the website allows the user to place a “root” comment. This comment will be considered its own parent, and displayed under the media file at the farthest indent. All comments, regardless of parent/child status, will have a reply bar under it. If a user decides to reply to another comment, then the page will update and put the comment at the relevant location.

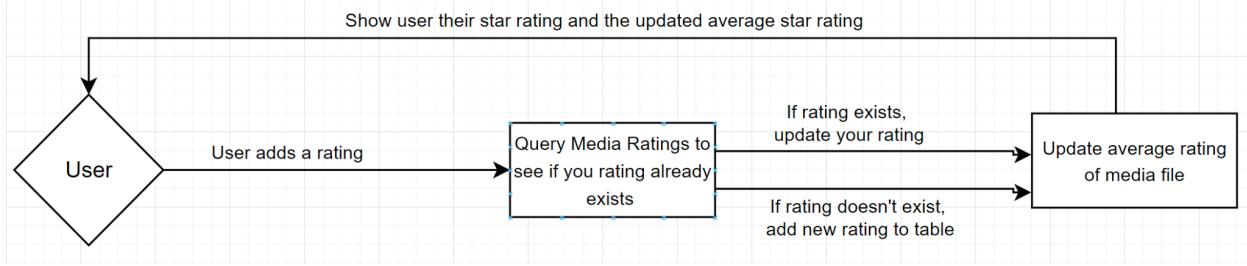
Each comment has a few indicators of its status. It has its own comment\_id, parent\_id, and comment\_level. The parent\_id is the comment\_id of the reply’s parent. When the page loads, the comments are sorted by their comment\_id. Comments that are direct children are placed next to their parents, with the most recent comments sifting to the top. Comments a level down will automatically be placed under a comment of a higher level.



## Rating Content

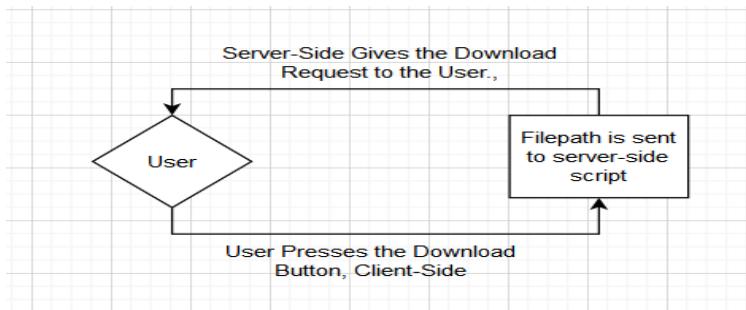
The Rating System is composed of two portions, the individual rating and the average rating. For the individual rating, the user can press on stars 1-5, each representing a level of satisfaction with the video. If the user has never reviewed this video before, it will add a new entry to the database. If the user has reviewed the video before, the database will update the old ranking. Once the system has stored the review, the stars will change from black to yellow.

The average rating is calculated by taking all of the ratings of that particular media, and finding its arithmetic mean. For the sake of simplicity, integer division is performed for the calculation. On the front-end, another row of 5-stars are kept under the user rating. Likewise, the stars will light up based on the average.



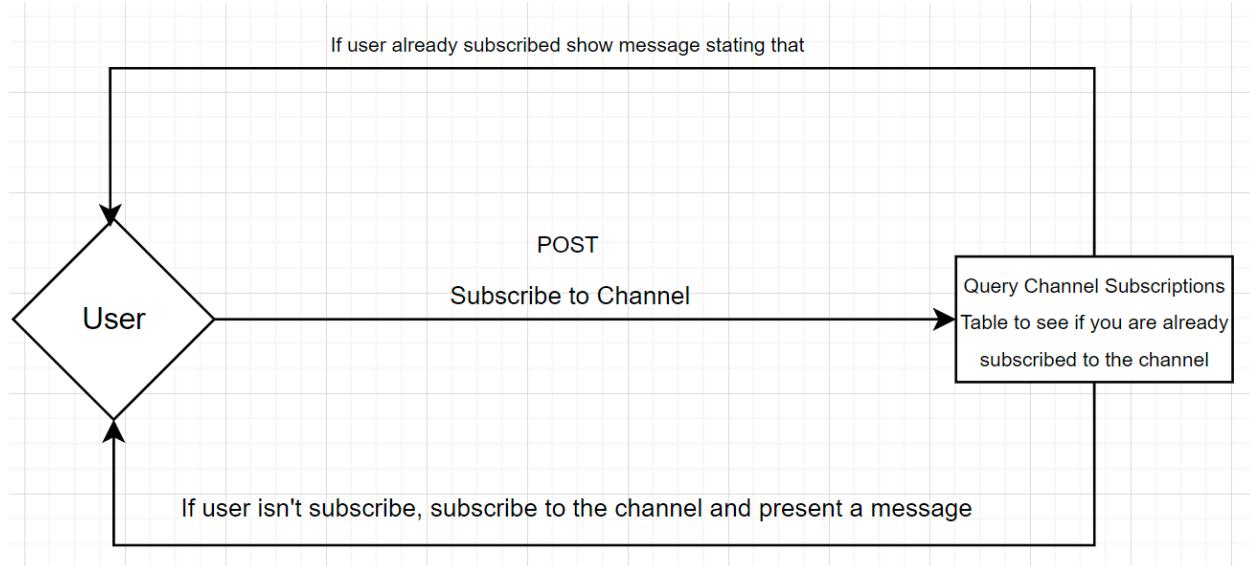
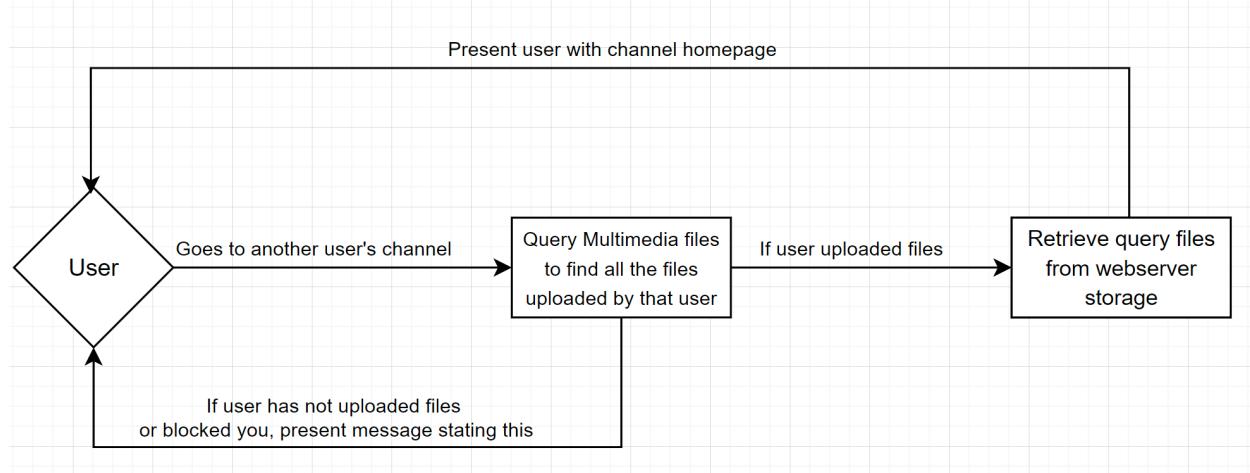
## Downloading Content

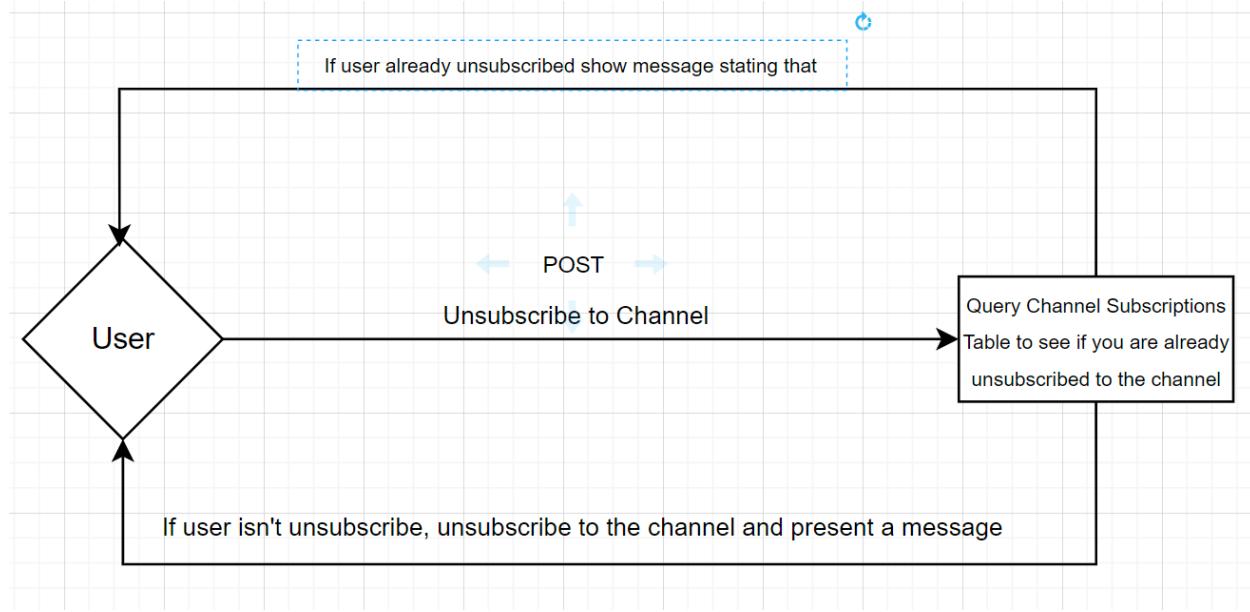
Files are downloaded using PHP's built-in `readfile()` function. On the browser page, each media file is given a download button that points them to the downloading function. Given the filepath, the browser will prompt the user to download the file when the button is pressed.



## User Channels

User channels show all content that is publicly available uploaded by a certain user. Users can also subscribe to and unsubscribe from users when going to their channels. The way these channel pages are generated is using URI requests. The blank slate for every channel is `MeTube_Channel.php` and with the argument `?username=` is passed to it (e.g `MeTube_Channel.php?username=test_user`) a channel is generated using the `generate_channel.php` script. This script queries the `Multimedia_Files` table for content related to the user that has `sharing_mode=public`. It also displays two buttons that query the `Channel_Subscriptions` table allowing the user to do subscribed related stuff. There are two methods for accessing the channels: 1) clicking the channel button on the banner which sets the `username=$_SESSION['username']` if they are logged in, if not it sends the user to the login page or 2) clicking the Find Channels button on the banner which will take the user to a table generated by a `browse_channels.php` script showing all users and a link for their channel which just fills the `?username` argument with the associated username.

