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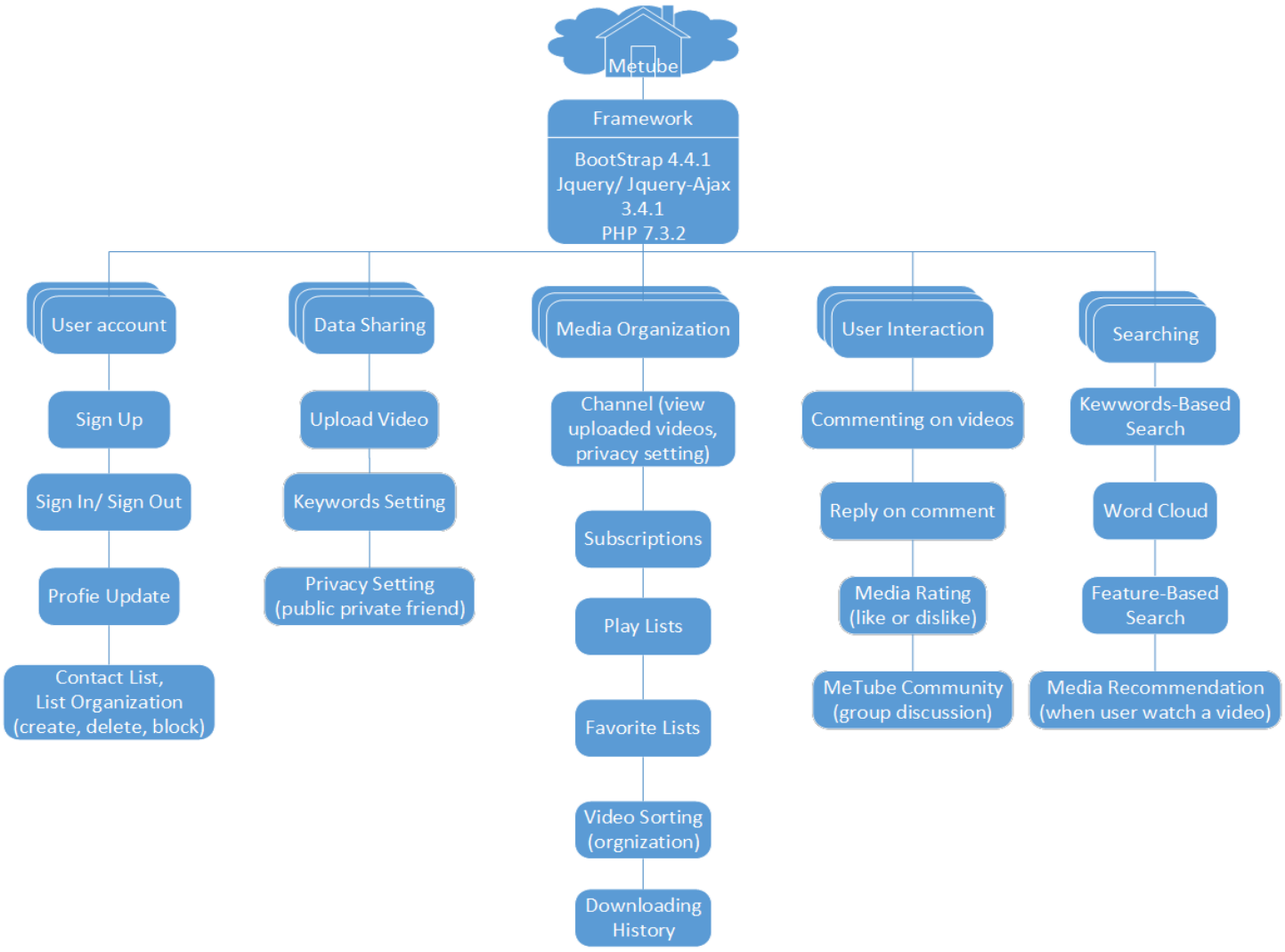
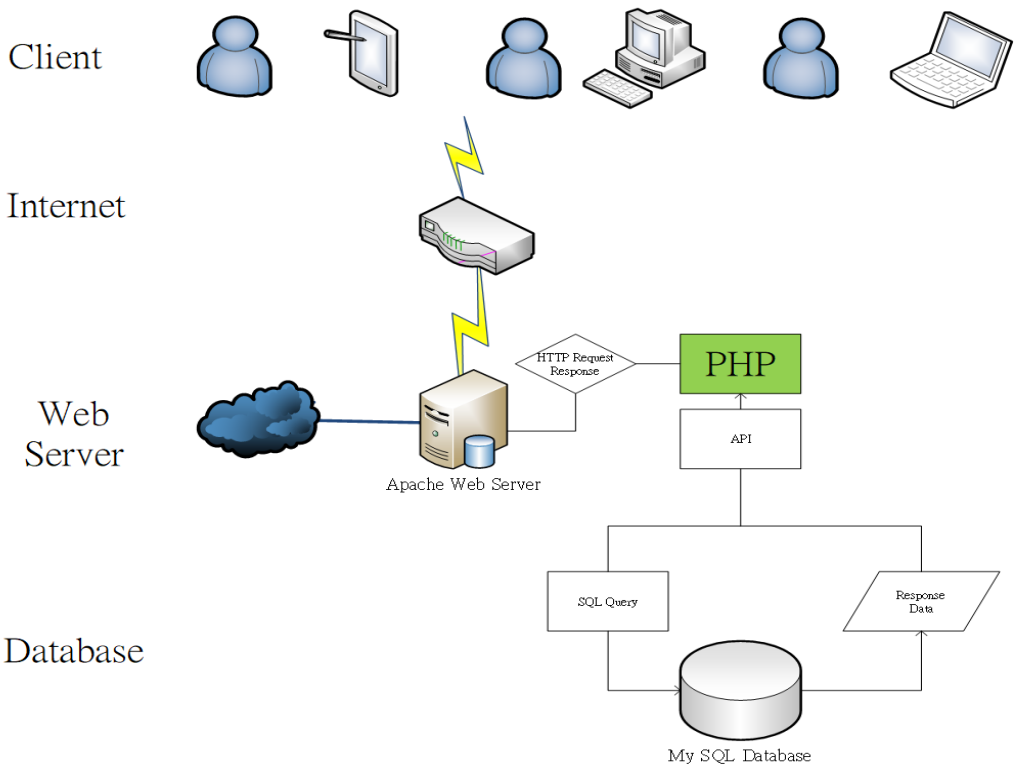
1. System Design

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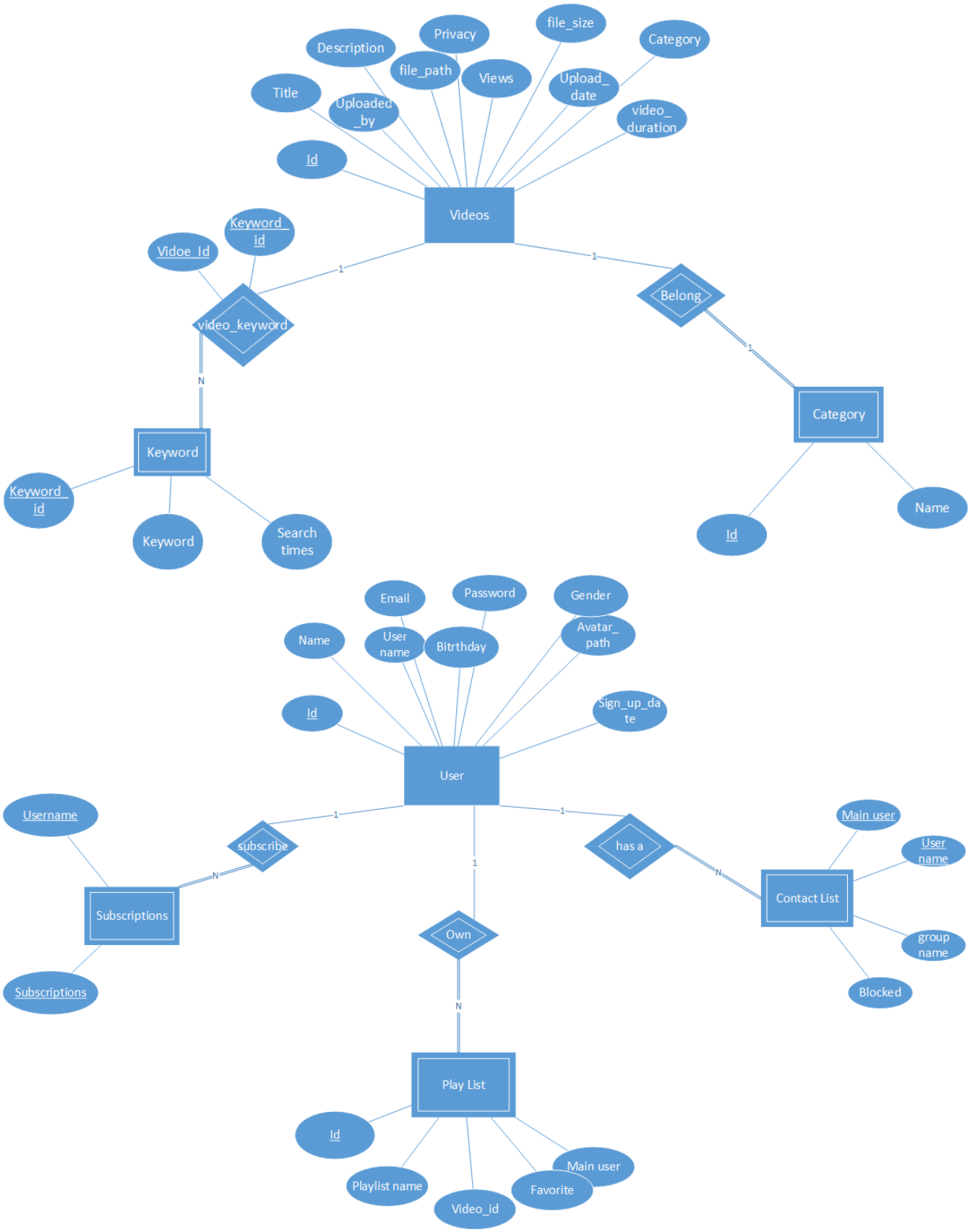
Web
Server
Database
HTTP Request
Response
PHP
API
Apache Web Server
SQL Query
Response
Data
My SQL Database

