

Fahim Khan (fk652)

CS 6083 Databases

5/7/19

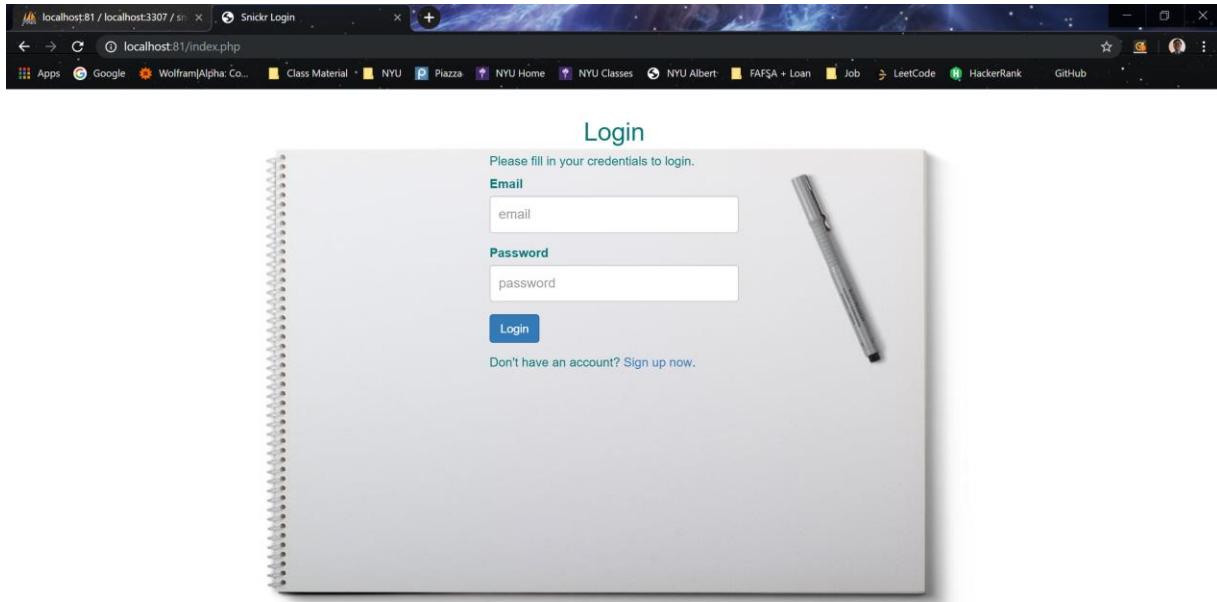
Project: Part 2 (Website Implementation)

Design Explanation

- Runs on an Apache web server using HTML, PHP, CSS, and some Javascript.
- PHP interfaces with the back end MySQL database server, which is managed by the myPPAdmin application. All SQL queries, filtering, preparing statements, etc. are done in PHP to prevent SQL injection attacks and other vulnerabilities.
- HTML interfaces between the front and back end, which makes the website run
- CSS is used for the front end styling, such as background images and coloring of input forms.
- Javascript is used in some parts of the front end to update things in real time on the client side, such as the input search filters and live chat updating.
- The front end is mostly styled using Bootstrap 4, a free and popular framework for developing websites. All the input forms, navbar, chat window, and more are provided and work via Bootstrap.
- The MySQL database server contains all the information about users, workspaces, channels, messages, etc. All of which were described and shown in the part 1 report and ER diagrams.
- myPPAdmin lets me create all the database tables, foreign key relationships, and foreign key constraints such as cascading deletes and updates.
- Password hashing is done using the PHP passwordhash() function to encrypt password information in the database.
- Session handling and connecting to the database are done in separate files, and all web page files call on these
- Reading and writing chat messages are also in separate files, which get called upon by the view chat message PHP file whenever new messages are sent and received.
- All other web pages have their own PHP file. They can also redirect into one another.

Login and Registering

- User can login with their email and password
- There is a link on the login page to register if they don't have an account
- Registering involves an email, password, password confirmation, first name, last name, and nickname. All fields are mandatory, shown below is an image of when a user doesn't enter mandated fields.



localhost:81 / localhost:3307 / sn... Snickr Sign Up

localhost:81/registration.php

Sign Up

Please fill this form to create an account.

Email

Password

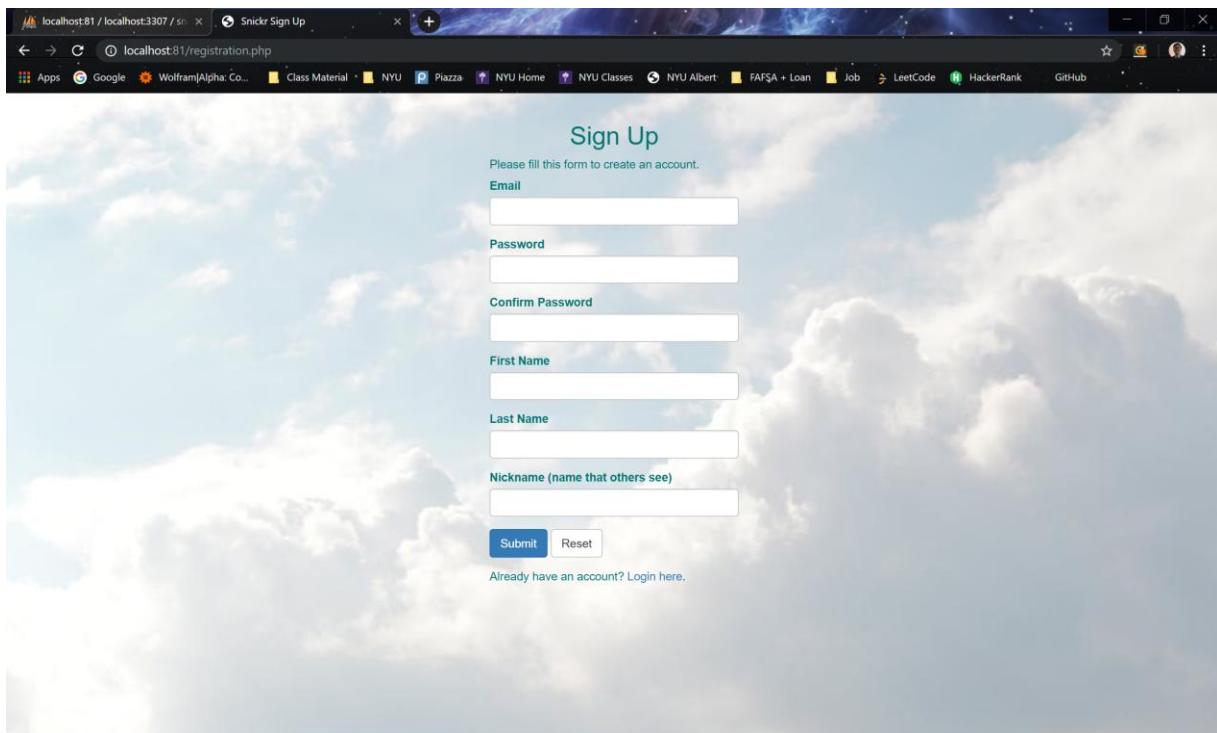
Confirm Password

First Name

Last Name

Nickname (name that others see)

Already have an account? [Login here.](#)



localhost:81 / localhost:3307 / sn... Snickr Sign Up

localhost:81/registration.php

Sign Up

Please fill this form to create an account.

Email
Please enter a email.

Password
Please enter a password.