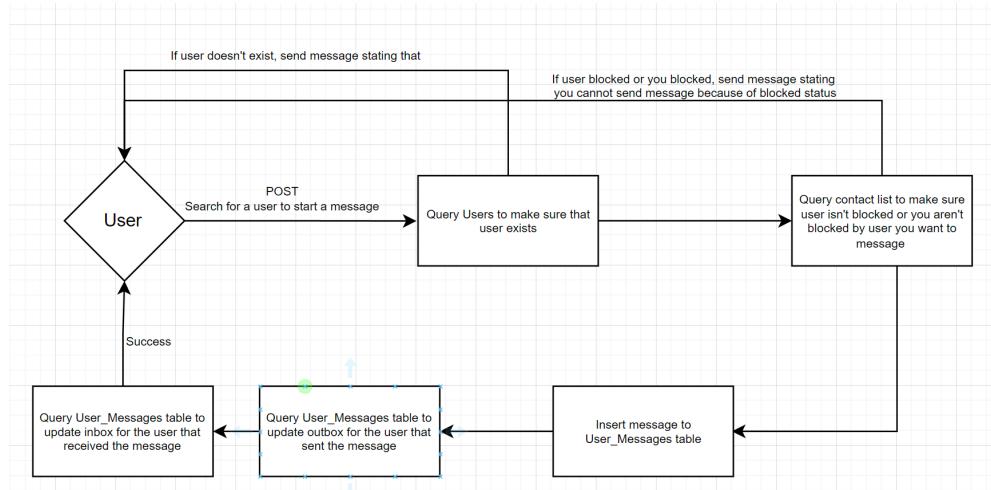


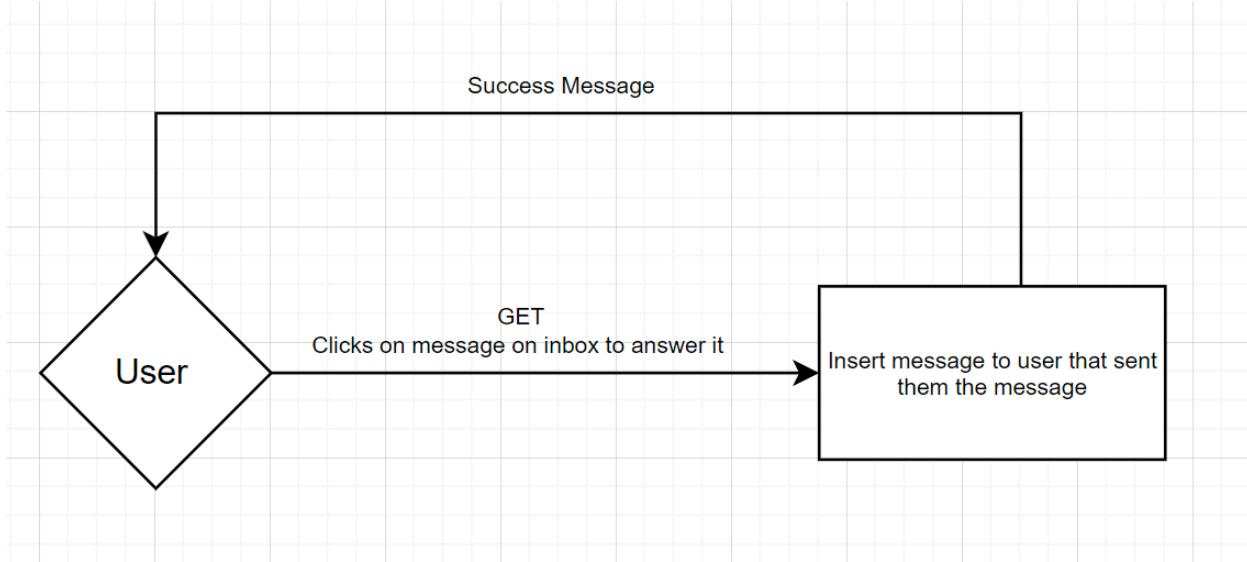


## Sending and Receiving Messages From Other Users

On the Messaging\_Dashboard page, a User can send and receive messages between other logged-in users. All messages are split between the inbox and the outbox. If the current client sends a message, it will be stored in the database and displayed in their personal outbox. Likewise, if the user is receiving a message, then it will also be stored in the database and displayed in the user's inbox.

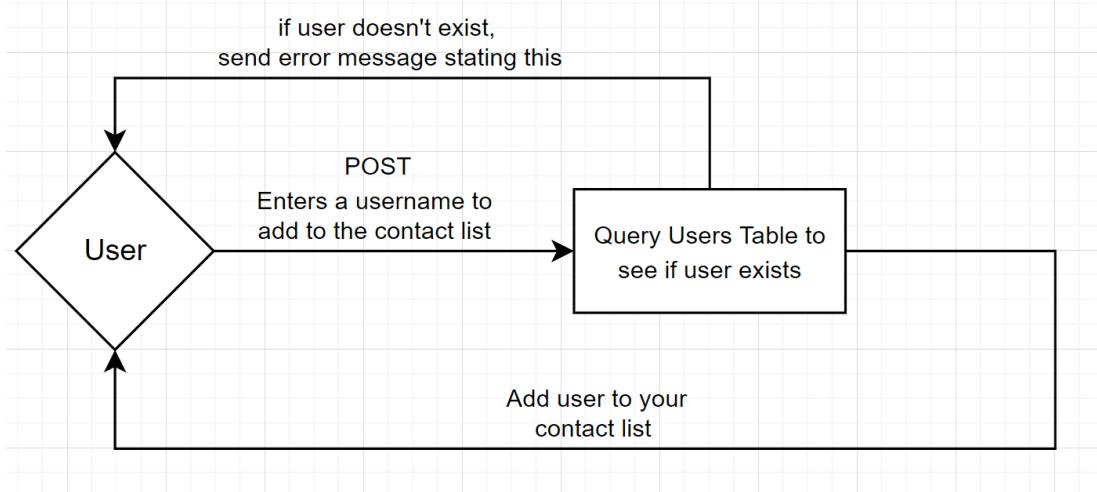
Messages also include a number of metadata. This includes the sender, receiver, the message contents, and the time sent. Messages are sorted in chronological order, but separately between inbox and outbox. A blocked user cannot send nor receive a message from their blocker.

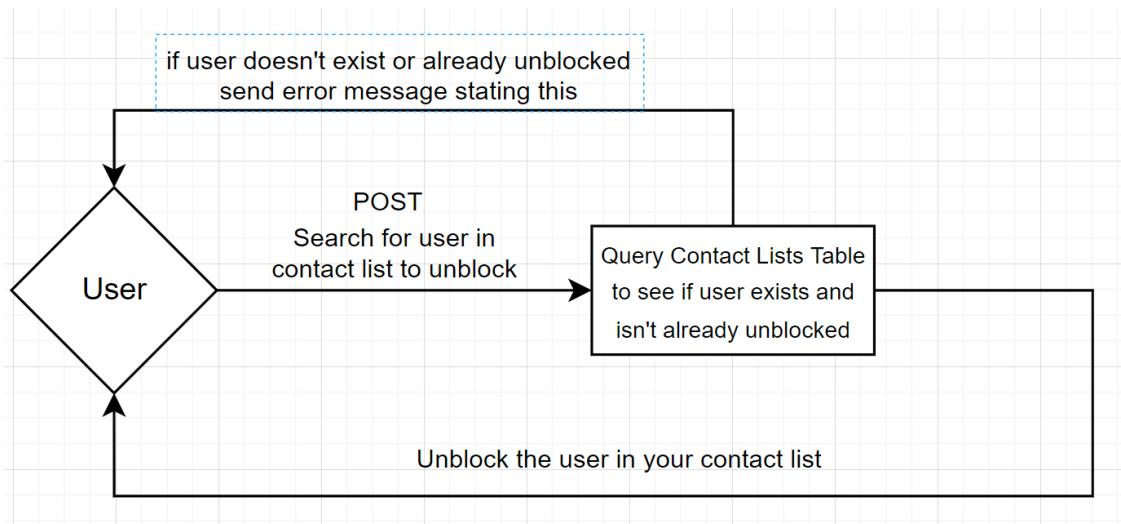
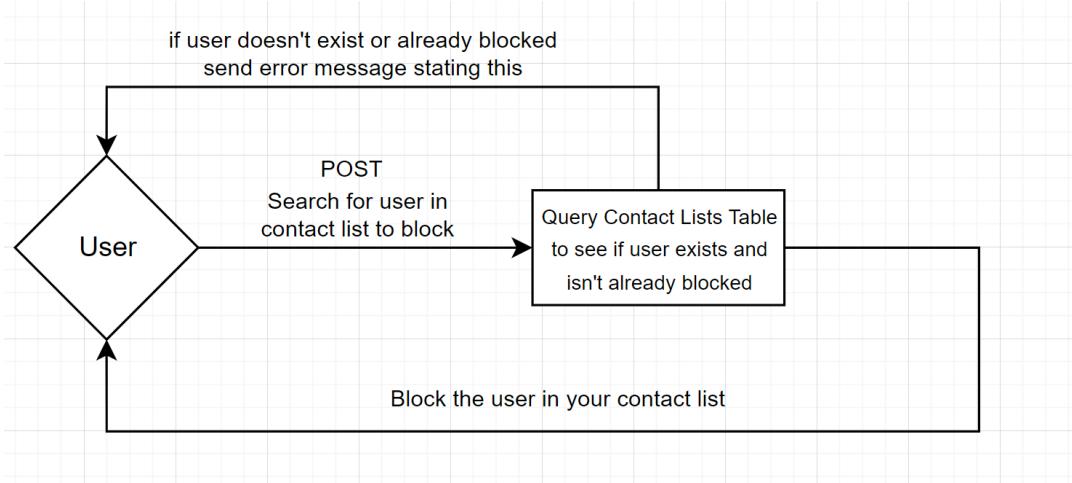




## Adding Users to Contact List

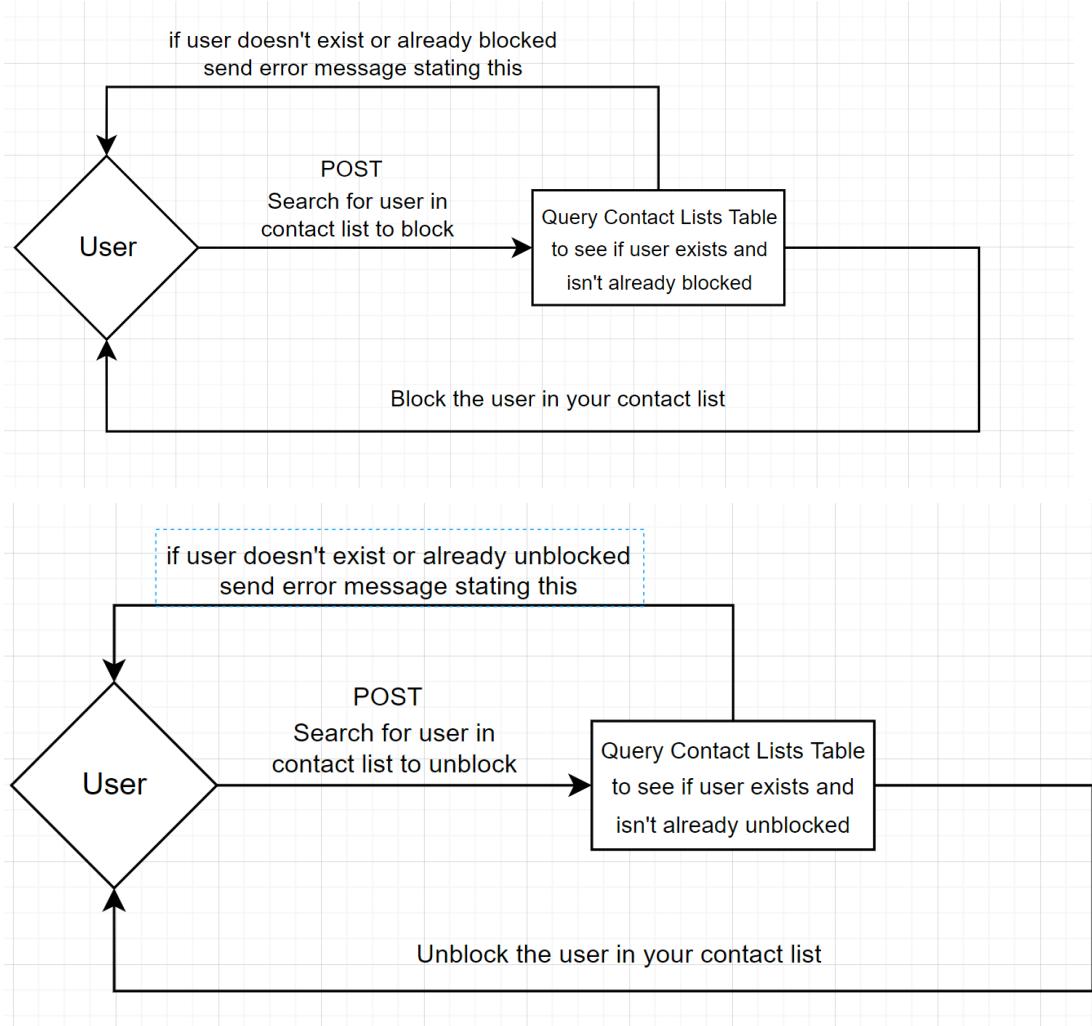
In order for users to message their friends or block other users, they must add them to their contact list. This is done through the MeTube\_AccDets.php page where users can enter someone's user name then a query is performed via a POST action and PHP interacting with the Users table to show available users. From there another drop box appears giving the user an option to add someone to their contacts and assign them into a category, keeping a user's contact list organized. Once the user clicks the 'add to contact list button', an INSERT table query is run via add\_to\_contactlist.php on the Contact\_List table linking the user\_id's. This was so that if a user were to ever change their username, they wouldn't lose their contact list.