2. ER Diagram


Videos
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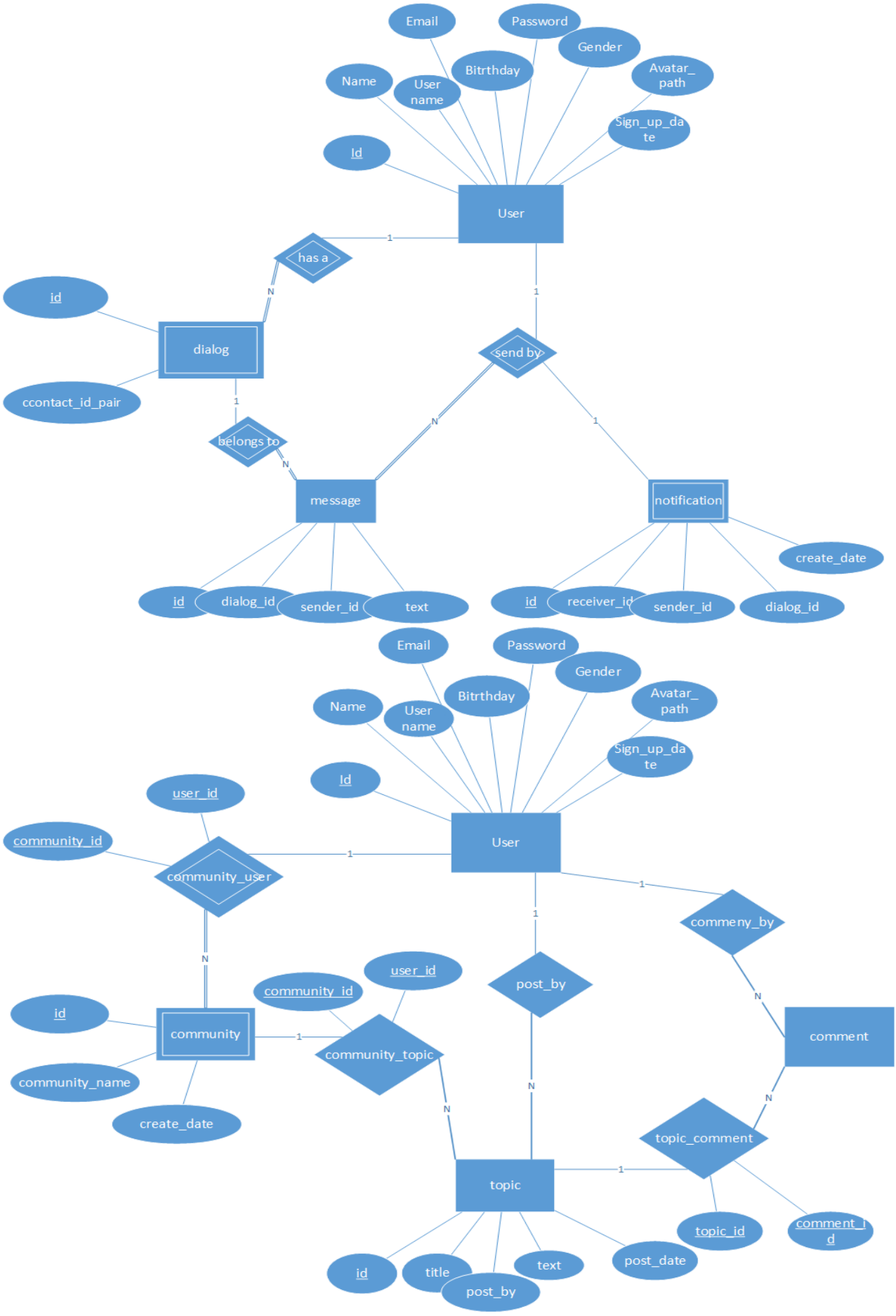
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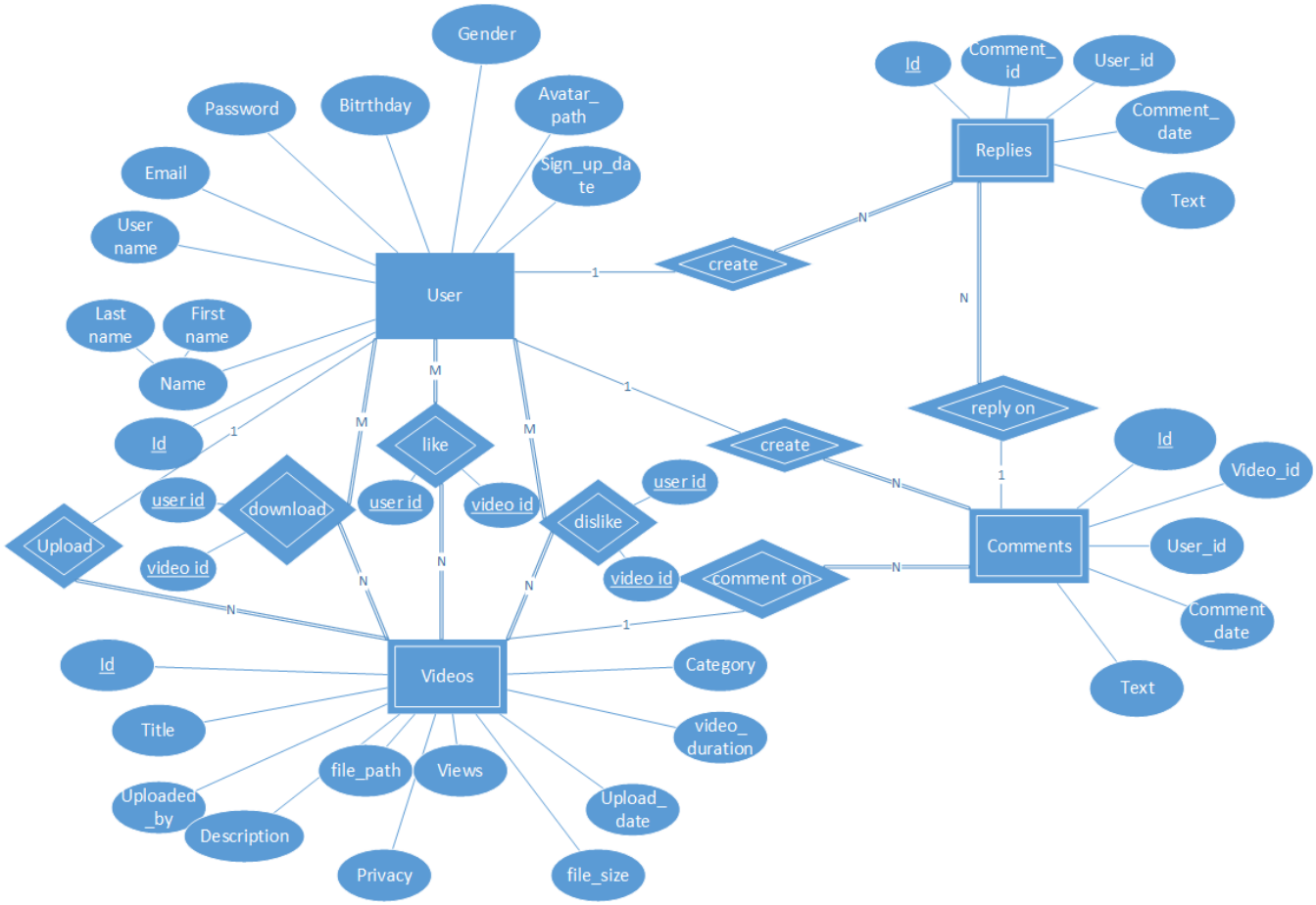
Gender
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video id
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video id
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create
create
reply on
Id
Comment_ id
User_id
Comment_ date
Text
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Video_id
User_id
Comment _date
Text
Comments
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Views
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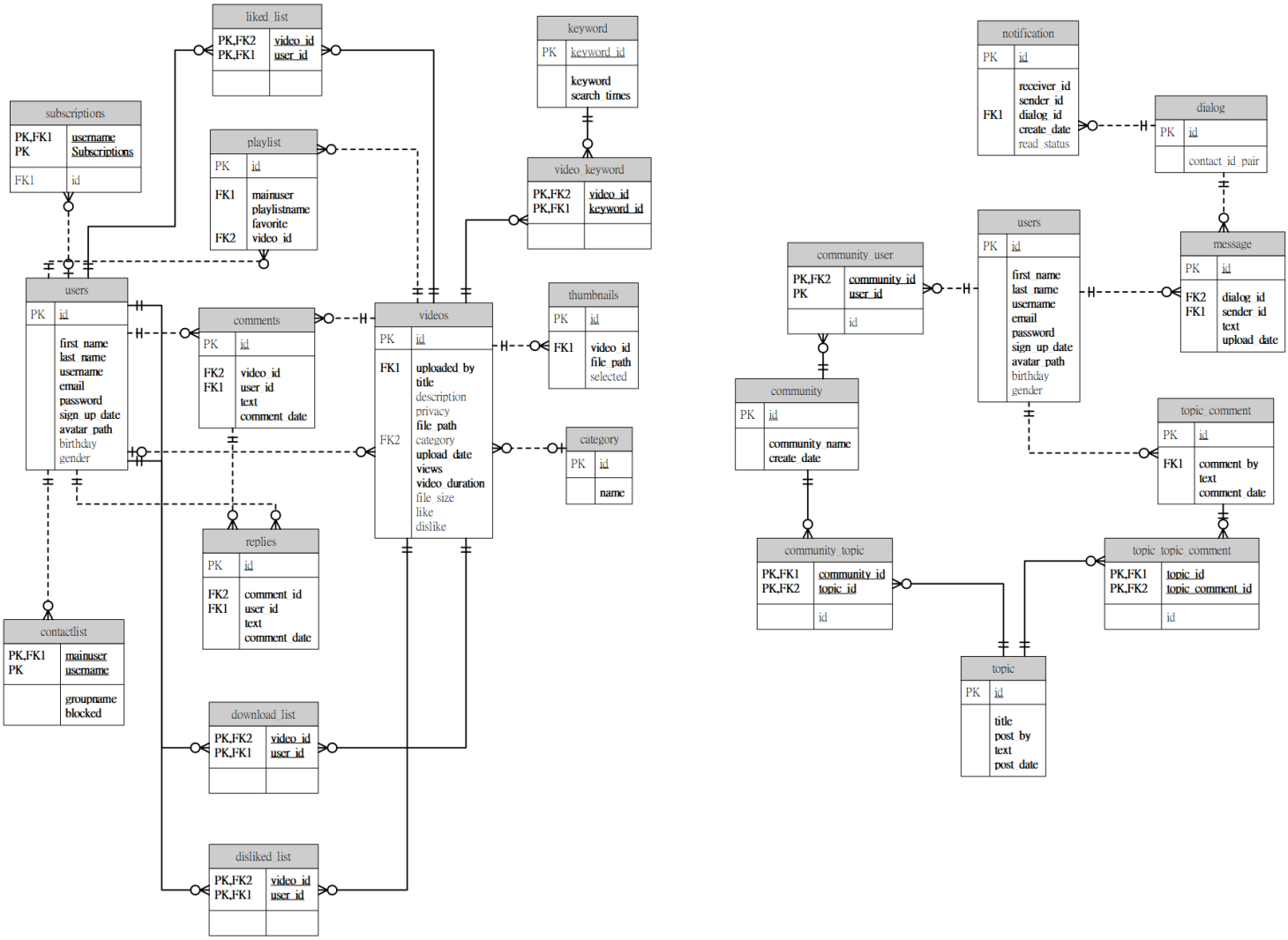
3. Database Schema