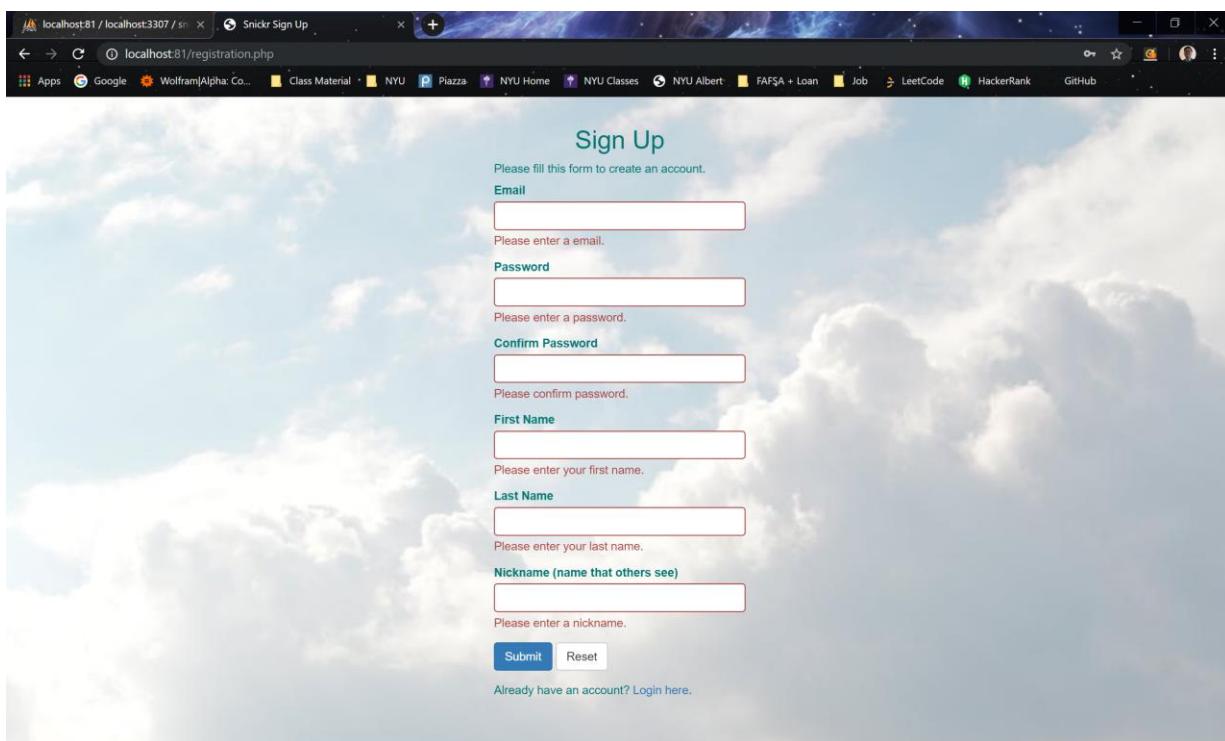
Confirm Password
Please confirm password.

First Name
Please enter your first name.

Last Name
Please enter your last name.

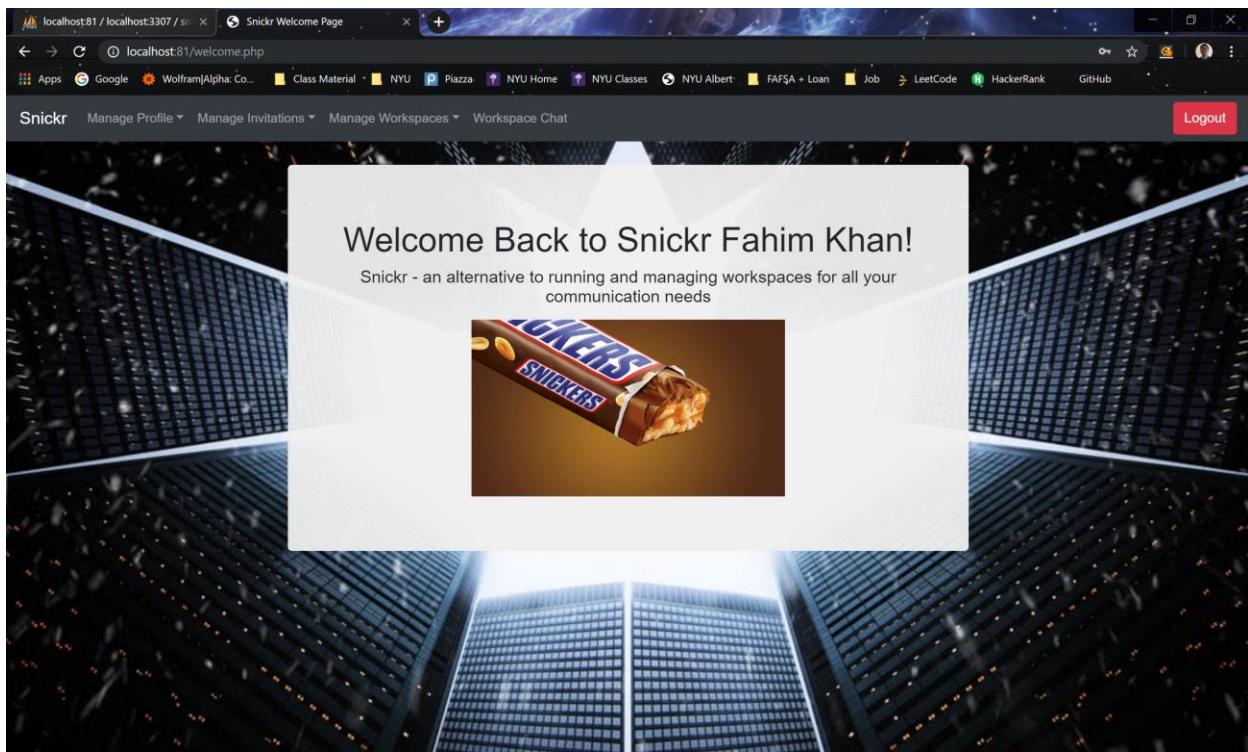
Nickname (name that others see)
Please enter a nickname.

Already have an account? [Login here.](#)