## Blocking Users

In order for users' content to **not** be viewed by a particular party and prevent said party from sending messages to them, we implemented a block feature. This block feature works on the id of a user so that if a user were to change their username, they will still be blocked by the person who banned them. In order to block someone, users head over to their account page and type in the name of a user to block. Note: **Users can only block someone on their contact list. They must add them there first!** By typing in their name in the box a PHP Action is computed by the webserver where an entry containing user\_id, contact\_id..., block\_status are updated so that block\_status=Yes.



## Playlists and Favorite List

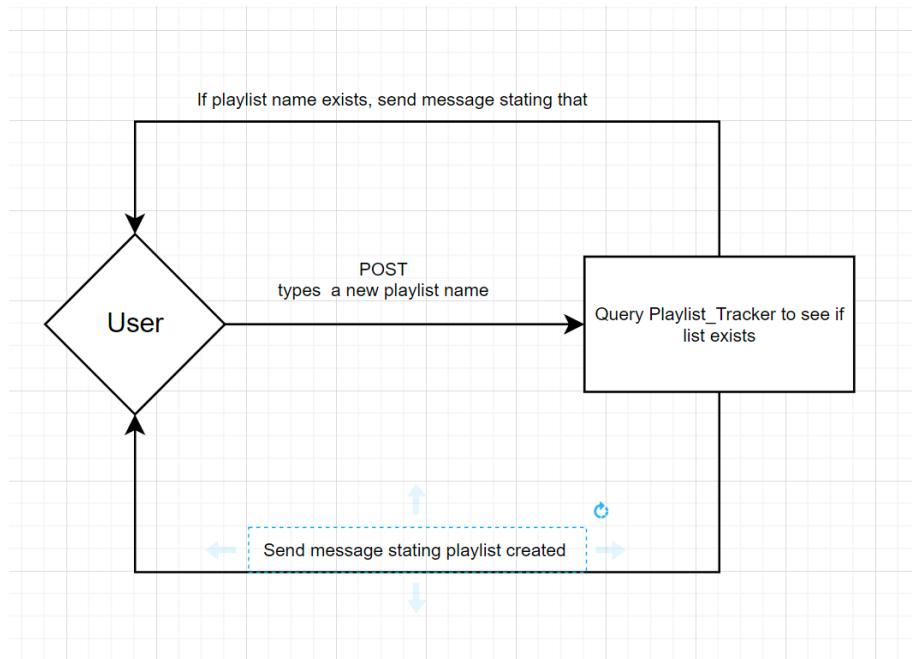
### Playlists

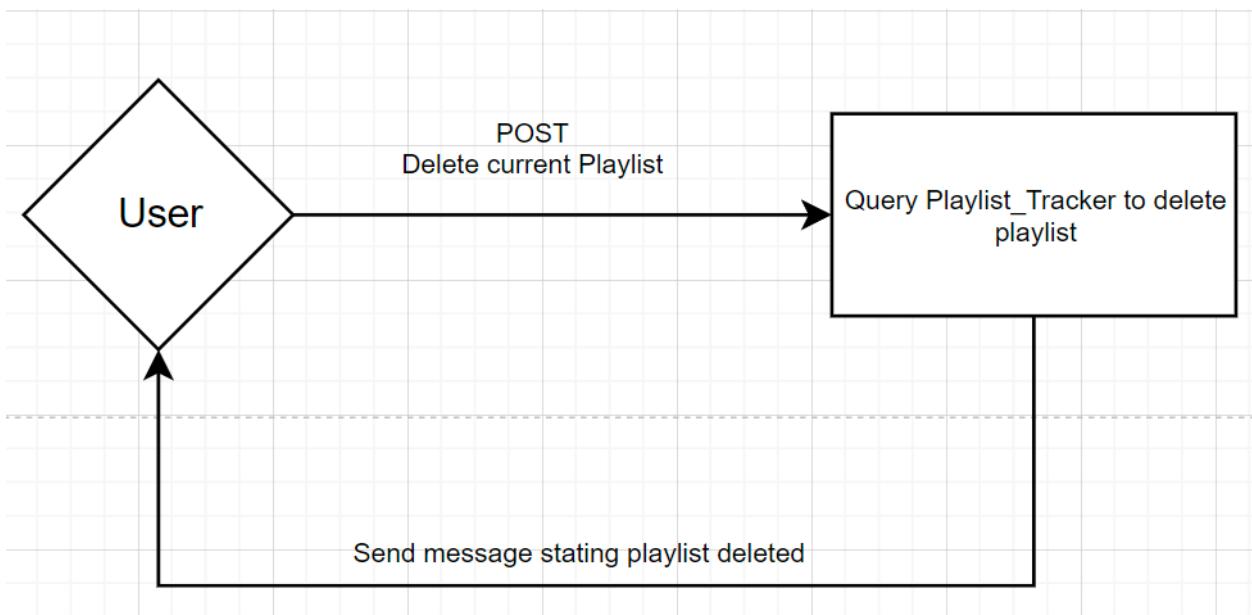
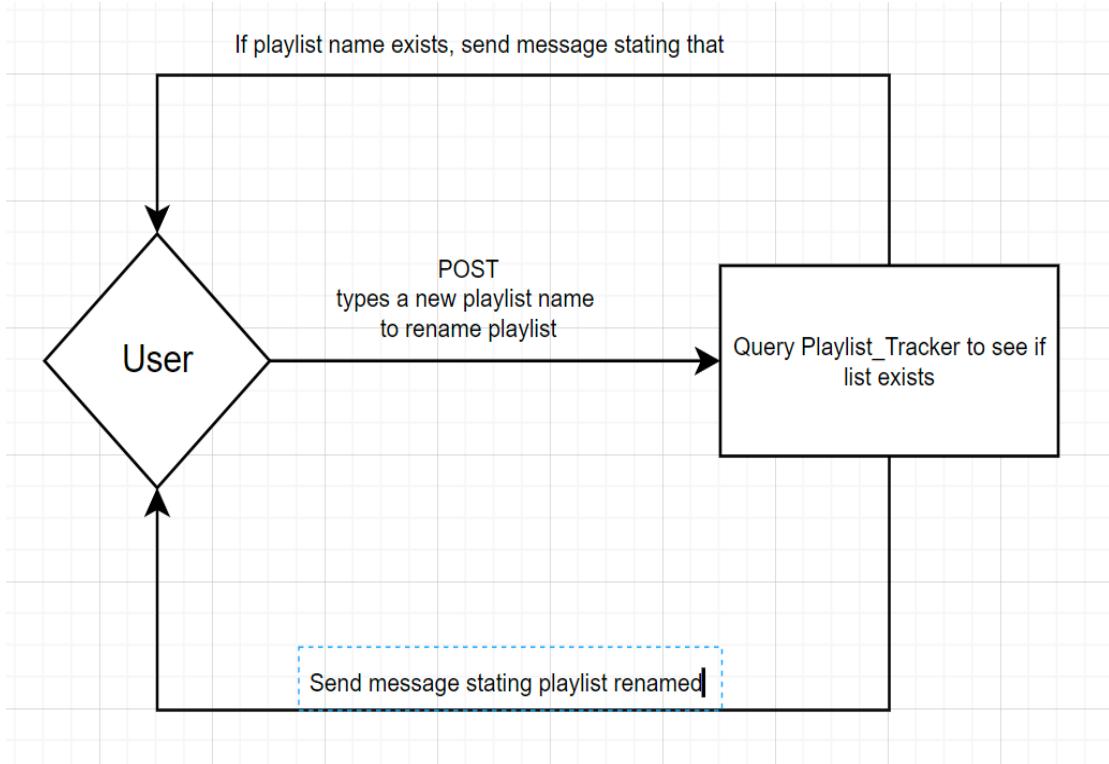
In order to create the playlist functionality we created two tables Playlist\_tracker and File\_Playlists. We created Playlist\_Tracker because a user can have multiple playlists. We first started with the functionality for a user to create a new playlist. The user would input the name of the playlist and through a POST it would send that playlist\_name to a script that would check if there was already a playlist with that name. If not, the playlist would be created. On the same page the user's created playlists would be displayed. A user had the ability to delete the playlist or rename the playlist. If the user pressed the delete playlist button, that form would send the current playlist name and id to a script named delete\_playlists.php through POST. In delete\_playlist.php, a delete mysql command would delete the playlist with the current playlist id assigned to the current logged in user id. If the user typed the new playlist name and then pressed the rename playlist button, that form would send the current playlist name, new playlist name and playlist id to a script named rename\_playlist.php through POST. In that script, a check would be made to see if that new playlist name was found under your created playlists,