4. Function Design and Implementation Details

Upload function

In the upload.php. A register user can upload a media file to the Metube, it accepted various file types, such as 'avi', 'wmv', 'mp4', 'mpeg', 'rmvb', '3gp', 'mkv', 'flv' etc. System will automatically convert it to mp4 type of file and generates three thumbnails. Furthermore, system will record the file path and related information on the table videos in the database and store those files on the web server. The form will send data to media_upload_process.php first. Then call the class video upload to process the data. In the upload form, user need to fill out the Video title, keyword, description, privacy, category. The validated functions contain file type, file size, post method examination.

4.1 User Account

4.1.3 Contact List

In the contactList.php. A register user can add a new contact to a list by input username, group name and block, system will insert a new record to the table contactlist in database. User can also choose different contact list organization, such as friend, family, favorite to view different group of record in the table. Another function is to delete, block and unblock multiple contacts at same time, if you block

a user, their subscription will also cancel. The users who has been blocked cannot view or download your media files. System will call the contactListProcessor class to hander those actions and update related records in the database.

4.3 Media Organization

4.3.1 Channel

The home page, which is index.php will show all the media files that are not set to private or friends only. However, if you are his/her friend, you can still see the files. You can browse the media by different categories, there is a page button on the bottom, only at most 8 medias will show on one page. Those action will send data by post method to the showallvideoprocess.php first, then it will call the showAllVideo class to process request and send response back.

In the channel.php, if you connect to your own channel page, there are 6 tabs will show. These tabs will send data by post method to the channelprocess.php first, then it will call the channelprocessor class to proceed the requests.

First one is channel tab, a user can see all the media that him/her uploaded. User can choose multiple media to delete, this action will delete the actual video and thumbnail files that stores on the server and also delete the related records in many tables in the database. You can also set multiple media's privacy to public, private and friends. Those request will send to channelprocess.php first, then call the class- hannelProcessor to process the request.

The second tab is my subscriptions, you can see other users channel that you subscribe list here, it will only show 4 videos per channel for the concise view, you can click the username to direct you to other user's channel page to see the full list of videos. Nevertheless, if you are block by the user, your subscription will be canceled.

If you are direct to other people's channel, you can only see the channel tab, you can subscribe their channel and add other user as friend in your contact list. However, if you are block by this user, you see this channel, nor subscribe or add friend.

4.3.2 Media List

Third tab is my playlist, user can add media to the playlist, user can create a new empty playlist first, then in the watch.php, the user can add a video to one of the playlists. User can also remove the whole playlist or add the whole playlist to the favorite list. If user would like to remove single video or dd single video to favorite list, user can click the playlist name, which will direct to the playlist.php.

Fourth tab is my favorite list, user can see all the media in your favorite list, you can remove multiple videos from the favorite list here.

4.3.3 Sorting

Fifth tab is videos sorting, you can see the most viewed, most recently uploaded and order media files in different ways, such as video title, duration, file size. It will show 6 videos per page.

The last tab shows the download records by a table, when you click the video title you can also link to the watch page.

4.5 Search

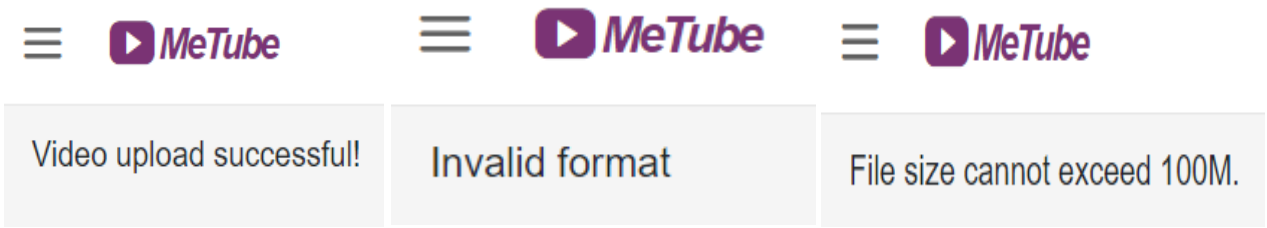
When you click the search button on the top, system will direct to the search page and show the keyword-based result. It will show the 4 videos on the one page. The result does not show the videos files that set to private. In addition, if you are blocked by other user or you are not friend of him/her, you cannot see his/her media. You can click the page button on the buttom to see other videos. This page will also show the word cloud, it lists three hot keywords and search times on the top, when you click each keyword, it will direct you to that keyword search result.