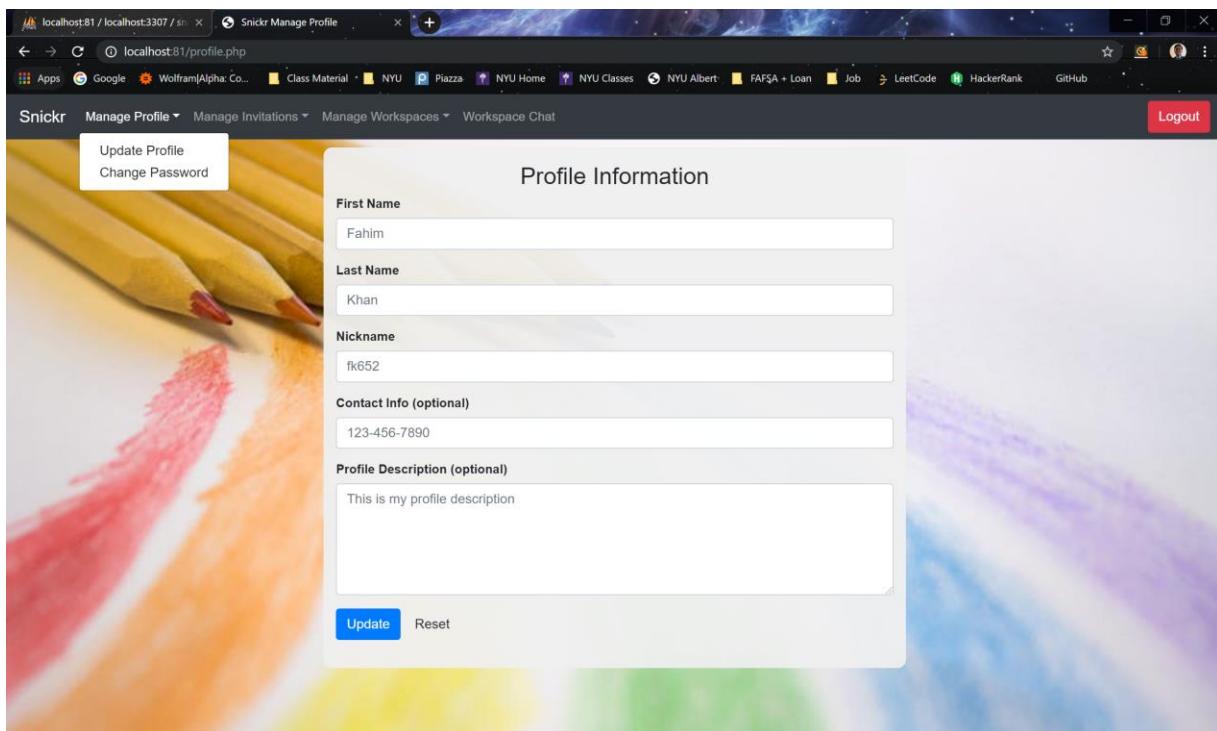
Welcome Screen and Navbar

- This is the home page the user sees when they login or click the Snickr logo on the navbar
- The navbar is used to navigate through the website, containing all actions they can do
- There is a logout on the navbar right side, for whenever the user is done with their session



Profile Management

- User can change their profile information, which includes first name, last name, nickname, contact information, and profile description
- The user's current information is shown in the input fields by default, they can enter a new change on any fields and update it. They can update any certain information. Profile and contact information is optional.
- User can also change password which involves entering the current password, new password, and confirmation of the new password.
- All password input fields are mandatory



localhost:81 / localhost:3307 / snickr / Snickr Manage Profile

Snickr Manage Profile ▾ Manage Invitations ▾ Manage Workspaces ▾ Workspace Chat Logout

Update Profile Change Password

Profile Information

First Name: Fahim

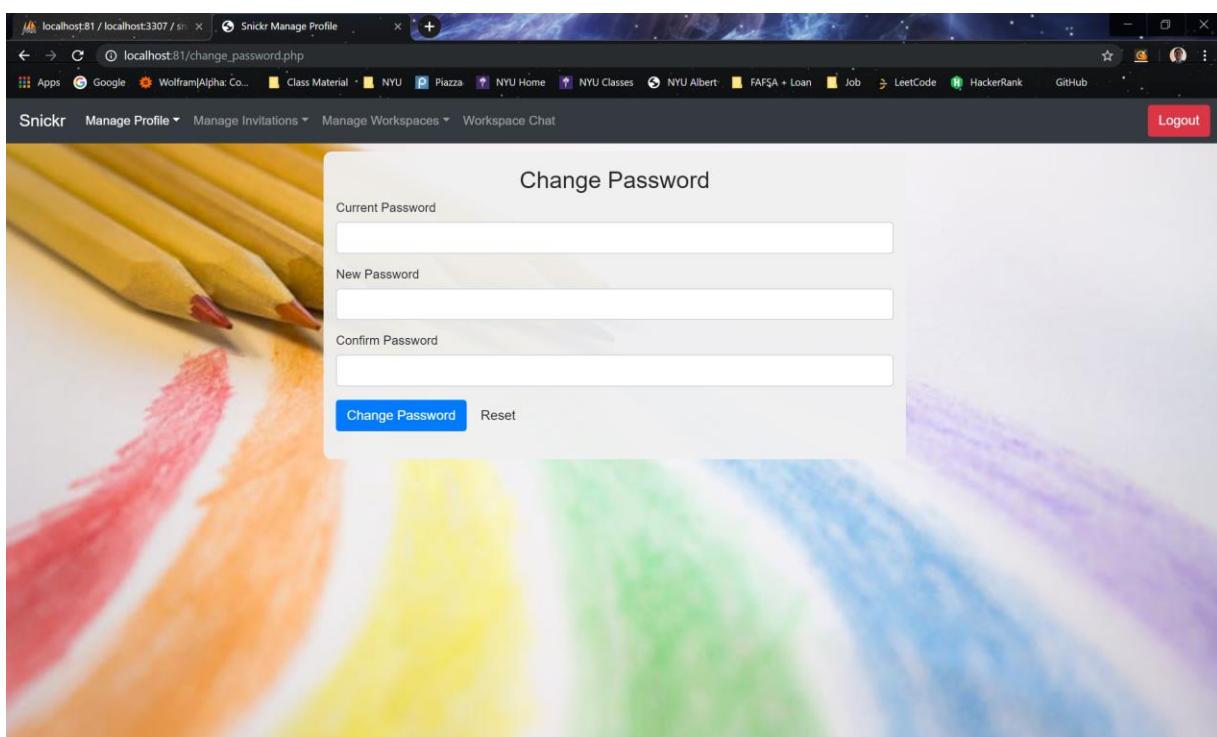
Last Name: Khan

Nickname: fk652

Contact Info (optional): 123-456-7890

Profile Description (optional): This is my profile description

Update **Reset**



localhost:81 / localhost:3307 / snickr / Snickr Manage Profile

localhost:81/change_password.php

Snickr Manage Profile ▾ Manage Invitations ▾ Manage Workspaces ▾ Workspace Chat Logout

Change Password

Current Password:

New Password:

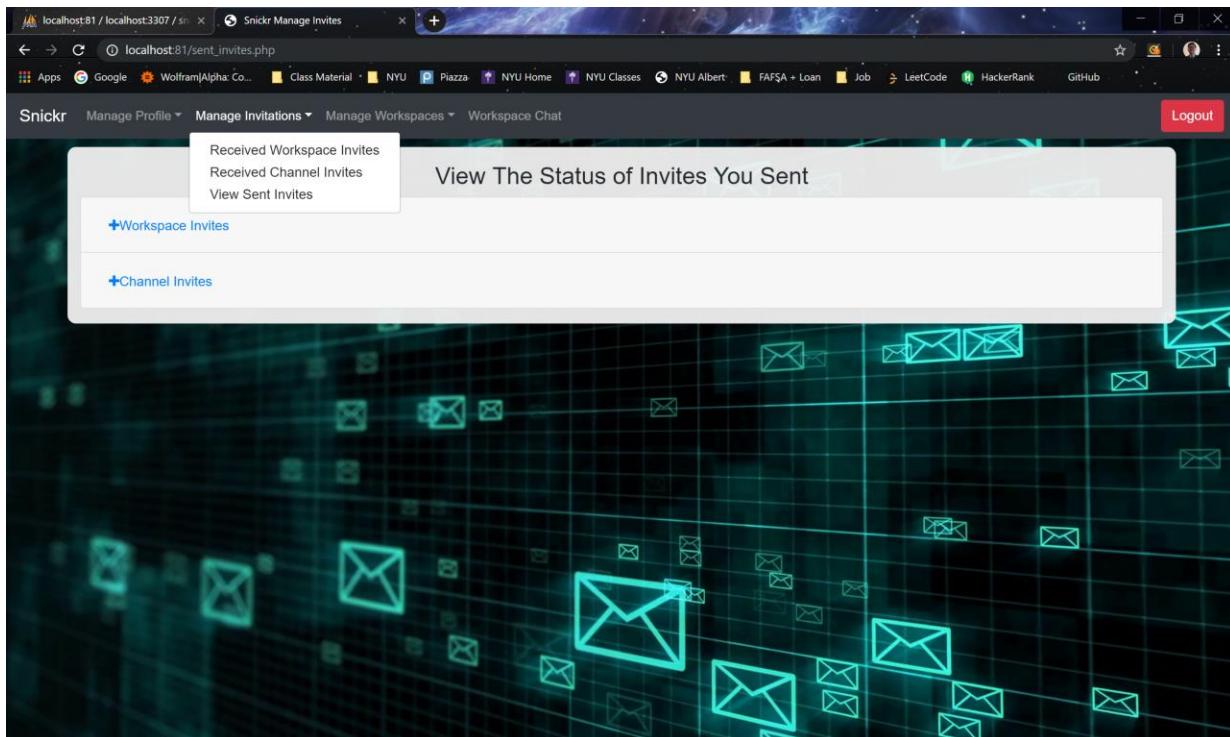
Confirm Password:

Change Password **Reset**

Invitation Management

*(note that some data shown in the images may differ due to using different accounts)

- Users can view the statuses of their sent channel and workspace invites. Channel and workspace invites are shown in separate containers that expand or close.
- Information about the sent invites are shown in tables. Information shows workspace id, workspace name, receiver email and name, status of the invite, and date the invitation was sent. Tables also include column filters.
- Status can be accepted, declines, or already joined which means the receiver joined before accepting the invite
- Users can decline or accept a workspace or channel invite, also done in separate web pages.
- Users can see the workspace id, workspace name, channel name, the sender, and sent date of all the invites they received
- Note that the select field has a search bar for easier finding of certain invitations
- All input fields are mandatory



Snickr Manage Invites

localhost:81 / localhost:3307 / snickr.com

Manage Profile Manage Invitations Manage Workspaces Workspace Chat Logout

View The Status of Invites You Sent

- Workspace Invites

Filter Reset

Workspace ID	Workspace Name	Email	First Name	Last Name	Nickname	Status	Date
Workspace ID	Workspace Name	Sent To (Email)	First Name	Last Name	Nickname	Invite Status	Date Sent
8	MySpace	test@aol.com	Jane	Doe	test3	already joined	May-05-2019 08:41 pm
9	Twitter	test@gmail.com	john	doe	test1	accepted	May-05-2019 06:24 pm
9	Twitter	test@aol.com	Jane	Doe	test3	already joined	May-05-2019 06:24 pm
9	Twitter	test2@gmail.com	Jane	Doe	test3	accepted	May-05-2019 06:23 pm
7	Facebook	test@yahoo.com	Jane	Doe	test2	pending	May-05-2019 06:23 pm
7	Facebook	test@gmail.com	john	doe	test1	accepted	May-05-2019 06:23 pm
7	Facebook	test3@gmail.com	John	Does	test5	accepted	May-05-2019 06:23 pm

Snickr Manage Invites

localhost:81 / localhost:3307 / snickr.com

Manage Profile Manage Invitations Manage Workspaces Workspace Chat Logout

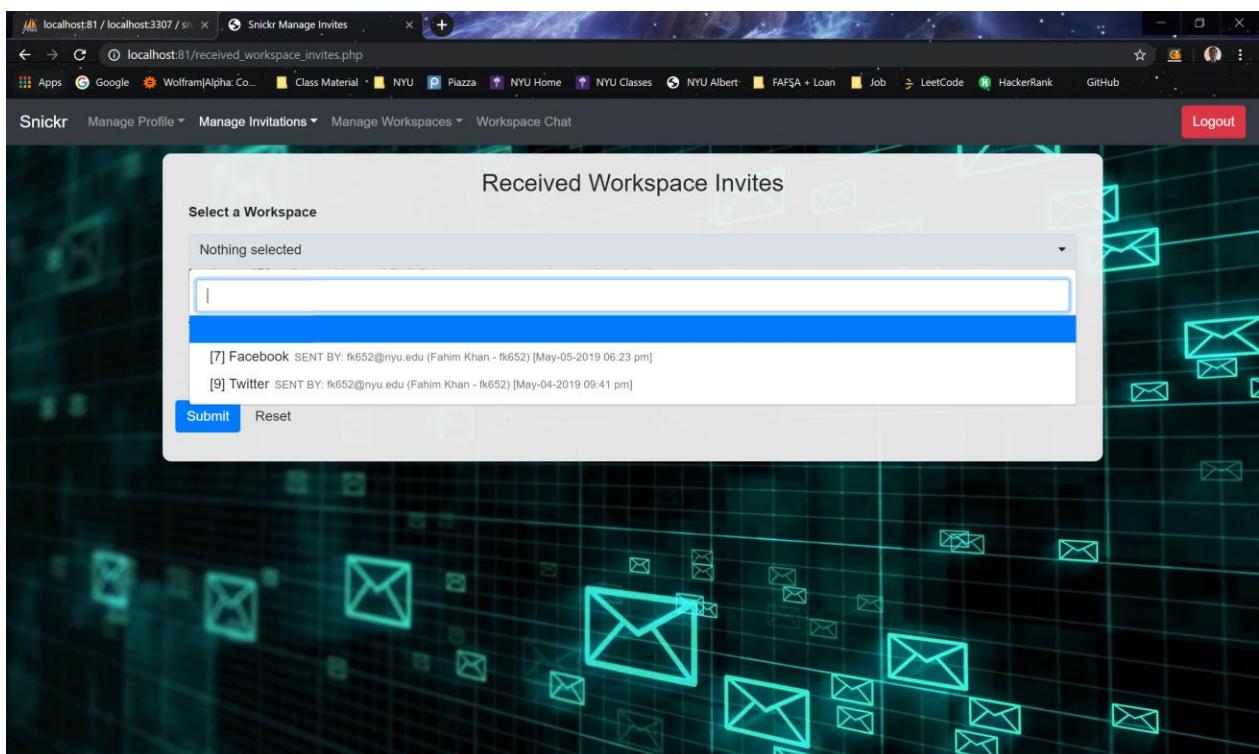
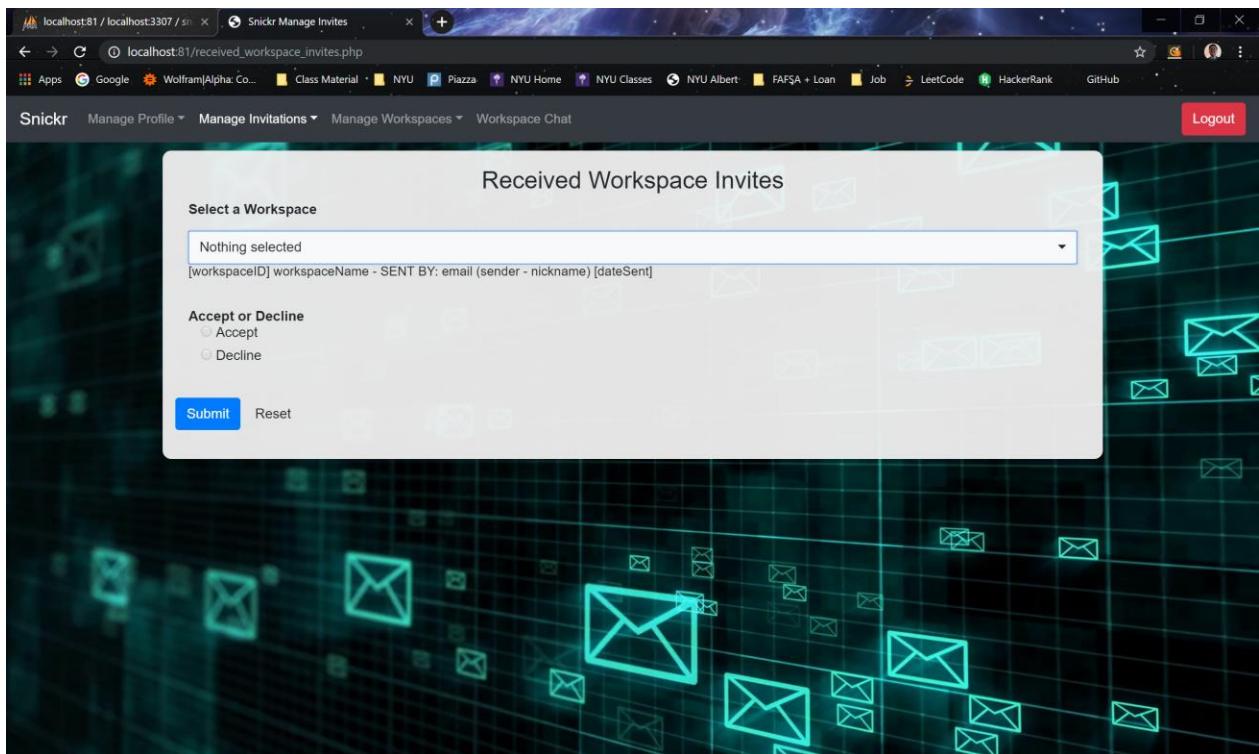
View The Status of Invites You Sent