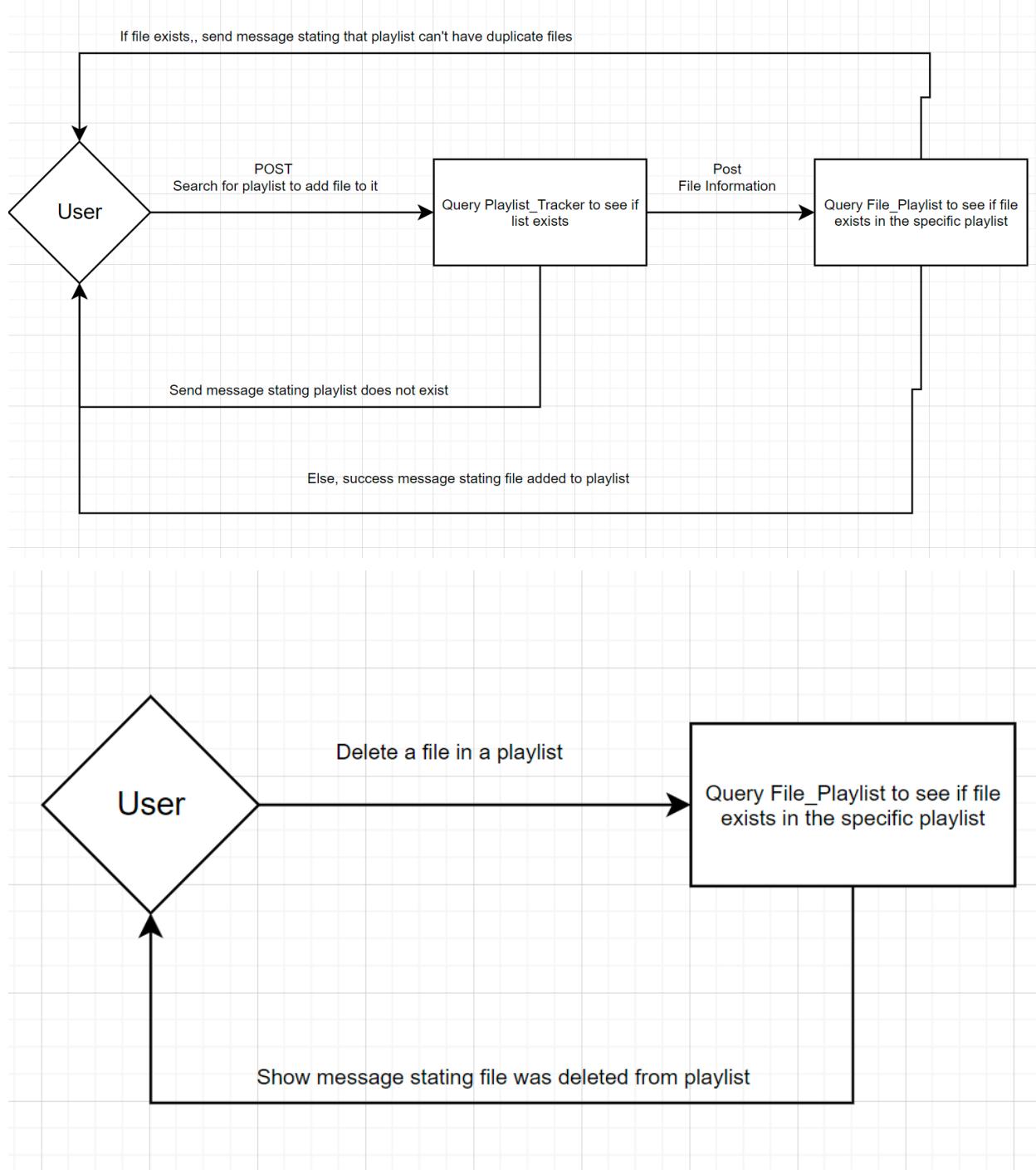
and if found a message would show telling you to please type a unique name because that playlist name is already being used. If not, an update statement would occur to update that playlist's old name to the new name. You could click on a playlist title to access all the videos stored in that playlist. By clicking on the playlist name you would be redirected to a new page with the playlist name being sent there through a GET request. In that playlist all the videos added to that playlist would be there.

In order to add a file to the playlist you would need to be in the browse page and by each file there is a bar that would ask you to search for a playlist to add the file to. I would send the play\_list name, and file\_id through POST once the user clicks on the submit button to a script called add\_file\_to\_playlist.php. In this script I would query the Playlist\_tracker to get the playlist id and then I would check to see if the file wasn't already in the playlist. Then I would add the file to the playlist in the File\_Playlist table using an insert statement.

You could click on a playlist title to access all the videos stored in that playlist. By clicking on the playlist name you would be redirected to a new page with the playlist name being sent there through a GET request. In that playlist all the videos added to that playlist would be there. You can delete a file from the playlist by clicking on the delete button next to the file. By clicking the delete button you would send the playlist\_id and file\_id to a script called delete\_playlist\_file.php where it would delete the file from the File\_Playlist Table.



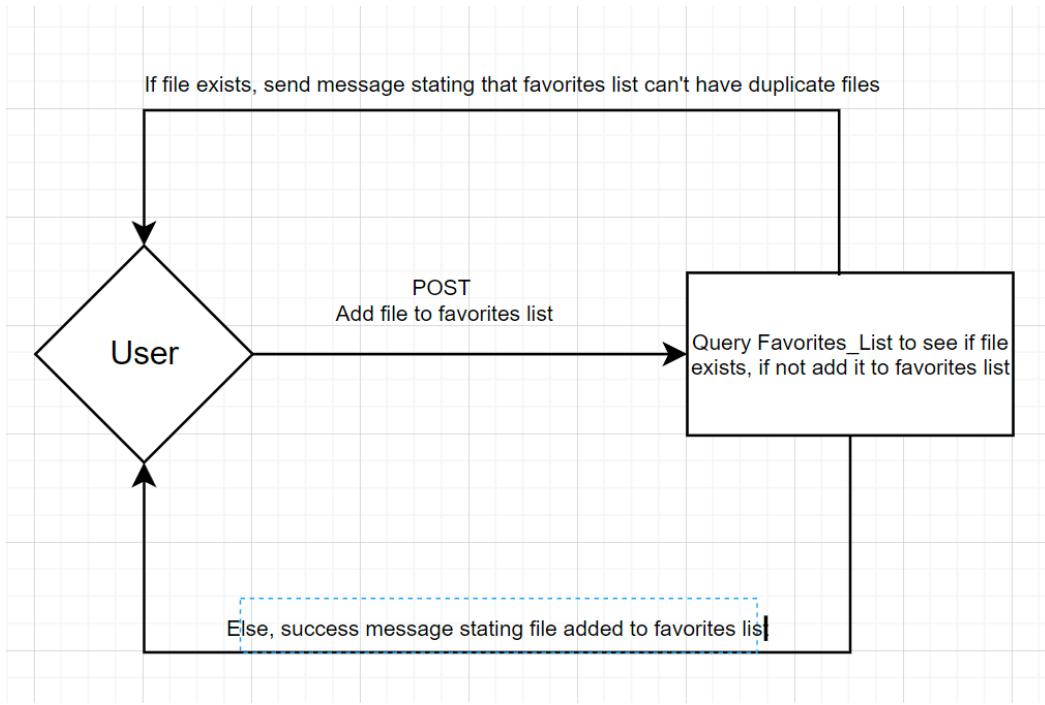




### Favorites List

Your favorites list is located in the account details and it shows all the files you have added to the list. To add a file to your favorites list you would have to be in the browse page and by each file there is a button called Add to Favorites. If you click that button you would send the file\_path, file\_name, file\_id, and extension of that current file to a script called

`add_file_toFavorites.php` using POST. In the script, we first check if there are any duplicate files already in the logged in users favorites list, if not insert into the Favorites List table. In the account details we select all the files in the Favorites List table with the current user's id and display them there.



### Preventing blocked users from viewing blocker's content

For every query that is performed to generate a view of videos, a second query is run against the logged in user's contact list to see if they are banned from viewing another user's media content. This query results are provided to the dynamically created video grid creation PHP function to only view content from unbanned users. This applies to the index.php, MeTube\_Browse.php, MeTube\_Channel.php, and the recommendation section of the MeTube\_Media.php page.

# Test Cases and Testing Results

## User Account

### User Registration

**SUCCESSFUL TEST CASE:** Successful user registration

---

## Sign up

Use the form below to sign up

Email:	test@clemson.edu
Username:	ember
Password:	clemson1
Confirm Password:	clemson1
First Name:	richard
Last Name:	garcia
<input type="button" value="Submit"/>	

Successfully registered user: ember

**UNSUCCESSFUL TEST CASE:** Passwords do not match

# Sign up

Use the form below to sign up

**Email:** test2@clemson.edu

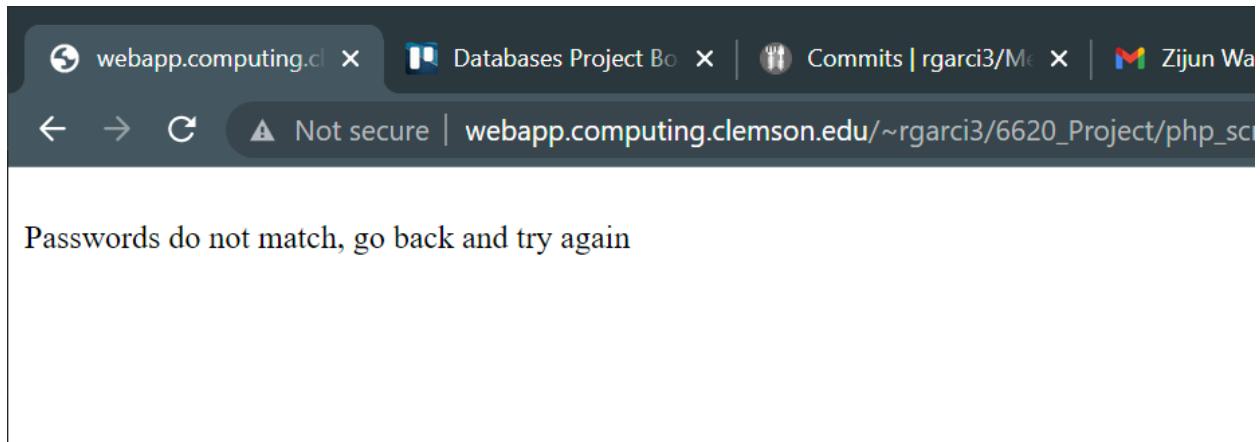
**Username:** ember1

**Password:** clemson2

**Confirm Password:** clemson1

**First Name:** richard

**Last Name:** garcia



**UNSUCCESSFUL TEST CASE:** username already exists

Me Tube

Home Channel Browse Find Channels Upload File

# Sign up

Use the form below to sign up

Email: test2@clemson.edu

Username: ember1

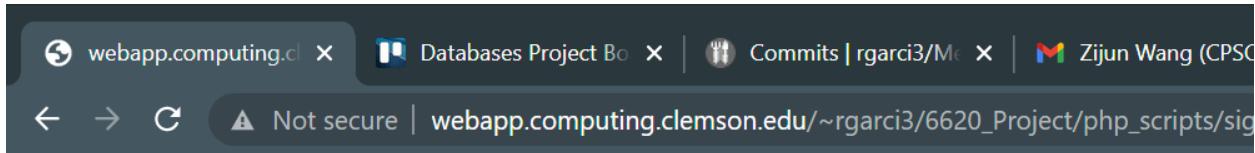
Password: clemson1

Confirm Password: clemson1

First Name: richard

Last Name: garcia

Submit



Username already exists, go back and create a unique username

**UNSUCCESSFUL TEST CASE:** email does not contain @



## Sign up

Use the form below to sign up

**Email:**

**Username:**  ! Please include an '@' in the email address. 'test2clemson.edu' is missing an '@'.

**Password:**

**Confirm Password:**

**First Name:**

**Last Name:**

## Sign-in

**SUCCESSFUL TEST CASE:** signing in successfully redirects you to account details page

## Login

Use the form below to login to your account


Don't have an account? [Sign up for one now](#)

The screenshot shows two adjacent pages from the MeTube application.

**Left Page (Account Details):**

- Header:** MeTube, Home, Channel, Browse, Find Channels, Upload File, Profile Details, Log Out, Sign Up, Login, User icon.
- Section:** Account details
- Text:** First name: richard, Last name: garcia, User name: ember, Password: clemson1, Email: test@clemson.edu
- Link:** Change Account Details?
- Section:** Your Media
- Section:** Your Favorites List

**Right Page (Contact List):**

- Section:** Contact List
- Text:** Search for a user by their user name to add to your contact list:
- Form:** Search for a user (input field) and a Search button.
- Text:** Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)
- Table:**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
------------------	--------------------	-------------------	----------	----------
- Text:** Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)
- Form:** Block a contact user (input field) and a Block button.

**UNSUCCESSFUL TEST CASE:** username does not exist or incorrect password

The screenshot shows the MeTube login page with an unsuccessful login attempt.