There is an advanced search button, it give you the feature-based media search on top of keyword-based result. The feature includes video title, upload by, description, category, file size, duration, views, upload date. You can input all of the filter or just choose some of them. This page will send data by post method to the searchprocess.php first, then call the class- searchprocessor to process the requests.

5. Test Cases and Testing Results

Upload function

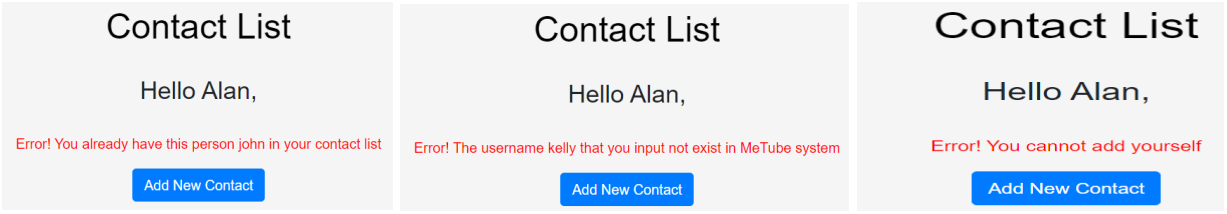
When user click the upload button to submit the media file and related information, system will validate if the file size is under 100mb, if not, you will get error message ”File size cannot exceed 100 M”. Furthermore, if the upload file type is not video, it will show invalid format. Finally, If the upload process is successful. You will see the message “video upload successful”.



5.1 User Account

5.1.3 Contact List

When user click add new contacts, the system will check if this username already in your contact list or it has been registered in Metube or not or you cannot add yourself. User can also filter, block, unblock, delete contact of multiple contacts without any issues.

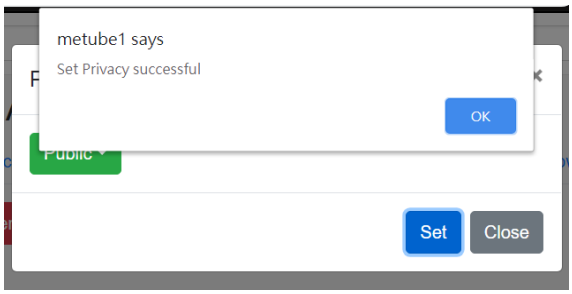


5.3 Media Organization

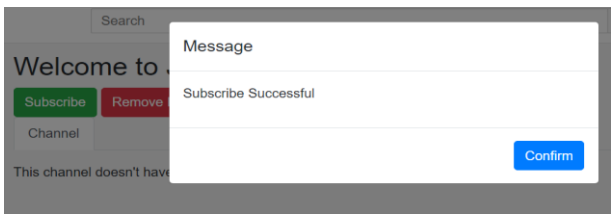
5.3.1 Channel

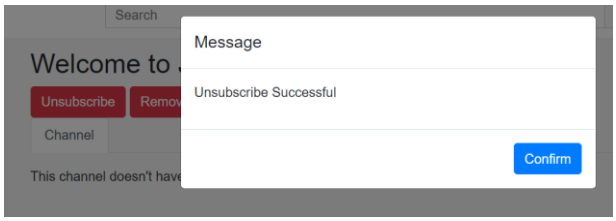
User can browse medias by different categories on the index.php successfully.

A register user can set videos privacy and delete videos without any problem.

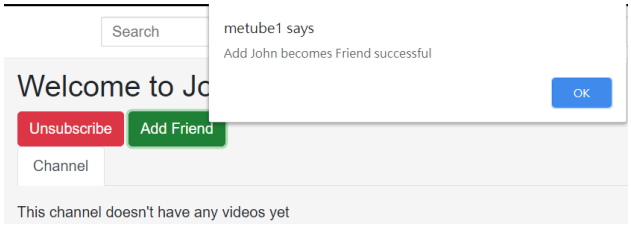


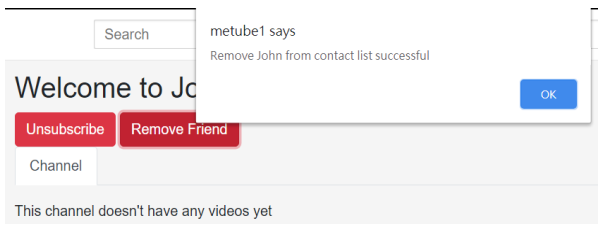
The user can see all the subscribe channels under my subscription tab. You can subscribe and unsubscribe on another user's channel page.





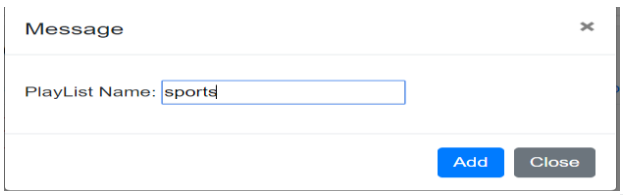
You can add friend and remove friend on another user's channel page. However, if user has been blocked, you cannot see his/her channel.

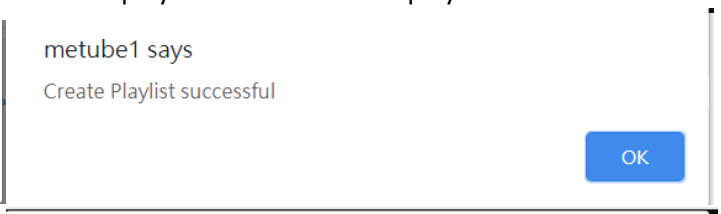


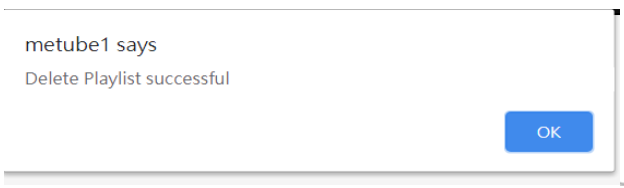


5.3.2 Media List

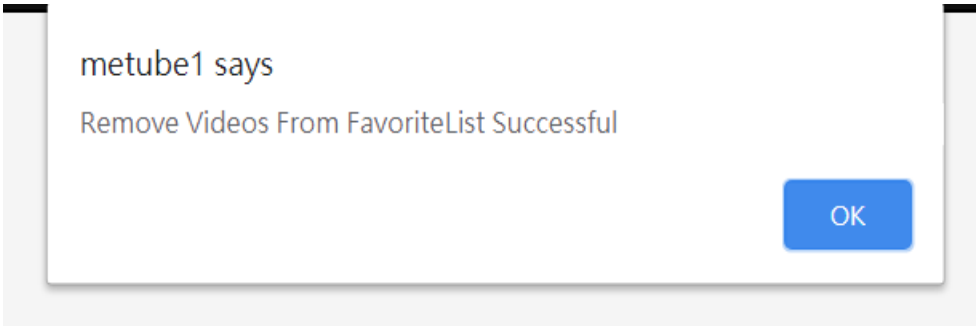
User can add a new playlist, delete whole playlist, add whole playlist to favoritelist in playlist tab.