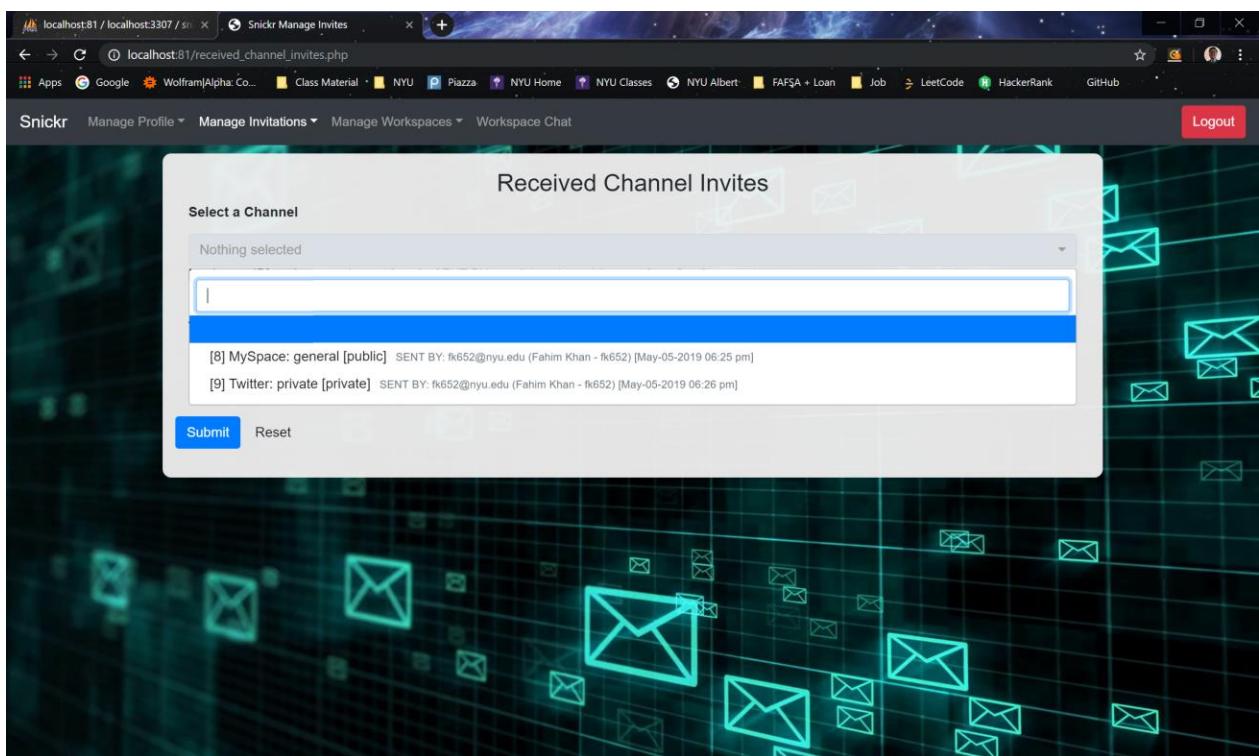
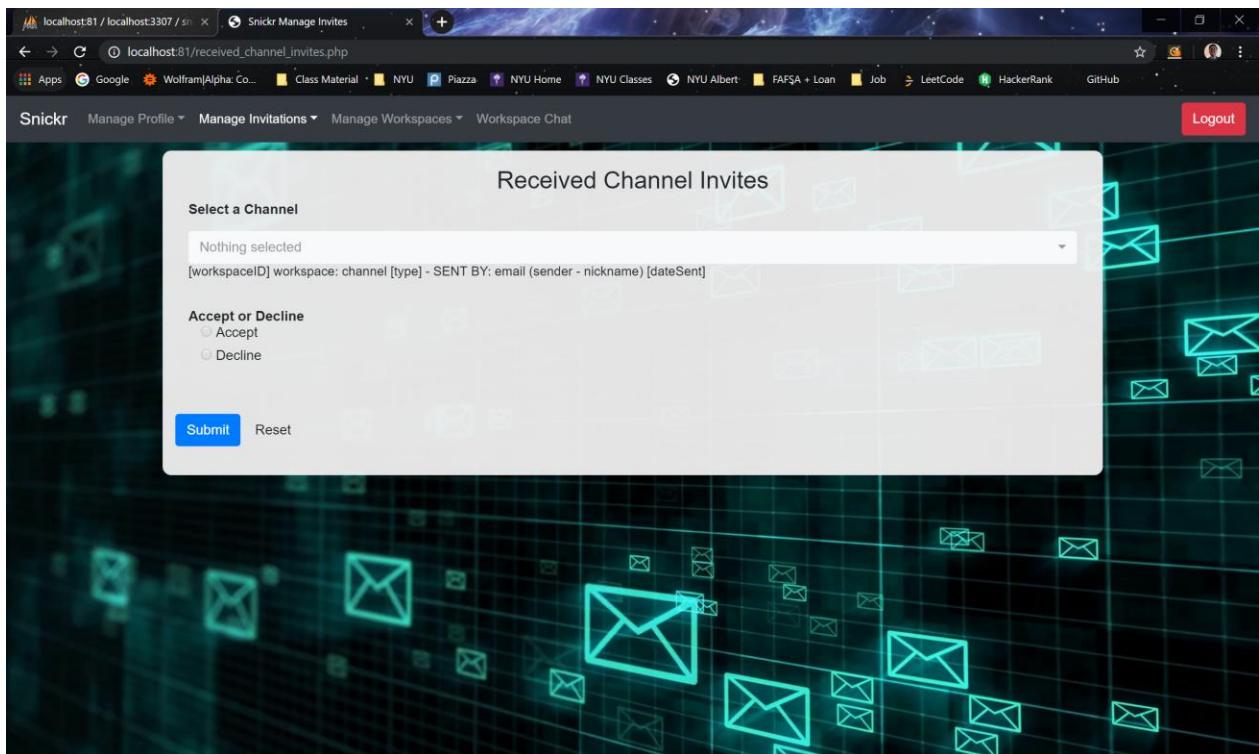
+ Workspace Invites

- Channel Invites

Workspace | Workspace | Channel Name | Email | First Name | Last Name | Nickname | Status | Date

Workspace ID	Workspace Name	Channel Name	Sent To (Email)	First Name	Last Name	Nickname	Invite Status	Date Sent
7	Facebook	direct	test2@gmail.com	Jane	Doe	test3	pending	May-08-2019 03:45 pm
8	MySpace	general	test@aol.com	Jane	Doe	test3	accepted	May-05-2019 08:41 pm
9	Twitter	private	test@aol.com	Jane	Doe	test3	accepted	May-05-2019 08:36 pm
9	Twitter	private	test@yahoo.com	Jane	Doe	test2	pending	May-05-2019 06:26 pm
9	Twitter	private	test@aol.com	Jane	Doe	test3	accepted	May-05-2019 06:26 pm
9	Twitter	private	test2@gmail.com	Jane	Doe	test3	pending	May-05-2019 06:26 pm