**Header:** MeTube, Home, Channel, Browse, Find Channels, Upload File

**Section:** Login

**Text:** Use the form below to login to your account

**Form:**

dfadsf
.....
login

Your user name or password is invalid, go back and try again

Sign-out

**SUCCESSFUL TEST CASE:** logged in user signed out successfully

After clicking Log Out

**UNSUCCESSFUL TEST CASE:** logging out when you aren't signed in

After clicking Log Out

## Profile Update

**SUCCESSFUL TEST CASE:** updating account details (changing username and password)

# Account details

**First name:** richard  
**Last name:** garcia  
**User name:** ember  
**Password:** clemson1  
**Email:** test@clemson.edu

Change Account Details?

**First Name:**   
**Last Name:**   
**Username:**   
**Password:**   
**Confirm Password:**   
**Email:**

successfully updated profile please sign in again to reflect update

**UNSUCCESSFUL TEST CASE:** Username already exists

# Account details

**First name:** Richard  
**Last name:** Garcia  
**User name:** ember2  
**Password:** adf  
**Email:** test@clemson.edu

**First Name:**   
**Last Name:**   
**Username:**   
**Password:**   
**Confirm Password:**   
**Email:**

Username already exists, go back and create a unique username

**UNSUCCESSFUL TEST CASE:** email already exists

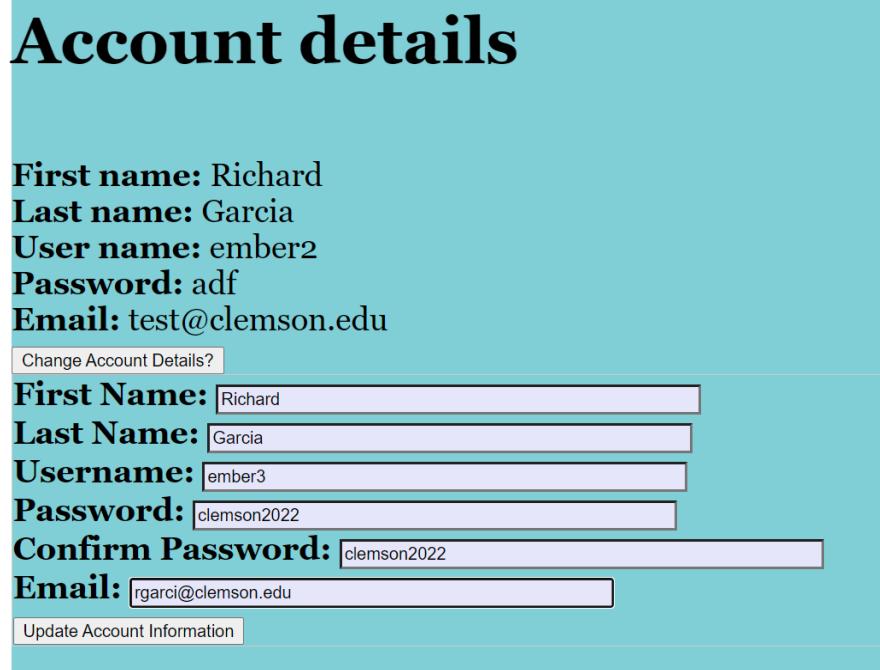
## Account details

**First name:** Richard  
**Last name:** Garcia  
**User name:** ember2  
**Password:** adf  
**Email:** test@clemson.edu

Change Account Details?

**First Name:**   
**Last Name:**   
**Username:**   
**Password:**   
**Confirm Password:**   
**Email:**

Update Account Information



Email already exists, sign in with that email or use a unique email

Contact List (adding, removing, organizing)

**SUCCESSFUL TEST CASE:** adding a user to the contact list and organizing them as friend

## Contact List

**Search for a user by their user name to add to your contact list:**

User found  
 First name: John  
 Last\_name:Lineberger  
 User\_name:jplineb

Pick a category to organize your contact:

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
------------------	--------------------	-------------------	----------	----------

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	No	friend

**SUCCESSFUL TEST CASE:** Removing a user from the contact list

Search for a user by their username to REMOVE them from your contact list:

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
------------------	--------------------	-------------------	----------	----------

**UNSUCCESSFUL TEST CASE:** Adding a user that is already on the contact list

**Search for a user by their user name to add to your contact list:**

User found

First name: John  
Last\_name:Lineberger  
User\_name: jplineb

Pick a category to organize your contact:

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	No	friend

User is already in your contact list, please go back and find a new user

**UNSUCCESSFUL TEST CASE:** Removing a user is not on the contact list

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

**Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)**

**Unblock a contact from your contact list by using their username:**

**Search for a user by their username to REMOVE them from your contact list:**

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
------------------	--------------------	-------------------	----------	----------

**Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)**

**Unblock a contact from your contact list by using their username:**

**Search for a user by their username to REMOVE them from your contact list:**

User not found in your contact list, please try again

## Contact List Blocking and Unblocking

**SUCCESSFUL TEST CASE:** Blocking a user on your contact list

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	No	friend

**Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)**

**Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)**

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	Yes	friend

**Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)**

### SUCCESSFUL TEST CASE: Unblocking a user on your contact list

Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	Yes	friend

Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)

Unblock a contact from your contact list by using their username:

Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	No	friend

Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)

Unblock a contact from your contact list by using their username:

### UNSUCCESSFUL TEST CASE: Blocking a user that is already blocked

Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	Yes	friend

Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)

Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	Yes	friend

Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)

User is already blocked

**UNSUCCESSFUL TEST CASE:** Unblocking a user that is already unblocked

Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	No	friend

Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)

Unblock a contact from your contact list by using their username:

Your contact list (Ordered by Colleague, Family, Favorite, and then Friend)

Contact Username	Contact First Name	Contact Last Name	Blocked?	Category
jplineb	John	Lineberger	No	friend

Block a contact from your contact list by using their username: (By blocking a user they will not be able to access your uploaded files and message you)

Unblock a contact from your contact list by using their username:

User is already unblocked

## Data Sharing

### Upload Multimedia Files

**SUCCESSFUL TEST CASE:** uploading a file successfully

**Upload a multimedia file to MeTube**

You will need to logged in to upload a multimedia file

Files can be at most 2MB

london.jif

Pick a file type to classify the file as:

Pick a category to classify the file as:

Choose a sharing mode for the multimedia file:

File has been uploaded: ../uploaded\_files/london.jfif  
 File Owner: ember2

**UNSUCCESSFUL TEST CASE:** file title conflict (assuming file has already been uploaded with the same name)

**Upload a multimedia file to MeTube**

You will need to logged in to upload a multimedia file

Files can be at most 2MB

Choose File: london.jfif

Pick a file type to classify the file as:

Picture ▾

Pick a category to classify the file as:

Landscapes ▾

Choose a sharing mode for the multimedia file:

Public ▾

England, British

File name already exists, go back and create a unique file name

**UNSUCCESSFUL TEST CASE:** File path already exists

**Upload a multimedia file to MeTube**

You will need to logged in to upload a multimedia file

Files can be at most 2MB

Choose File: london.jfif

Pick a file type to classify the file as:

Picture ▾

Pick a category to classify the file as:

Landscapes ▾

Choose a sharing mode for the multimedia file:

Public ▾

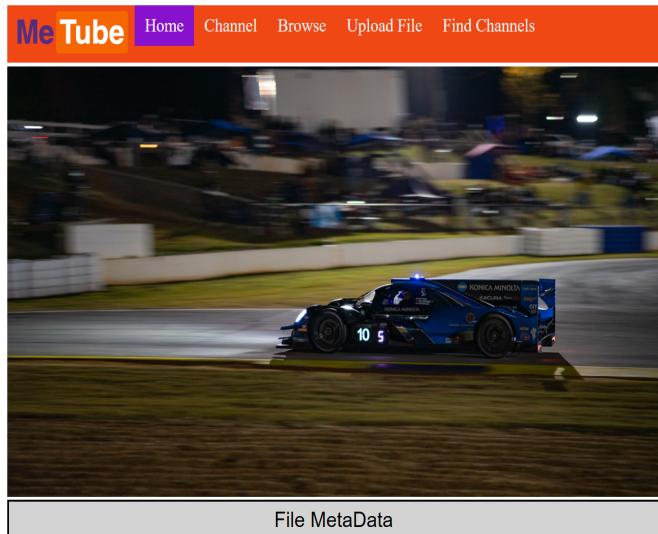
England, British

File path already exists, upload a file with a different name or with a different extension

UNSUCCESSFUL TEST CASE: user is not signed in.  
You will be redirected to the login page.

Web Interface for Meta data of uploaded files such as title, description, keywords, category, etc.

SUCCESSFUL TEST CASE: Showing the file metadata of a specific file



Click on File MetaData

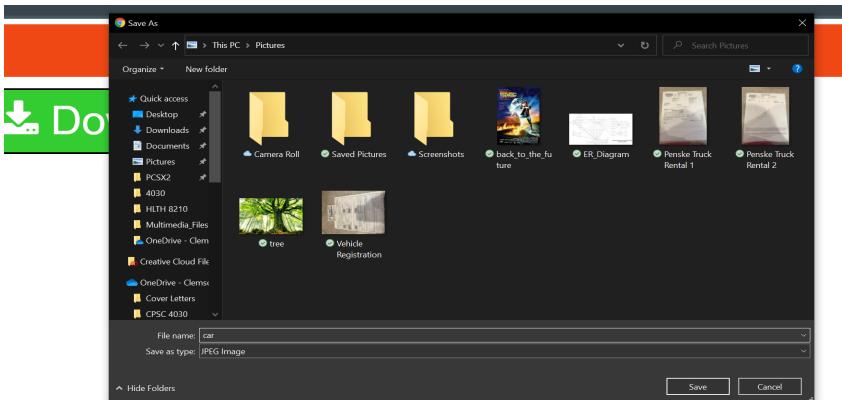


## Download

**SUCCESSFUL TEST CASE:** Download a file



Click download



## View Media Files

SUCCESSFUL TEST CASE: Viewing a picture



 Download

File MetaData

SUCCESSFUL TEST CASE: Viewing a video



 Download

File MetaData

SUCCESSFUL TEST CASE: Listening to audio

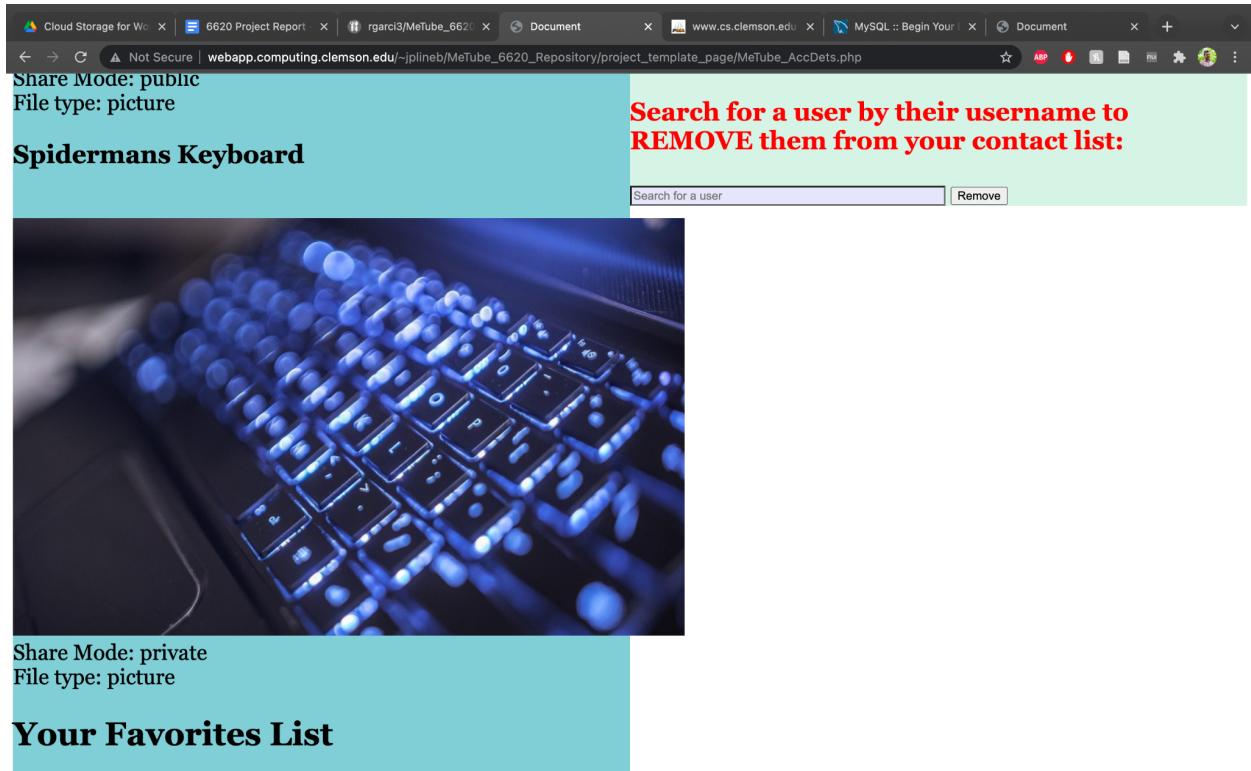
**Me Tube** Home Channel Browse Upload File Find Channels