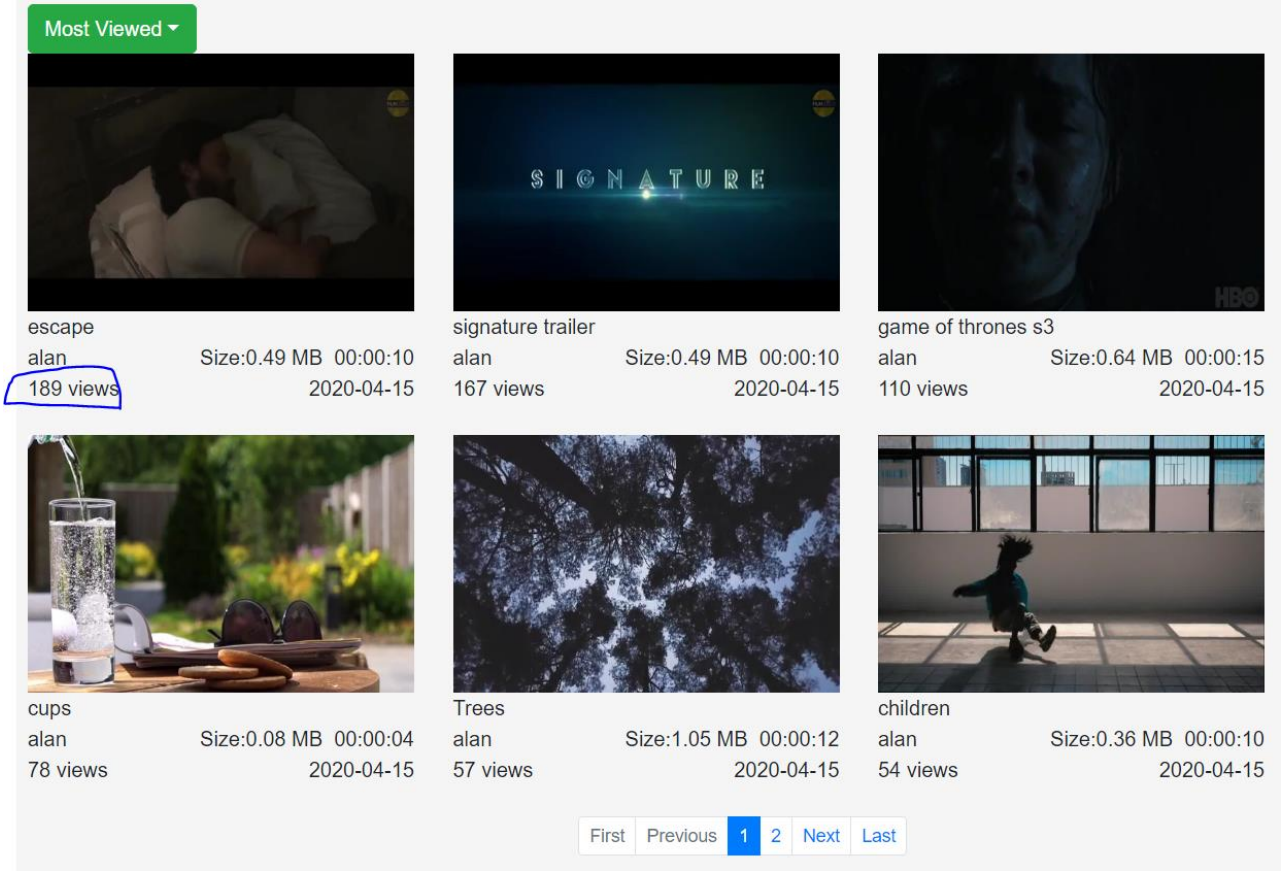


User can remove media from favorite list without any issues.

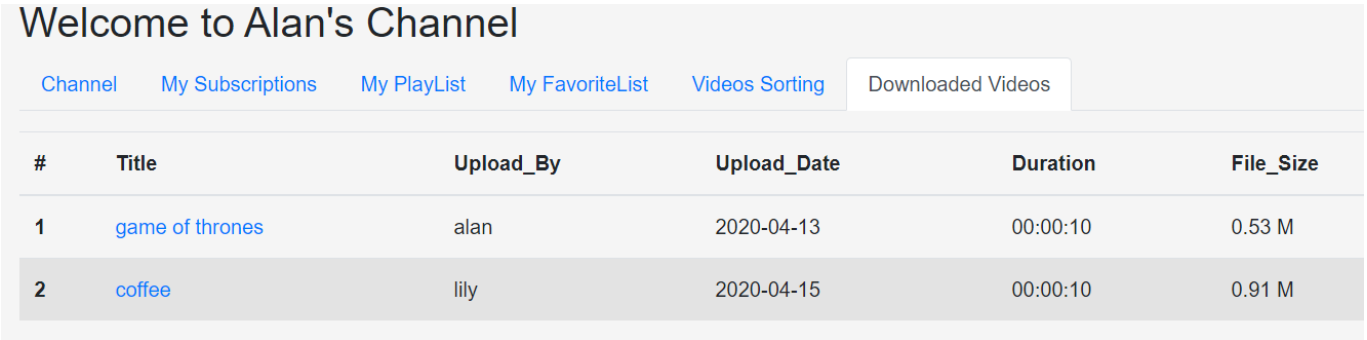


5.3.3 Sorting

When you choose different media attribute to sort, you can see the media ordering in a correct way.

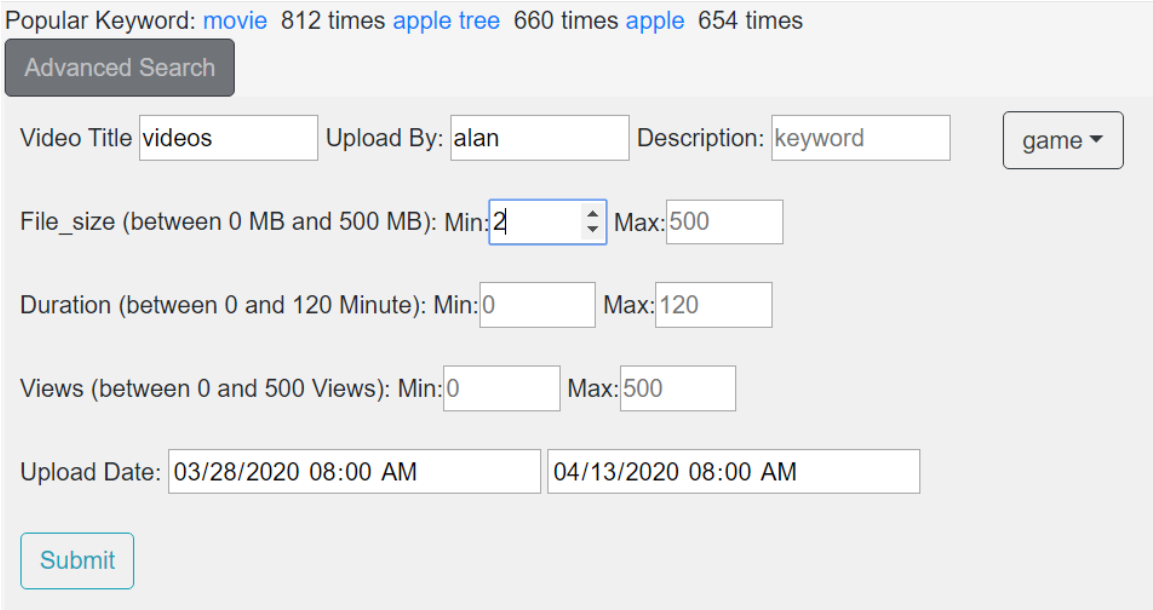


The download videos tab shows all the download history successfully.



5.5 Search

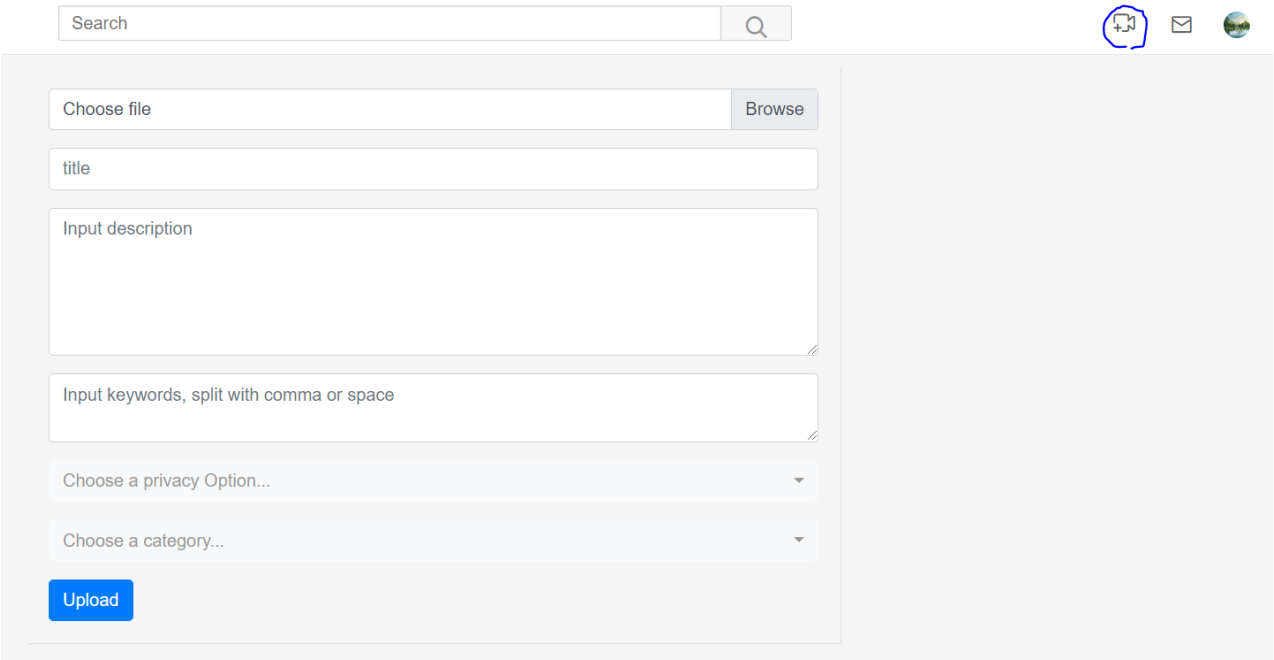
You can select different filters to show the search result



6. User Manual

Upload function:

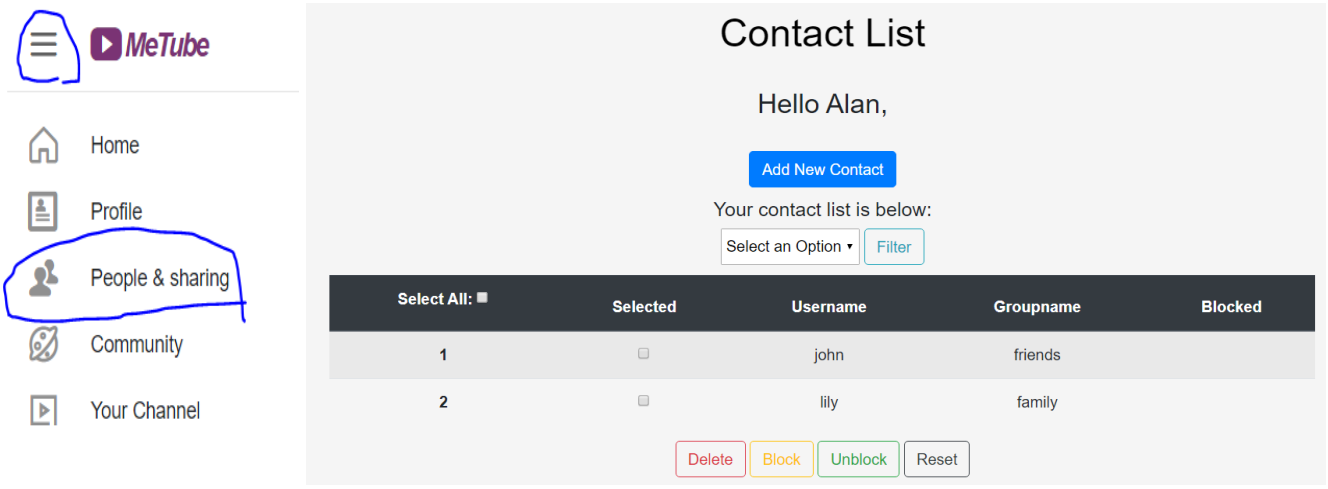
User can upload a media file by click the button on the top right corner of the any web page. In addition, user need to input some information, such as video title, description, keyword, category, privacy.



6.1 User Account

6.1.3 Contact List

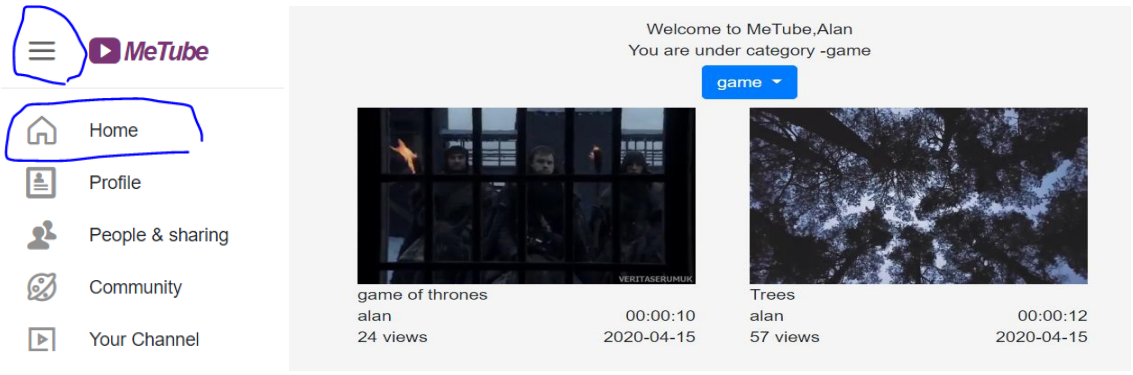
First of all, User can click People & sharing tab locate on the left side menu to direct to contact list page. User can click add new contact button to add a register user into contact list. Also, choose a group name to filter the records by different contact list organization. Finally, user can choose multiple contacts to delete, block and unblock.



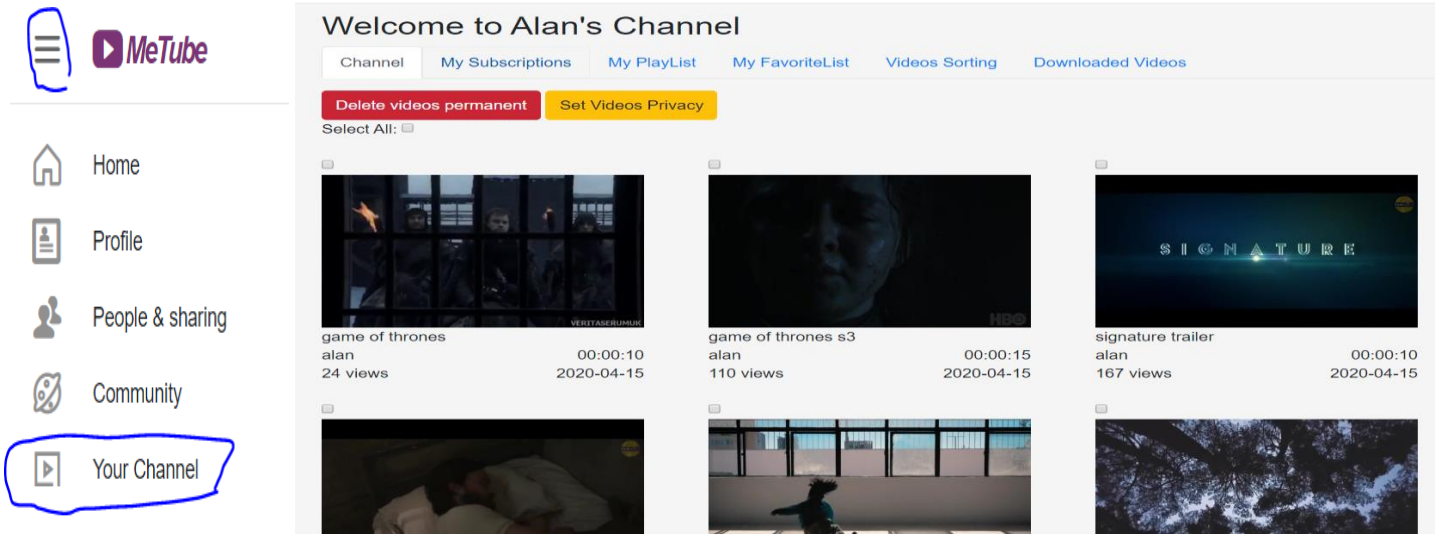
6.3 Media Organization

6.3.1 Channel

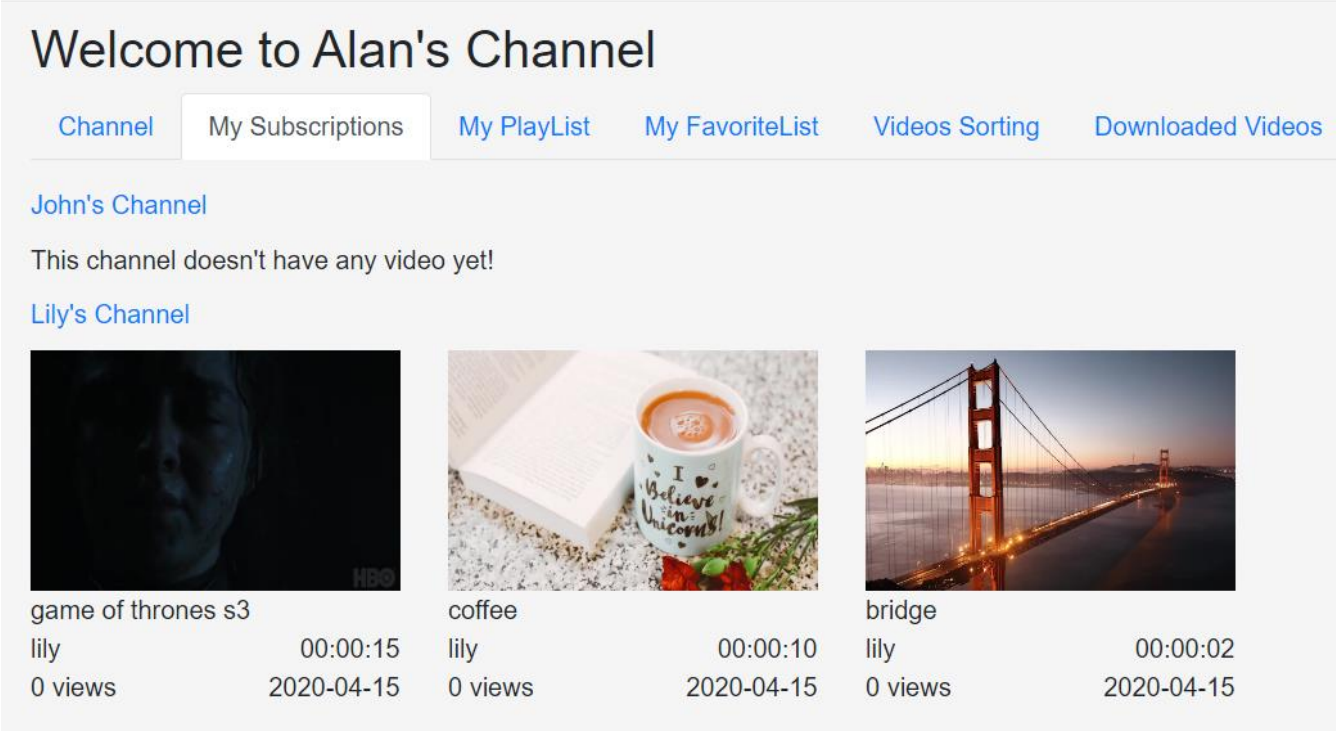
The home page of Metube will show you all of the medias, you can filter the media by different categories.