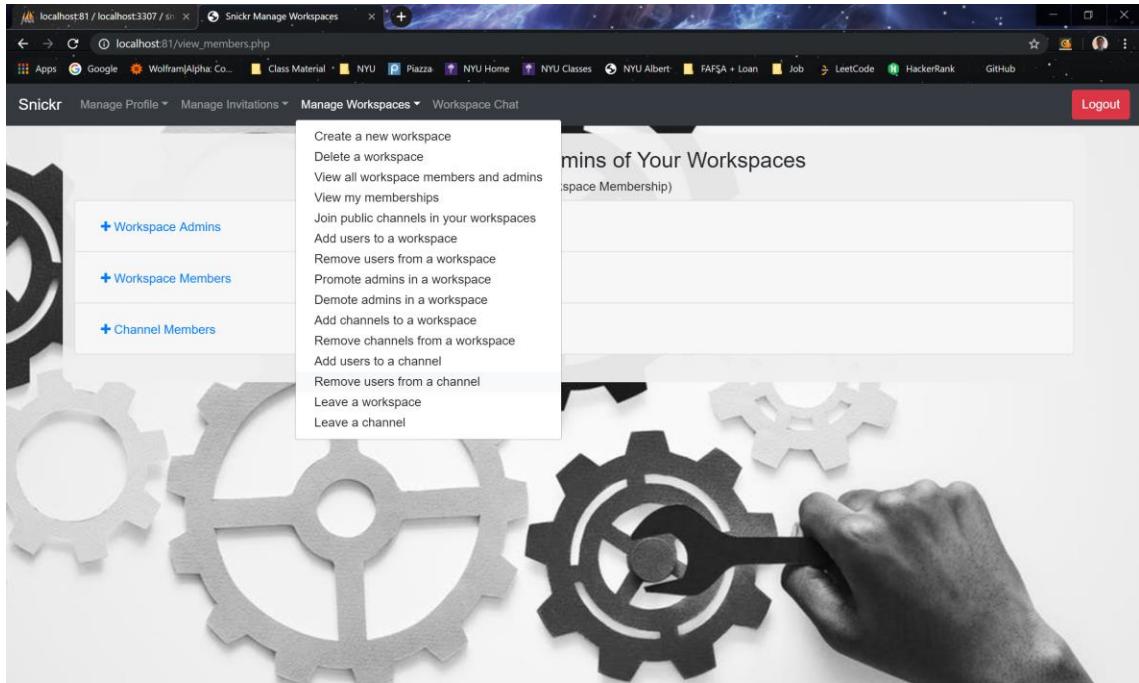
Workspace and Channel Management

**(Note that some data may differ in the images due to using different accounts)*

- Users can do all their workspace and channel management options here
- Create a new workspace
 - Need to include a workspace name and description
 - Any user of Snickr can make one
 - The owner gets automatically added as both an admin and member of the workspace, which can't be revoked
- Delete a workspace
 - Must have ownership privilege
 - Will also remove all channels, members, and admins, messages, from the database
- View all workspace/channel members and admins
 - The page shows the information in tables, similar to invites. These tables also have column filters.
 - Workspace, channels, and admins are shown separately
- View user's workspace/channel memberships and admin privileges
 - The page shows the information in tables, similar to invites. These tables also have column filters.
 - Workspace, channel, and admin is shown separately
- Join a public channel
 - Can join a public channel of any workspaces you are apart of
 - Can't join a channel you are already apart of
 - If you join this way, any invites to that public channel get their status changed to 'already joined'
 - Requires workspace membership privilege
- Add users to a workspace
 - Choose a workspace and a Snickr user to invite to your workspace
 - Must have workspace admin privilege
 - Checks will be made to make sure existing members can't receive more invites

- Remove users from a workspace
 - Choose a workspace member to remove
 - Must have workspace admin privilege
 - The user is removed from workspace and all channel memberships they were part of in that workspace. Their admin privilege is also removed.
 - Can't remove the owner of a workspace
 - Any channels they own will also be removed
 - Their messages are still kept for record purposes
- Promote admins in a workspace
 - Promote regular users to admin
 - Requires workspace ownership privilege
 - Owners are already admins
- Demote admins in a workspace
 - Demote admins back to regular users
 - Requires workspace ownership privilege
 - Owners can't demote themselves
- Add channels
 - Select a workspace, enter a channel name, and select a channel type
 - Requires workspace admin privilege
 - Channel names must be unique and will be checked to ensure this
 - The person who makes the channel becomes the owner
- Remove channels
 - Requires workspace admin privilege
 - Admins can remove other admin's channels
 - All messages in that channel will also be gone
 - All members of that channel are also removed
 - The owner is automatically entered as a member of the channel
- Add users to a channel
 - There is a check to make sure more than one person can't be invited to a direct channel
 - Requires admin privilege

- An admin needs to invite other admins to the channel
 - If the receiver isn't a workspace member, they become one upon accepting. So this is an alternate way to add members to a workspace
 - The workspace owner must be invited to the channel too
- Remove users from a channel
 - Requires admin privilege
 - Can't remove the owner of the channel
 - Can remove the owner of the workspace, just as how the owner must be invited in the first place
 - Their messages will still be kept for record purposes
- Leave a workspace
 - Can leave any workspace you are a member of
 - Can't leave if you are the owner
- Leave a channel
 - Can leave any channel you are a member of
 - Can't leave if you are the owner
 - If you leave a direct channel, the channel owner can now choose to invite someone else
- Note that select fields in many of these web pages include a search bar for easier finding of certain options
- All input fields for all these web pages are mandatory



A screenshot of a web browser window titled "Snickr View Members and Admins of Your Workspaces". The URL in the address bar is "localhost:81 / localhost:3307 / snickr/view_members.php". The page header includes links for "Manage Profile", "Manage Invitations", "Manage Workspaces", and "Workspace Chat", along with a "Logout" button. The main content area is titled "View Members and Admins of Your Workspaces" and includes a sub-instruction "(Requires Workspace Membership)". It features a search bar with fields for "Workspace ID", "Workspace Name", "Email", "First Name", "Last Name", "Nickname", and "Date". Below the search bar is a table with columns: "Workspace ID", "Workspace Name", "Admin Email", "Admin First Name", "Admin Last Name", "Admin Nickname", and "Date Promoted". Two rows of data are shown:

Workspace ID	Workspace Name	Email	First Name	Last Name	Nickname	Date
Workspace ID	Workspace Name	Admin Email	Admin First Name	Admin Last Name	Admin Nickname	Date Promoted
8	MySpace	fk652@nyu.edu	Fahim	Khan	fk652	May-04-2019 08:08 pm
10	Otherspace	test@yahoo.com	Jane	Doe	test2	May-08-2019 03:06 pm

The sidebar on the left contains sections for "Workspace Admins", "Workspace Members", and "Channel Members".

localhost:81 / localhost:3307 / snickr Manage Workspaces

+ Workspace Admins

- Workspace Members

Filter Reset

Workspace ID	Workspace Name	Email	First Name	Last Name	Nickname	Date
Workspace ID	Workspace Name	Member Email	Member First Name	Member Last Name	Member Nickname	Date Joined
8	MySpace	test@yahoo.com	Jane	Doe	test2	May-08-2019 03:05 pm
8	MySpace	test@gmail.com	john	doe	test1	May-05-2019 08:55 pm
8	MySpace	test@aol.com	Jane	Doe	test3	May-05-2019 08:42 pm
8	MySpace	test3@gmail.com	John	Does	test5	May-05-2019 07:44 pm
8	MySpace	fk652@nyu.edu	Fahim	Khan	fk652	May-04-2019 08:08 pm
10	Otherspace	test@yahoo.com	Jane	Doe	test2	May-08-2019 03:06 pm