 Download

## Sharing Mode

SUCCESSFUL CASE: spiderman uploads a 'private' file of his keyboard. It's viewable to him on his account



However jplineb can't see it when he looks for it on the public browser

File size:

0 MB  2 MB

Maximum Media Size: 2

How to sort the files:

How to sort the files:

Showing results for the category:

**Debug!**

```

Search string used: keyboard
category used: all
file_type used: all
max size wanted: 2Array ([o] => Array ([o] => keyboard ))
Start of get_videos statement: SELECT file_path, file_title, id FROM Multimedia_Files WHERE size <= 2 AND sharing_mode='public' AND file_owner NOT IN ('ember1') AND
Word for searching: keyboard
get_videos has been updated to: SELECT file_path, file_title, id FROM Multimedia_Files WHERE size <= 2 AND sharing_mode='public' AND file_owner NOT IN ('ember1') AND (file_title RLIKE 'keyboard' OR keywords RLIKE 'keyboard' OR description RLIKE 'keyboard')
Final SQL Statement: SELECT file_path, file_title, id FROM Multimedia_Files WHERE size <= 2 AND sharing_mode='public' AND file_owner NOT IN ('ember1') AND (file_title RLIKE 'keyboard' OR keywords RLIKE 'keyboard' OR description RLIKE 'keyboard') ORDER BY file_title ASC

```

**No videos found**

Or on spiderman's channel

**Me Tube** Home Channel Browse Find Channels Upload File

## Welcome to spiderman 's channel

Not subscribed

[Subscribe](#)

[Unsubscribe](#)

### Baby driver Poster



[Go to media page](#)

## Blocking

## Media Organization

### Browse by Category

**SUCCESSFUL TEST CASE:** Browser by the category landscapes

Search by a keyword, file name, or des

Search by category:

Search by file type:

File size:

0 MB  2 MB

Maximum Media Size: 2

How to sort the files:

How to sort the files:

Click search and here are the search results

Search string used:  
 category used: landscapes  
 file\_type used: all  
 max size wanted: 2  
 Final SQL Statement: SELECT file\_path, file\_title, id FROM Multimedia\_Files WHERE size <= 2 AND sharing\_m

### **London Street**

This is the file of interest: ../uploaded\_files/london.jpg This is the file id: 26

[Add to favorites](#)

Search for one of your created playlists to add this file to it:



[Go to media page](#)

### **New York**

**UNSUCCESSFUL TEST CASE:** browser by a category that doesn't have any files

Search by a keyword, file name, or descr

Search by category:

Search by file type:

File size:

0 MB

Maximum Media Size: 2

How to sort the files:

How to sort the files:

Click search

Search string used:  
category used: pets  
file\_type used: all  
max size wanted: 2

Final SQL Statement: SELECT file\_

## No videos found

### Channel

**SUCCESSFUL TEST CASE:** Access your channel, assuming you have uploaded at least one file



Welcome to ember2 's channel  
Not subscribed

[Subscribe](#)

[Unsubscribe](#)

London Street



**UNSUCCESSFUL TEST CASE:** Access your channel, assuming you have not uploaded any files



Either no user named ember2 found or ember2 has no files uploaded therefore this is not a channel!

**SUCCESSFUL TEST CASE:** Subscribe to a channel

# Welcome to bilbo 's channel

## Not subscribed

[Subscribe](#)

[Unsubscribe](#)

## iphone

Click on subscribe

---

You have subscribed to this channel, please go back

# Welcome to bilbo 's channel

## Subscribed

[Subscribe](#)

[Unsubscribe](#)

## iphone

**SUCCESSFUL TEST CASE:** Unsubscribe from a channel

## Welcome to bilbo 's channel

### Subscribed

[Subscribe](#)

[Unsubscribe](#)

**iphone**

Click on unsubscribe

You have unsubscribed to this channel, please go back

## Welcome to bilbo 's channel

### Not subscribed

[Subscribe](#)

[Unsubscribe](#)

• •

**UNSUCCESSFUL TEST CASE:** Unsubscribe from a channel you aren't subscribed to.

## Welcome to bilbo 's channel

### Not subscribed

[Subscribe](#)

[Unsubscribe](#)

• •

Click unsubscribe

Already unsubscribed to this channel, please go back

**UNSUCCESSFUL TEST CASE:** Subscribe to a channel you are already subscribed to

# Welcome to bilbo 's channel

## Subscribed

[Subscribe](#)

[Unsubscribe](#)

### iphone

Click subscribe

Already subscribed to this channel, please go back

### Playlists

**SUCCESSFUL TEST CASE:** Create a new playlist

Create a new playlist by giving it a name:  [Create](#)

Click create

### Your Created Playlists

Click on the playlist name to access the files in that playlist

If you want to rename your playlist, type a new name below the respective playlist

#### [playlist tester](#)

[Delete Playlist](#)

[Rename](#)

**UNSUCCESSFUL TEST CASE:** Create a new playlist with a name that isn't unique

Create a new playlist by giving it a name:

## Your Created Playlists

**Click on the playlist name to access the files in that playlist**

**If you want to rename your playlist, type a new name below the respective playlist**

[playlist tester](#)

Click create

Create a new playlist by giving it a name:

A playlist with this name already exists, enter a unique name or rename that specific playlist

## Your Created Playlists

**Click on the playlist name to access the files in that playlist**

**If you want to rename your playlist, type a new name below the respective playlist**

[playlist tester](#)

## SUCCESSFUL TEST CASE: Rename a playlist

### Your Created Playlists

**Click on the playlist name to access the files in that playlist**

**If you want to rename your playlist, type a new name below the respective playlist**

[playlist tester](#)

Click rename

## Your Created Playlists

**Click on the playlist name to access the files in that playlist**

**If you want to rename your playlist, type a new name below the respective playlist**

[playlist tester 2](#)

## UNSUCCESSFUL TEST CASE: Rename a playlist with a name that already exists

## Your Created Playlists

**Click on the playlist name to access the files in that playlist**

**If you want to rename your playlist, type a new name below the respective playlist**

### [playlist tester 2](#)

[Delete Playlist](#)

[movies](#)

[Rename](#)

### [movies](#)

[Delete Playlist](#)

[Rename your playlist](#)

[Rename](#)

Click rename on playlist tester 2

You already have a playlist with this name, enter a unique name

**SUCCESSFUL TEST CASE:** Add a file to a playlist (movies playlist exist)

### **back to the future**

This is the file of interest: ..../uploaded\_files/back\_to\_the\_future.jpg

This is the file id: 2

[Add to favorites](#)

Search for one of your created playlists to add this file to it: [movies](#) [Add to Playlist](#)



Click add to playlist

Playlist found

Video added to playlist

**UNSUCCESSFUL TEST CASE:** Add a file to a playlist that doesn't exist

### back to the future

This is the file of interest: ../uploaded\_files/back\_to\_the\_future.jpg

This is the file id: 2

[Add to favorites](#)



Click add to playlist

Playlist not found, please try again

**SUCCESSFUL TEST CASE:** Delete a file in a playlist

### Playlist: movies

### back to the future



Click delete from playlist

Video removed successfully, please go back to see your playlist

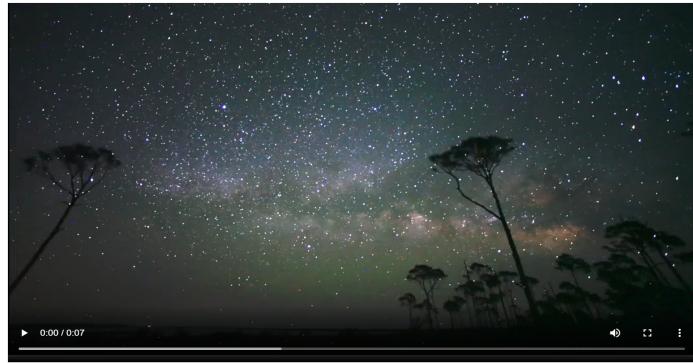
## Favorites List

**SUCCESSFUL TEST CASE:** Add a file to your favorites list

**TestVideo**

This is the file of interest: [http://webapp.computing.clemson.edu/~sethi/MeTube\\_6620\\_Repository/uploaded\\_file\\_id\\_4](http://webapp.computing.clemson.edu/~sethi/MeTube_6620_Repository/uploaded_file_id_4)

Search for one of your created playlists to add this file to it:



Click on add to favorites

Success message

Go to account details

## Your Favorites List

### Dog running



### TestVideo

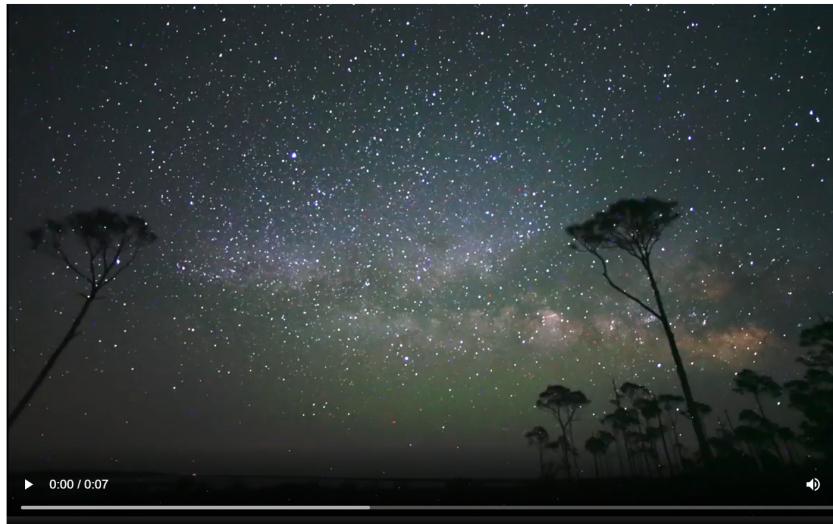


**UNSUCCESSFUL TEST CASE:** Adding duplicate files to your favorites list (assume this file is already in your favorites list)

## TestVideo

This is the file of interest: [http://webapp.computing.clemson.edu/~sethi/MeTube\\_6](http://webapp.computing.clemson.edu/~sethi/MeTube_6)  
This is the file id: 4