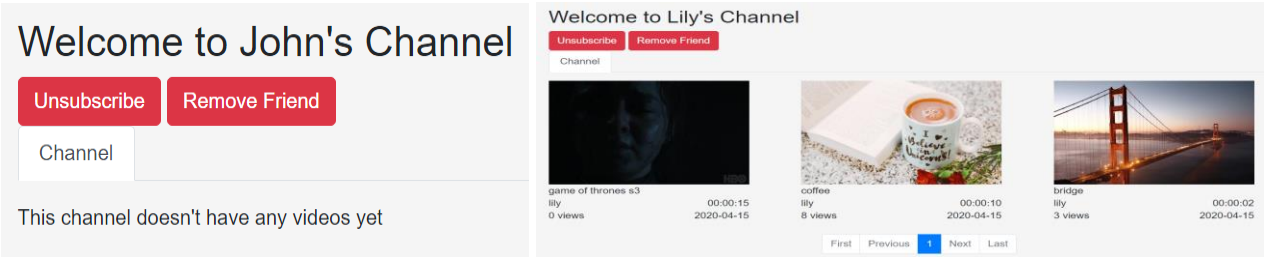
User can click Your channel tab locate on the left side menu to direct to channel page. The first tab of my channel is to manage all of your media files, you can click delete and set privacy for multiple videos.



On my subscription tab, you can see the list of your subscription. You can click username to direct to other user's channel below.



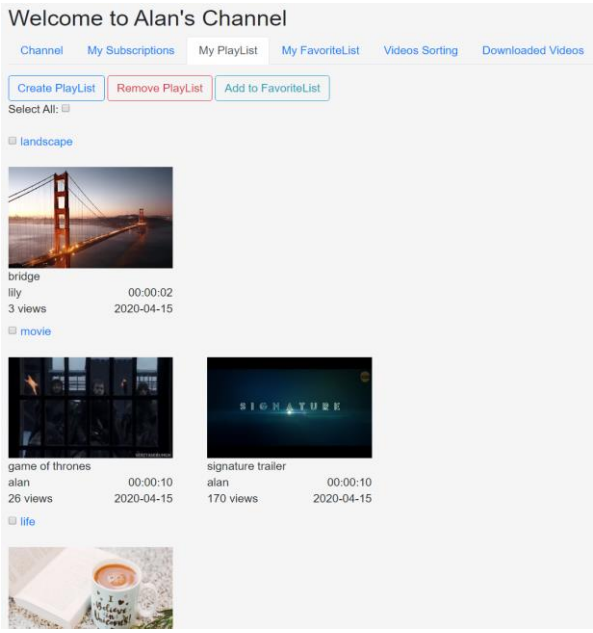
When you are on another user's channel, you can subscribe/add friend them.

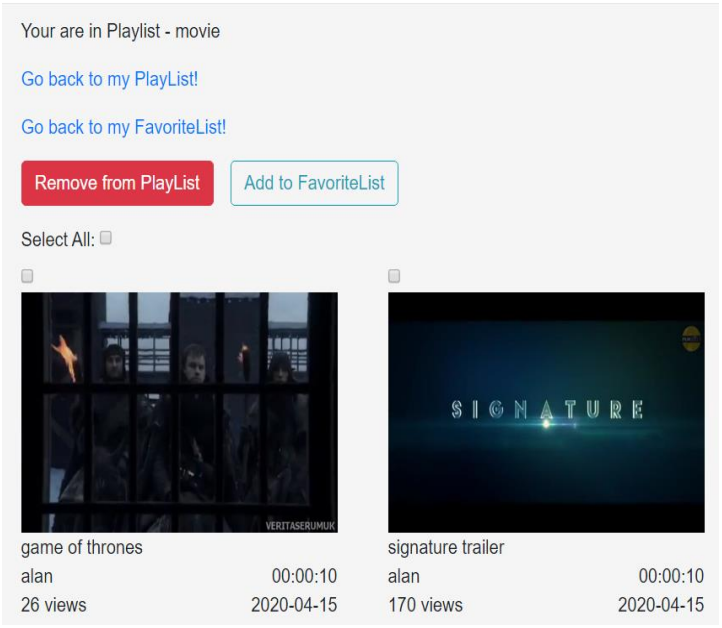


6.3.2 Media List

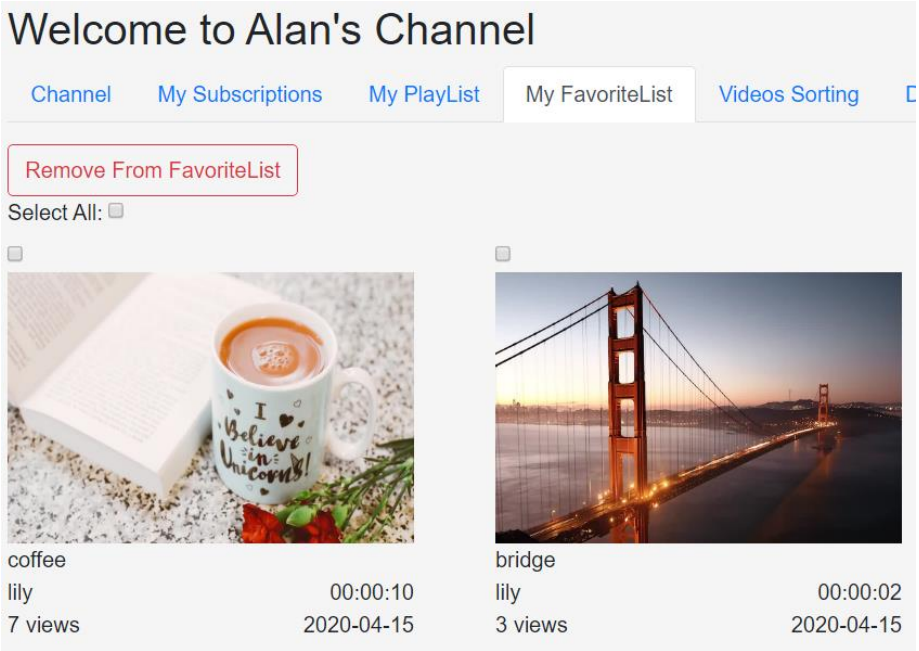
The playlist tab can show all the playlist that you created, you can create a new playlist by click create playlist button and use can select multiple whole playlists to remove or add them to favorite list. Also, user click the playlist name, it will direct to a new page.

You can edit the single videos here.