+ Channel Members

localhost:81 / localhost:3307 / snickr Manage Workspaces

Snickr Manage Profile Manage Invitations Manage Workspaces Workspace Chat Logout

View Members and Admins of Your Workspaces

(Requires Workspace Membership)

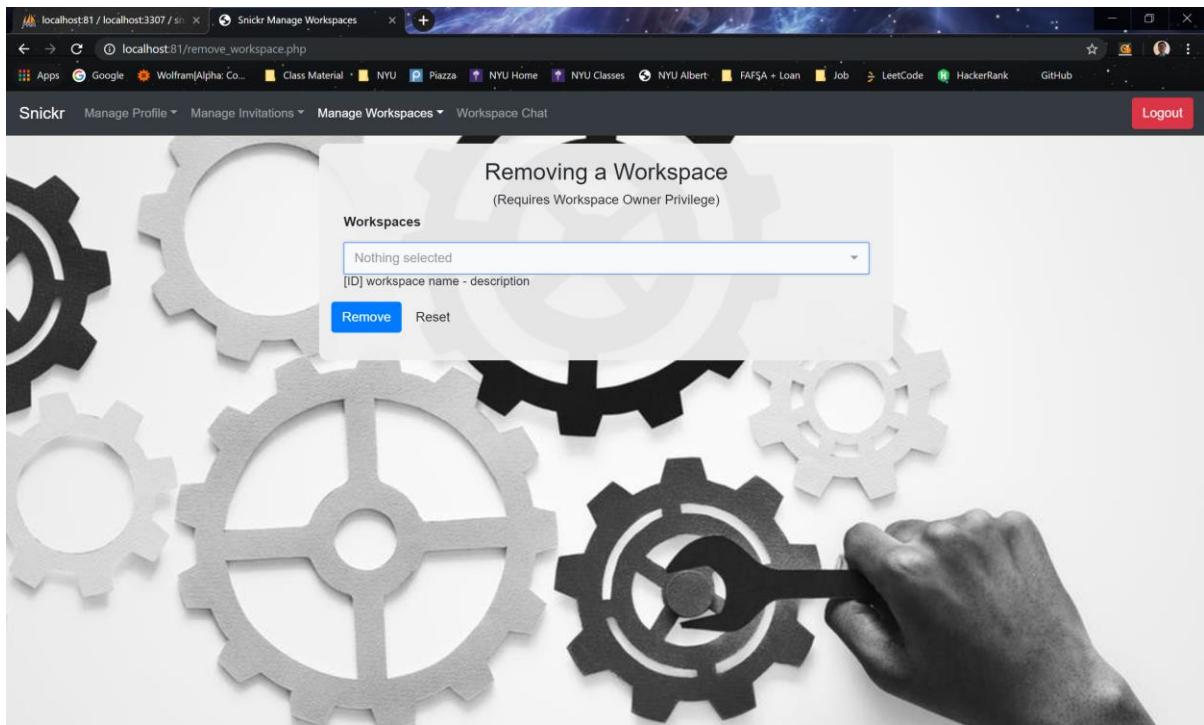
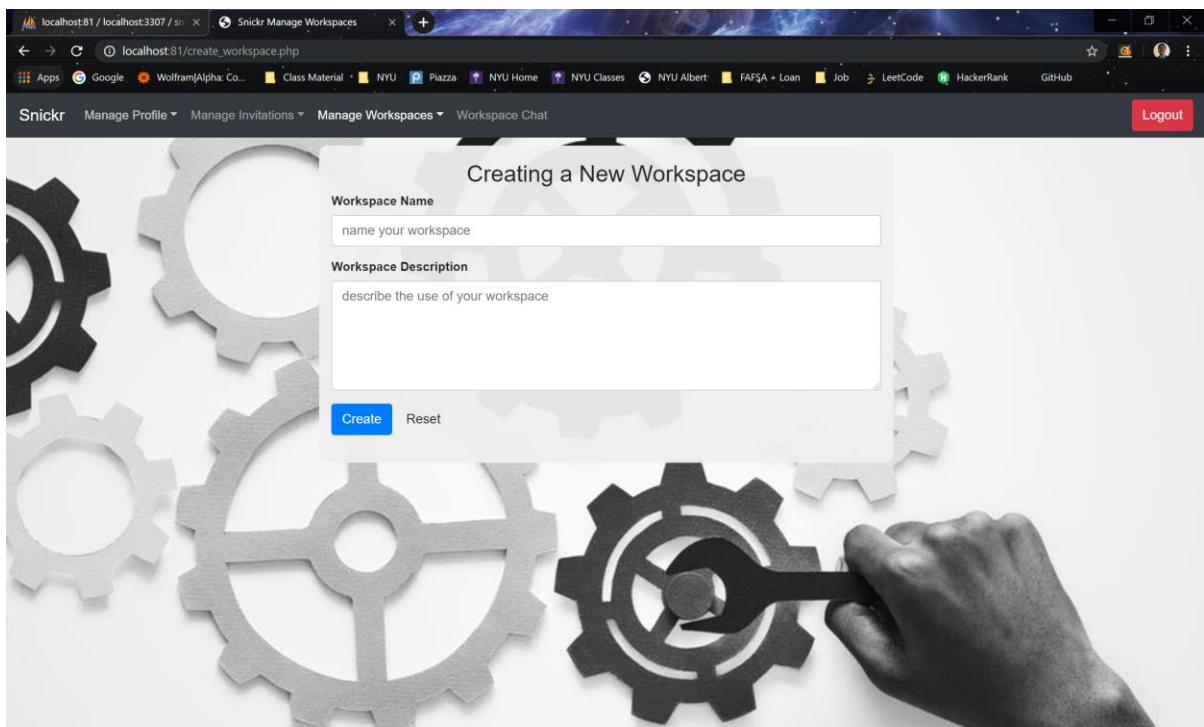
+ Workspace Admins

+ Workspace Members

- Channel Members

Filter Reset

Workspace	Workspace	Channel Na	Channel Typ	Email	First Name	Last Name	Nickname	Date
Workspace ID	Workspace Name	Channel Name	Channel Type	Member Email	Member First Name	Member Last Name	Member Nickname	Date Joined
8	MySpace	general	public	test@gmail.com	john	doe	test1	May-05-2019 08:55 pm
8	MySpace	general	public	test3@gmail.com	John	Does	test5	May-05-2019 08:18 pm
8	MySpace	general	public	fk652@nyu.edu	Fahim	Khan	fk652	May-05-2019 10:18 am