Search for one of your created playlists to add this file to it:



Click Add to Favorites

You already have this file stored in your favorites list

## Most Viewed

**SUCCESSFUL TEST CASE:** View most viewed media on the home screen, whether you are logged in or not

## Most Viewed Media:

---

### Cat Video

Creator: test\_user

View Count: 10



---

### 911 RSR

Creator: jplineb

View Count: 6



## Most Recently Uploaded

**SUCCESSFUL\_TEST CASE:** See most recently uploaded on the home screen, whether you are logged in or not



## Ordering Media Files in Different Ways

SUCCESSFUL TEST CASE: Order media files by size in ascending order in the browse page

How to sort the files:

How to sort the files:

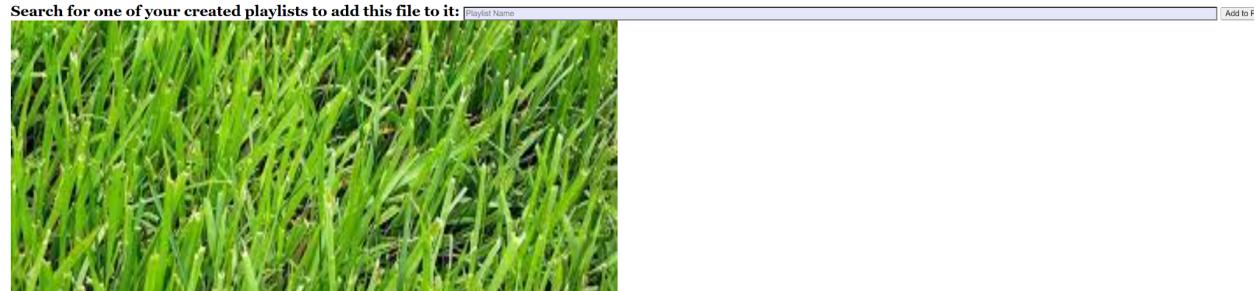
Click Search

Search string used:  
 category used: all  
 file\_type used: all  
 max size wanted: 2  
 Final SQL Statement: SELECT file\_path, file\_title, id FROM Multimedia\_Files WHERE size <= 2 AND sharing\_mode='public' ORDER BY view\_count ASC

### grassy

This is the file of interest: ../uploaded\_files/grass.jpg This is the file id: 24

[Add to favorites](#)



## User Interaction

### Messaging Exchange between Users

**SUCCESSFUL TEST CASE:** start a message to an unblocked user and show it on the outbox

Start a new message by finding a user to message:  Search batman found  
 Message to user [Hello batman](#)

Click Send

Check your outbox

Outbox		
Showing most recently sent messages		
To	Message	Time Sent
batman	Hello batman	2021-11-23 22:37:23

**SUCCESSFUL TEST CASE:** see a received message on the inbox.

Inbox		
Showing most recently received messages		
Click on the message to answer it		
From	Message	Time Sent
batman	<a href="#">Hello Ember</a>	2021-11-23 22:38:24

**SUCCESSFUL TEST CASE:** click on a inbox message to reply to that message

Click on Hello Ember message when logged in as ember1 (you can see the picture above)

**batman:** Hello Ember  
Sent at : 2021-11-23 22:38:24

**Message to user**

Go back to messaging dashboard once you have replied

Click send

batman: Hello Ember  
Sent at : 2021-11-23 22:38:24

Message to user    
Go back to messaging dashboard once you have replied

how are you? ember1  
Sent at : 2021-11-23 22:43:45

**UNSUCCESSFUL TEST CASE:** Message a user you have blocked, you have blocked jplineb

Start a new message by finding a user to message:   jplineb found  
Message to user

Click send

You can not send a message to this user, You have blocked them or they have blocked you. Please return to your messages

**UNSUCCESSFUL TEST CASE:** Message a user that has blocked you (you are logged in as jplineb)

Start a new message by finding a user to message:   ember1 found  
Message to user

Click send

You can not send a message to this user, You have blocked them or they have blocked you. Please return to your messages

Commenting on Media File

**SUCCESSFUL TEST CASE:** Commenting on a media file in their media page and presenting in hierarchical manner

**File Metadata**

Hello I am testing



**Submit**

---

Click submit

jplineb: I love this movie

Add a Reply!

batman: i doo too!

Add a Reply!

jplineb: This movie is great!

Add a Reply!

bilbo: great film

Add a Reply!

spiderman: Do root comments work here?

Add a Reply!

bilbo: okkk

Add a Reply!

batman: I am JUSTICE

Add a Reply!

ember1: hello

Add a Reply!

ember1: Hello testing

Add a Reply!

ember1: Hello I am testing

Add a Reply!

SUCCESSFUL TEST CASE: Commenting on a comment and presenting it in a hierarchical manner. The comment will show as comment level - 2 when I respond to it

batman: nice car (Comment-Level: 1)

I know right

Reply

Click reply

batman: nice car (Comment-Level: 1)

Add a Reply!

Reply

ember1: I know right (Comment-Level: 2)

Add a Reply!

Reply

Comment now shows as comment-level 2 meaning it is a reply to comment level 1.

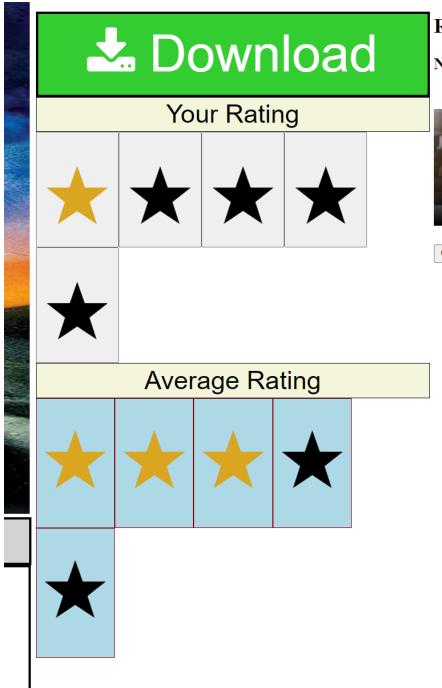
No unsuccessful test cases

## Media Rating

**SUCCESSFUL TEST CASE:** Add a rating to a media file

Add a 1 star rating

See average rating change based on your new rating



No unsuccess test cases for this

## Search

### Keywords-based search

**SUCCESSFUL TEST CASE:** Search by keyword car

Search by a keyword, file name, or description:   
 Search by category:   
 Search by file type:

File size:

0 MB  2 MB

Maximum Media Size: 2

How to sort the files:

How to sort the files:

Click Search

Showing results for the category:

## Debug!

```
Search string used: car
category used: all
file_type used: all
max size wanted: 2
Array ( [0] => Array ( [0] => car ) )
Start of get_videos statement: SELECT file_path, file_title, id FROM Multimedia_Files WHERE size <= 2 AND sha
Word for searching: car
get_videos has been updated to: SELECT file_path, file_title, id FROM Multimedia_Files WHERE size <= 2 AND s
Final SQL Statement: SELECT file_path, file_title, id FROM Multimedia_Files WHERE size <= 2 AND sharing_mc
file_title ASC
```

## 911 RSR

This is the file of interest: ../uploaded\_files/911-compressed.jpg This is the file id: 21

[Add to favorites](#)

Search for one of your created playlists to add this file to it:



## UNSUCCESSFUL TEST CASE: keyword does not exist

Search by a keyword, file name, or description:  food

Search by category:

Search by file type:

File size:

0 MB  2 MB

Maximum Media Size: 2

How to sort the files:

How to sort the files:

Click search

Search string used: food  
 category used: all  
 file\_type used: all  
 max size wanted: 2Array ( [o] => Array ( [o] =  
 Start of get\_videos statement: SELECT file\_p:  
 Word for searching: food  
 get\_videos has been updated to: SELECT file\_  
 Final SQL Statement: SELECT file\_path, file\_  
 file\_title ASC

## No videos found

**UNSUCCESSFUL TEST CASE:** Search by a space instead of a keyword

Search by a keyword, file name, or description:

Search by category:

Search by file type:

File size:

0 MB  2 MB

Maximum Media Size: 2

How to sort the files:

How to sort the files:

Click Search

## No videos found

### Media Recommendation

**SUCCESSFUL TEST CASE:** Show recommended media when you are in the media page of a file. The media file is recommended because the file of the media page and the recommended file are part of the same category.

**STEVEN SPIELBERG Presents**  
**BACK TO THE FUTURE**  
A ROBERT ZEMECKIS Film

He was never in time  
for his classes...  
for his friends...  
for his dinner...  
Then one day...  
he was in his  
time at all.

"BACK TO THE FUTURE" — MICHAEL J. FOX  
CHRISTOPHER LLOYD • LEA THOMPSON • CRISPIN GLOVER  
— ALAN SILVESTRI • BOB GALE • NEIL CANTON  
STEVEN SPIELBERG • KATHLEEN KENNEDY • RANDY MARSHALL  
© 1985 UNIVERSAL PICTURES

File Metadata

Add a Comment!

Recommended Files  
Name of vid: Cat Video

Download

Your Rating

Average Rating

Go to media page

No unsuccessful test cases

## Feature-based Media Search

**SUCCESSFUL TEST CASE:** Search by File type (in our case audio)

Search by file type:

File size:

0 MB  2 MB

Maximum Media Size: 2

How to sort the files:

How to sort the files:

Click search

Search string used:  
 category used: all  
 file\_type used: audio  
 max size wanted: 2  
 Final SQL Statement: SELECT file\_path, file\_title, id FROM Multimedia\_Files WHERE size <=

### The Great Secret Trial

This is the file of interest: [http://webapp.computing.clemson.edu/~sethi/MeTube\\_6620\\_Repo](http://webapp.computing.clemson.edu/~sethi/MeTube_6620_Repo)

Search for one of your created playlists to add this file to it:

**SUCCESSFUL TEST CASE:** Search by file size (in this case anything below 1Z MB)

File size:

0 MB  2 MB

Maximum Media Size: 1

How to sort the files:

How to sort the files:

Click search

Search string used:  
 category used: all  
 file\_type used: all  
 max size wanted: 1  
 Final SQL Statement: SELECT file\_path, file\_title, id FROM Multimedia\_Files WHERE size <= 1 AND

### back to the future

This is the file of interest: [../uploaded\\_files/back\\_to\\_the\\_future.jpg](#) This is the file id: 2



# User Manual

## User Account

### User Registration

In order to create a new account you will need to click on the sign up button on the top right corner of the screen. You will need an account to upload videos, access your channel, message users, and manage your contacts list. After clicking on the sign up button you will be greeted with a form in which you will enter your information to sign up. You will enter this information in the following order: your email address, your username, your password and you will need to enter it again to confirm the password, your first name, and your last name. When you click on the submit button and successfully create your account you will be redirected to your account details page that shows your account information, uploaded videos, favorites list, and contacts list.

### Sign-in

To sign into your account you will click on the Login button on the top right corner of the screen. You will be directed to a form where you will be asked to enter your username and password. You can also click a link on the bottom of the form to be redirected to the sign up page if you do not have an account. Once you click on the login button you will be redirected to your account details page.

### Sign-out

To sign out of your account you will need to click on the Log Out button on the top right of the navigation bar. This will log you out immediately and redirect you to the homepage of MeTube.