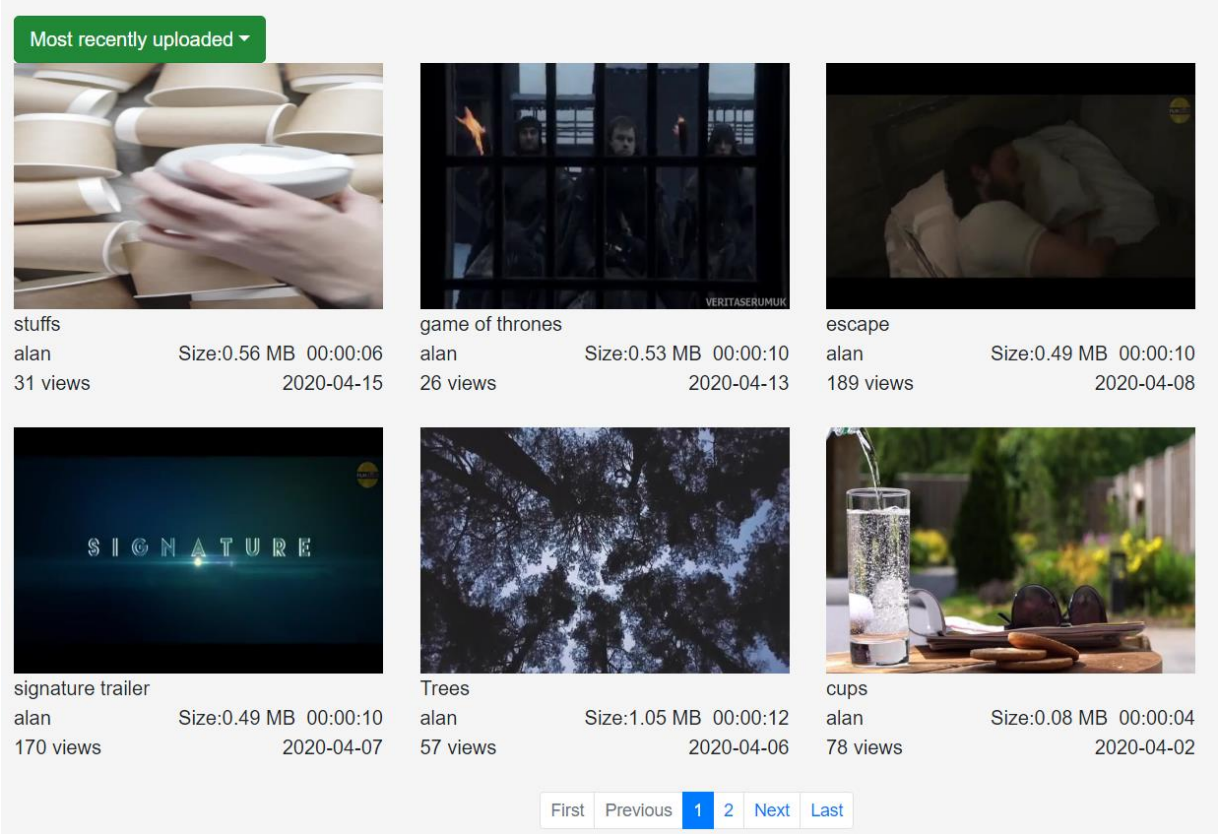


By clicking my favorite list tab, user can see all the medias on the favorite list. You can also select videos to remove them from the favorite list.

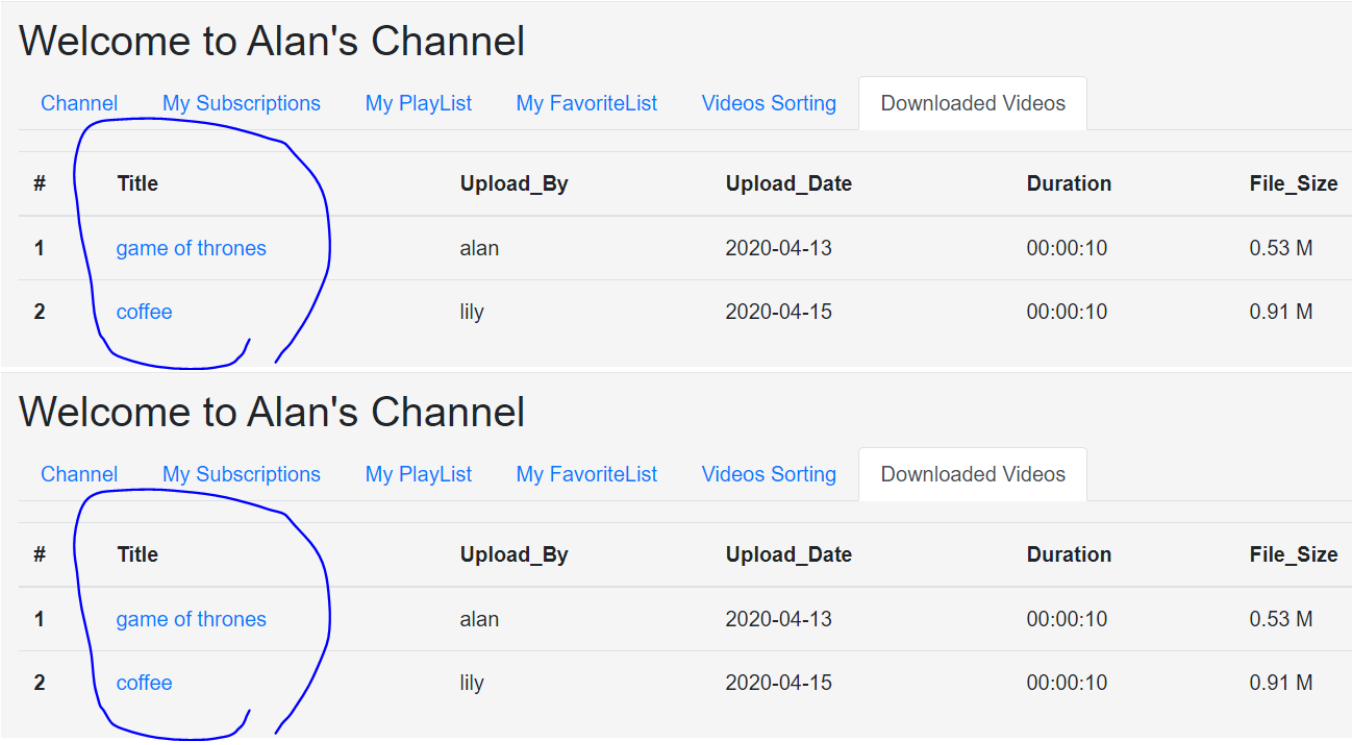


6.3.3 Sorting

The video sorting tab can show you the ordering of media by different video attributes.

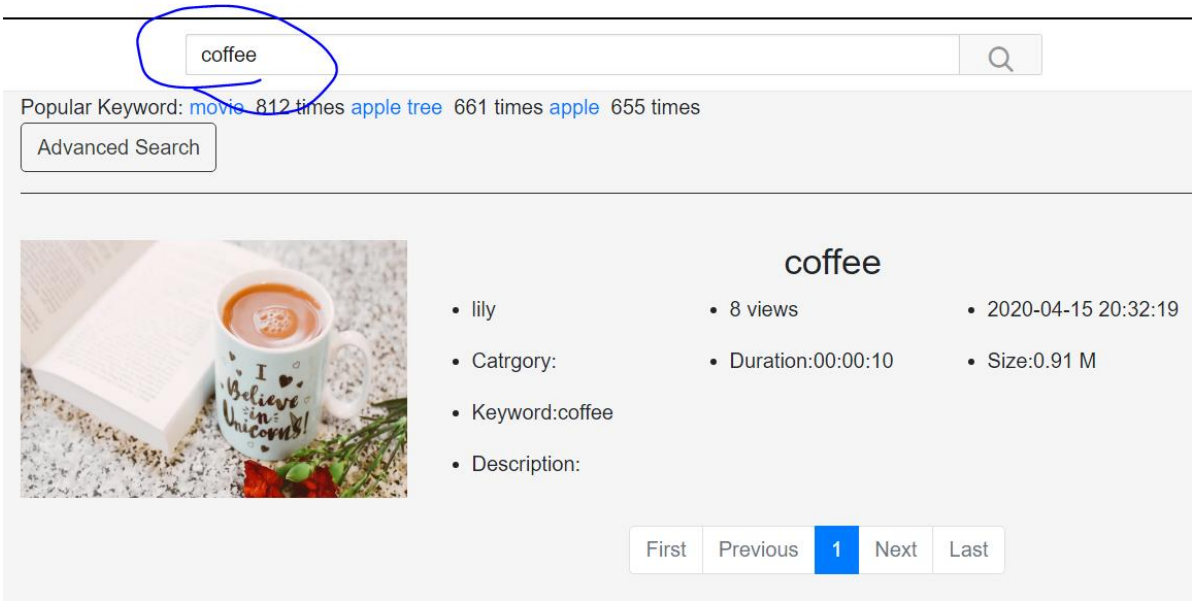


You can see the download history on the last tab, and click video title to the watch page.



6.5 Search

User can type keyword in the search box on the top. There are three hot keyword shows, you can click them to specific keyword-based result. The advanced search button shows more media feature to filter the search result.



Popular Keyword: movie 812 times apple tree 661 times apple 655 times

Advanced Search

Video Title keyword Upload By: alan Description: keyword Category

File_size (between 0 MB and 500 MB): Min: 0 Max: 500

Duration (between 0 and 120 Minute): Min: 0 Max: 120

Views (between 0 and 500 Views): Min: 100 Max: 500

Upload Date: 03/28/2020 08:00 AM 04/13/2020 08:00 AM

Submit

---

game of thrones s3

- alan
- 110 views
- 2020-04-01 19:50:17
- Catrgory:Entertainment
- Duration:00:00:15
- Size:0.64 M
- Keyword:game thrones s3
- Description:
  game of thrones s3

signature trailer

- alan
- 170 views
- 2020-04-07 19:54:56
- Catrgory:life
- Duration:00:00:10
- Size:0.49 M
- Keyword:asdf
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