### Profile Update

Assuming you are logged in and not on the account details page, in order to update your profile you will need to click on the Profile Details button on the top right of the navigation bar. You will then be presented with two columns, the first column with a blue background is your account details and videos information. The top of that column says Account Details and under that heading you are presented with all your account information, which includes first name, last name, user name, password and email. If you would like to change your account information you will need to press on the button that says “Change Account Details?” underneath your current account information. Click on that button and you will be shown a form where you will be entering your updated information on all your account information which includes first name, last name, user name, password and email. You then click on the button “Update Account Information” to update your information. If you enter a username or email address that already exists you will be directed to enter unique text for those fields. Once you have successfully updated your information you will be presented with a page that states your account information

has been updated successfully and to go back to the previous page sign out and then sign in again with the updated information so your account details page is updated.

## Contact List (including organization and blocking a user)

Assuming you are logged in and not on the account details page, in order to access your contacts list you will need to click on the Profile Details button on the top right of the navigation bar. Once you are at that page, the right column of the page with the light green background is dedicated to your contact list.

If you would like to add a new user to your contact list you will search for a user by their username at the top of the column. When you input a username and click the button “Search” and if the user is found, you will be presented with the user’s first name, last name, and their username. If the user isn’t found, you will be asked to search again for a user. You will then be asked to choose a category to organize your contact as. The categories are Colleague, Family, Favorite, and Friend. You will then click on “Add to contact list” to add the user to the contact list. You will be shown a page with a successful message and then be immediately redirected to the account details page where you will now see your contact list table on the right column. The table is ordered by colleague, family, favorite, and friend in that order and shows the username, first name, blocked status, and category for that contact.

If you would like to block a contact you can do so underneath the contact list table. You will just need to search for a contact user by their username and then click on the button named “Block”. You will see a success message if the contact was blocked successfully and the page will automatically refresh so your contact list table reflects those changes.

If you would like to unblock a contact you can do so underneath the block user input text. You will just need to search for a contact user by their username and then click on the button named “Unblock”. You will see a success message if the contact was unblocked successfully and the page will automatically refresh so your contact list table reflects those changes.

If you would like to remove a user from your contact list you can do so under the unblock user input text. You will need to search for the contact user by their username and then click on the button named “Remove”. You will then see a success message if a user is found in your contact list and is removed and the page will automatically refresh so your contact list table reflects those changes.

**IN ORDER TO BLOCK ANY USER THEY HAVE TO BE IN THE CONTACT LIST IN ORDER TO BLOCK THEM.**

## Data Sharing

### Upload Multimedia Files

To upload a multimedia file you need to be logged in to your account. Once you are logged in, you will need to press on the button “Upload File” on the navigation bar on the top of the screen. This will direct you to a page where you can upload a multimedia file.

In order to successfully upload a multimedia file your file has to have a maximum size of 2 MB any file over 2 MB will not be uploaded (this is due to constraints with the Clemson web server we are using for this project).

Once you have chosen a file to upload from your computer and clicked on the chosen file button to upload it you will then give your file a name, a description, classify the file as a video, audio, or picture file, assign the file a category out of the choices movies, nature, video games, landscapes, science, or pets, choose a sharing mode for the video, whether it be public, private, or contacts only, and finally keywords for the file. These keywords should have a comma between each other. When you click on Upload File you will be presented with a page that says file has been uploaded, you can then go back to the previous page.

Web Interface for Meta data of uploaded files such as title, description, keywords, category, etc.

You can see the metadata of an uploaded file by first clicking on the Browse page of MeTube, located on the navigation bar on the top. Once you are in the Browse page and can see the uploaded files underneath each file is a button which says “Go to media page” for the specific media file. Once you click on that for a file you will be presented with a new page that shows the media file and underneath is a button called File MetaData. Click on this button and it will expand to show the metadata of the file which includes, title, owner, view count, file type, category, keywords, upload date, and file size (in MB).

### Download

You can see the metadata of an uploaded file by first clicking on the Browse page of MeTube, located on the navigation bar on the top. Once you are in the Browse page and can see the uploaded files underneath each file is a button which says “Go to media page” for the specific media file. Once you click on that for a file you will be presented with a new page that shows the media file and to the right of a file is a button in green that says “Download.” Click on this button to download the media file.

### View Media Files

You can view a media file in different ways. The first way is through the Browse screen which can be found in the navigation bar on the top of the screen. Once you are in the browse screen all the uploaded files are located there at the bottom of the screen and you can view videos,

audio, and pictures from there. You can also click on each file's media page to view the file from there as well. Your Account Details page which can be accessed from the navigation bar will show your uploaded files and favorites where you can view the files. Your channel page, which can be accessed from the navigation bar, also shows your uploaded media files. You can also access your playlists page from the playlist button, located at the home page at top right, and then click on a specific playlist title to view the files that have been added to that specific playlist.

## Sharing Mode

You can add the sharing type of a file when you are uploading the file to MeTube. On that form you will be asked to pick a sharing mode for that file and you will choose from public, private, or contacts only.

## Media Organization

### Browse by Category

In order to search for media based on category please go to the Browse page which can be accessed from the navigation bar on the top. The browse page presents all the uploaded files in a list. At the top is a drop down next to "Search by category:" where you can pick any of the following categories to search for, all categories, movies, video games, nature, science, landscapes, and pets. Once you choose a category, click on the Search button right before the file results and you will be greeted with new search results.

### Channel

Once you are logged in and have uploaded a video, your account will be classified as a channel. You can see your channel by clicking on the Channel button on the navigation bar at the top of the screen. You will be redirected to a page that shows all your uploaded videos.

If you want to find other channels and subscribe to them you can click on the Find Channels button on the navigation bar on the top of the screen. This will redirect you to a page that shows the users and their links to their channels. If a user doesn't have any uploaded files or does not exist, you will be presented with a message "Either no user named <user> exists or <user> has no files so therefore this is not a channel."

Once you click on a channel link for a user that has uploaded files, you will be redirected to their channel homepage that shows all their uploaded files. You will also see a message at the top that states whether or not you are subscribed to this channel. Underneath that message you will see two buttons, one to subscribe and one to unsubscribe. If you have not subscribed to this channel and click on subscribe you will see a success message stating that you are now subscribed to this channel and to go back to the previous page. The message at the top will now say you are subscribed. Unsubscribing works the same way. You cannot subscribe to your own channel and you can subscribe again to a channel or are already subscribed to or unsubscribe to a channel that you are already unsubscribed from.

## Playlists

To access your playlist you will need to be logged in first. Once you are logged in, on the home screen of MeTube above Most Recent Media, there is a button titled “Playlists.” Once you click on it you will be redirected to a page that shows a text bar on the top to create a new playlist and below it your existing playlists. If you want to create a new playlist just type in a playlist name on the create a new playlist textbox. If you create a new playlist with a name that is currently being used by one of your existing playlists, you will not be able to create the playlist and will have to try again. Once you have created the new playlist it will show up below the “Your Created Playlist” heading. You can access a playlist’s stored files by clicking on the playlist name, delete the playlist, or rename it. The same rule follows with renaming a playlist, you cannot give it a name that is being used.

In order to add files to a playlist you will have to go to click on Browse on the navigation bar on the top. Each file will have a text input next to a label that states “Search for one of your created playlists to add this file to it:” Search for an existing playlist and if the playlist exists and if the file is not already in the playlist you will be able to add it to the playlist.

Back on the Playlist page you can click on the title of the playlist where you added the file and you can see that the file is now stored in that playlist. You can also also sort the playlist files by name, size, views, or time uploaded and choose whether you want it to be sorted in ascending or descending order.

## Favorites List

To access the favorites list you will need to be logged in. Once you are logged in click on Profile Details on the navigation bar on the top where you will be redirected to your accounts page where your favorites list is located on the left column below Your Media.

To add a file to your favorites list, you will need to be in the Browse page which can be accessed from the navigation bar on the top of the screen. On the browse page each file has a button called “Add to Favorites”. Click on it to add the file to your favorites list. If the file already exists, you will be shown a message that the file is already in your favorites list.

## Most Viewed

To see the most viewed files in MeTube you will need to be in the homepage of the MeTube which can be accessed by clicking on the home button on the navigation bar on the top. On the homepage you can see the most viewed files on the left column with the blue background. You will see the title, creator, view count, and the file for each file presented in the list, under the title Most Viewed Media

## Most Recently Uploaded

To see the most recently uploaded files in MeTube you will need to be in the homepage of the MeTube which can be accessed by clicking on the home button on the navigation bar on the

top. On the homepage you can see the most viewed files on the right column with the green background. You will see the title, creator, upload date, and the file for each file presented in the list, under the title Most Recent Media

## Ordering Media Files in Different Ways

You can sort the media files in the Browse page (located on the navigation bar on the top of the screen) by name, views, upload\_time, and size. This sorting option is located at the top of the screen before the media search results. You will also pick whether you want the sorting to be in ascending or descending order. After you pick both fields you will click on search and new search results will appear.

## User Interaction

### Messaging Exchange between Users

To send a message to other users you will need to be logged in first. Once you are logged in, on the Home screen MeTube, above the Most Recent Media, there is a button called “Message users” that once clicked will take you to the messaging page. The messaging page is sent up in this manner. You will first be greeted with a message that states if you want to start a new message search for a user. Once you find a user that isn’t blocked in your contact list, you will be greeted with another text input where you can type your message and click on send.

Your sent messages will be shown in the Outbox (has a gray background). Your outbox is presented as a table where it shows to who you sent the message, what the message was, and the time sent. The outbox table is ordered by the most recent message sent.

Your inbox is presented as a table where it shows your newly received messages from other users. Your inbox has a blue background. Your inbox is presented as a table where it shows you from who the message is from, what the message is, and the time sent. The inbox table is ordered by the most recent message received. To respond to a message you can click on a message on the inbox table. The message will redirect you to a page that will show you the sender, message, and time sent of that specific message. You can respond directly to that message by entering text in the text input below the received message and clicking on the button “Send”. You will be directed to a page that shows a success message and asks you to go back to the previous page. The previous page now shows the message you send underneath the message you received. You can now go back to the messaging dashboard and the outbox will now reflect this new message you sent.

### Commenting on Media File

To comment on a media file, a user needs to access the media page of a file through the browse page, which can be accessed from the navigation bar on the top of the screen. The user

can add a comment below the File MetaData button and the comments will be shown in a hierarchy based on whichever comment was first. You can comment on a specific comment by replying directly under that comment. Once you click reply the page will reload and your reply to that comment will be labeled as comment-level: 2 because you replied to a comment level:1 comment.

## Media Rating

To leave a rating on a media file, a user needs to access the media page of a file through the browse page, which can be accessed from the navigation bar on the top of the screen. The user can leave a rating based on the 5 star rating system by clicking on however many stars they want to leave for the media file. Underneath your rating you will see the average rating of the media file and your individual rating will be averaged with the ratings other users have left on that same media file.

## Search

### Keywords-based search

In order to search based on keywords or the title of an uploaded multimedia file please go to the Browse page which can be accessed from the navigation bar on the top. The browse page presents all the uploaded files in a list. At the very top is a search bar where you can enter the file name (including file name keywords) or keywords associated with a file you are searching for to get results. Once you click the Search button before the files start, new search results will appear.

### Media Recommendation

In order to see media recommendations you will need to be on the media page of the media file. You can access the media pages of uploaded files from the browser. On the Media page you will see the recommended media based on the file you are viewing at the moment. (This recommendation is completed by presenting all the files that are under the same category as the media file you are currently viewing).

### Feature-based Media Search

In order to search for media based on some low level features please go to the Browse page which can be accessed from the navigation bar on the top. The browse page presents all the uploaded files in a list. There are two feature-based search options at the top. Search by file type and search by file size. You can search by file type (audio, video, picture) through a dropdown and/or choose a file size from the range slider (range is from 0 MB to 2 MB). Once

you pick your search parameters you can click on the button “Search” and you will be greeted with new search results.