localhost:81 / localhost:3307 / snickr Manage Workspaces

localhost:81/remove_workspace.php

Snickr Manage Profile Manage Invitations Manage Workspaces Workspace Chat Logout

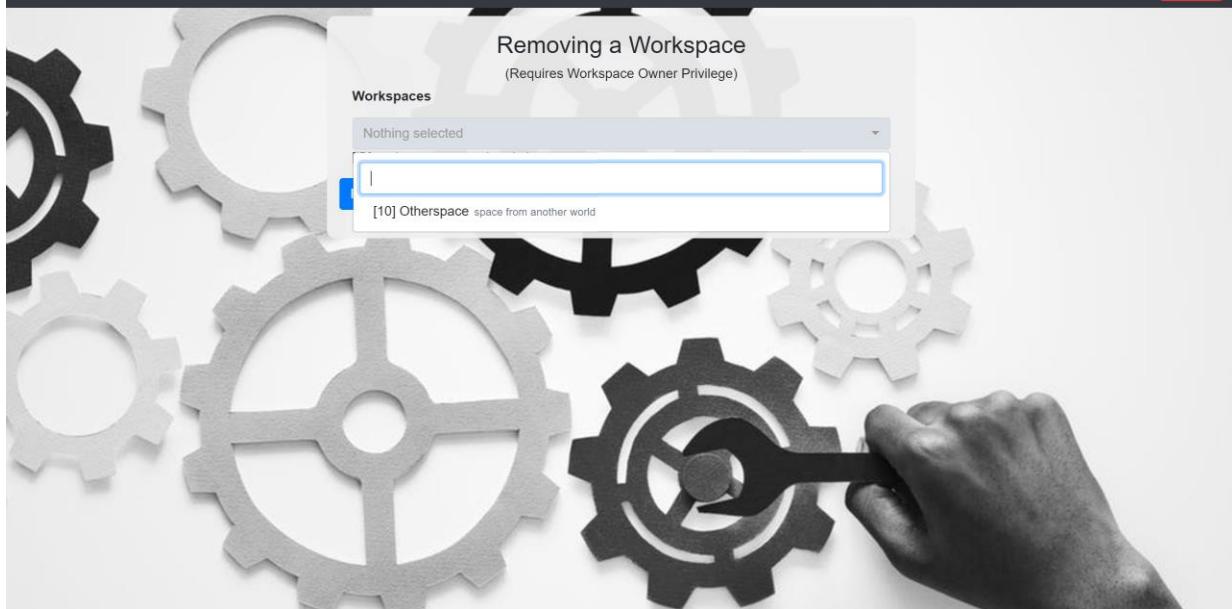
Removing a Workspace

(Requires Workspace Owner Privilege)

Workspaces

Nothing selected

[10] Otherspace space from another world



localhost:81 / localhost:3307 / snickr Manage Workspaces

localhost:81/view_my_memberships.php

Snickr Manage Profile Manage Invitations Manage Workspaces Workspace Chat Logout

View Your Membership and Admin Privileges

(Requires Workspace Membership)

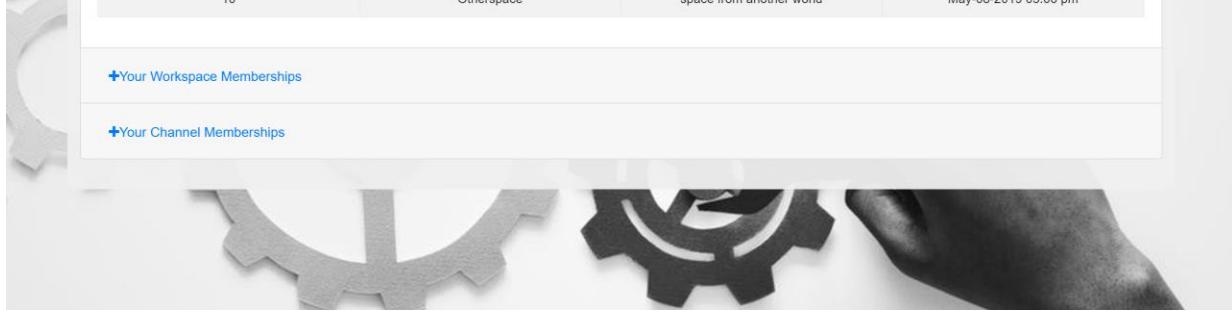
→ Your Workspace Admin Privileges

Filter Reset

Workspace ID	Workspace Name	Workspace Description	Date
10	Otherspace	space from another world	May-08-2019 03:06 pm

+ Your Workspace Memberships

+ Your Channel Memberships



localhost:81 / localhost:3307 / snickr / Snickr Manage Workspaces

← → C O localhost:81/view_my_memberships.php

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Snickr Manage Profile Manage Invitations Manage Workspaces Workspace Chat Logout

View Your Membership and Admin Privileges

(Requires Workspace Membership)

+Your Workspace Admin Privileges

-Your Workspace Memberships

Filter Reset

Workspace ID	Workspace Name	Workspace Description	Date
8	MySpace	test2	May-08-2019 03:05 pm
10	Otherspace	space from another world	May-08-2019 03:06 pm

+Your Channel Memberships



localhost:81 / localhost:3307 / snickr / Snickr Manage Workspaces

← → C O localhost:81/view_my_memberships.php

Apps Google Wolfram|Alpha: Co... Class Material NYU Piazza NYU Home NYU Classes NYU Albert FAFSA + Loan Job LeetCode HackerRank GitHub

Snickr Manage Profile Manage Invitations Manage Workspaces Workspace Chat Logout

View Your Membership and Admin Privileges

(Requires Workspace Membership)

+Your Workspace Admin Privileges

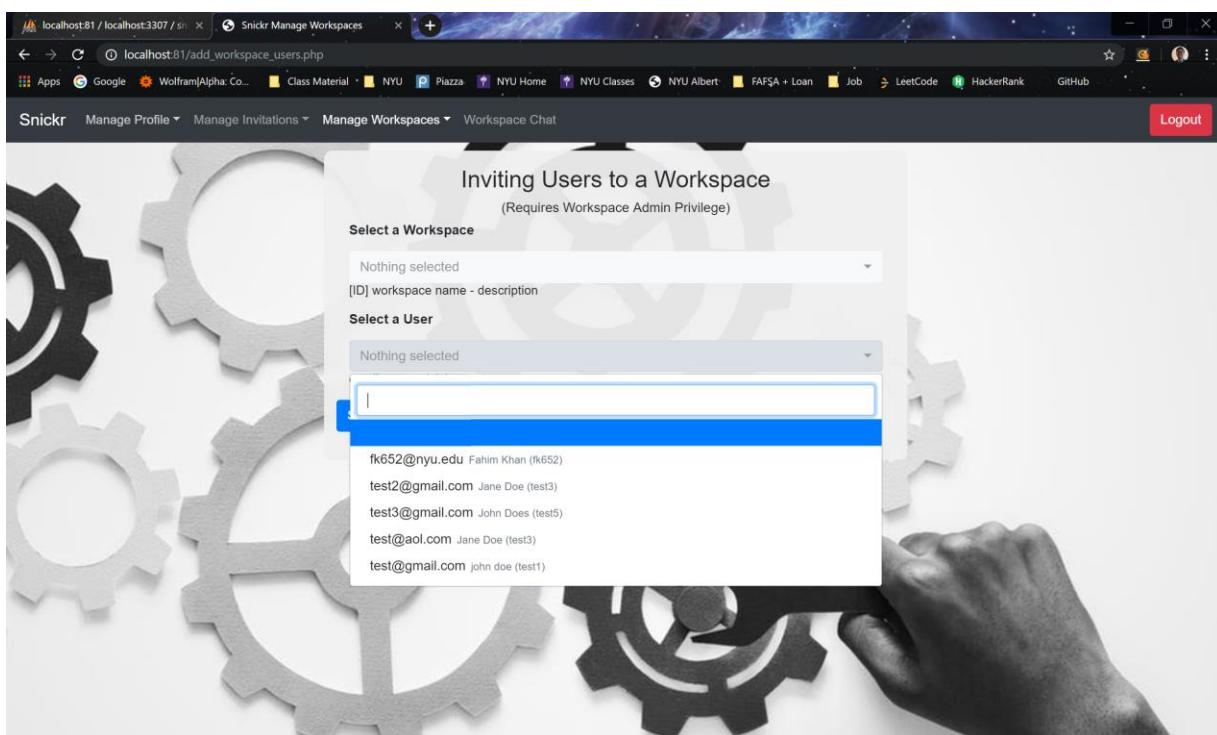
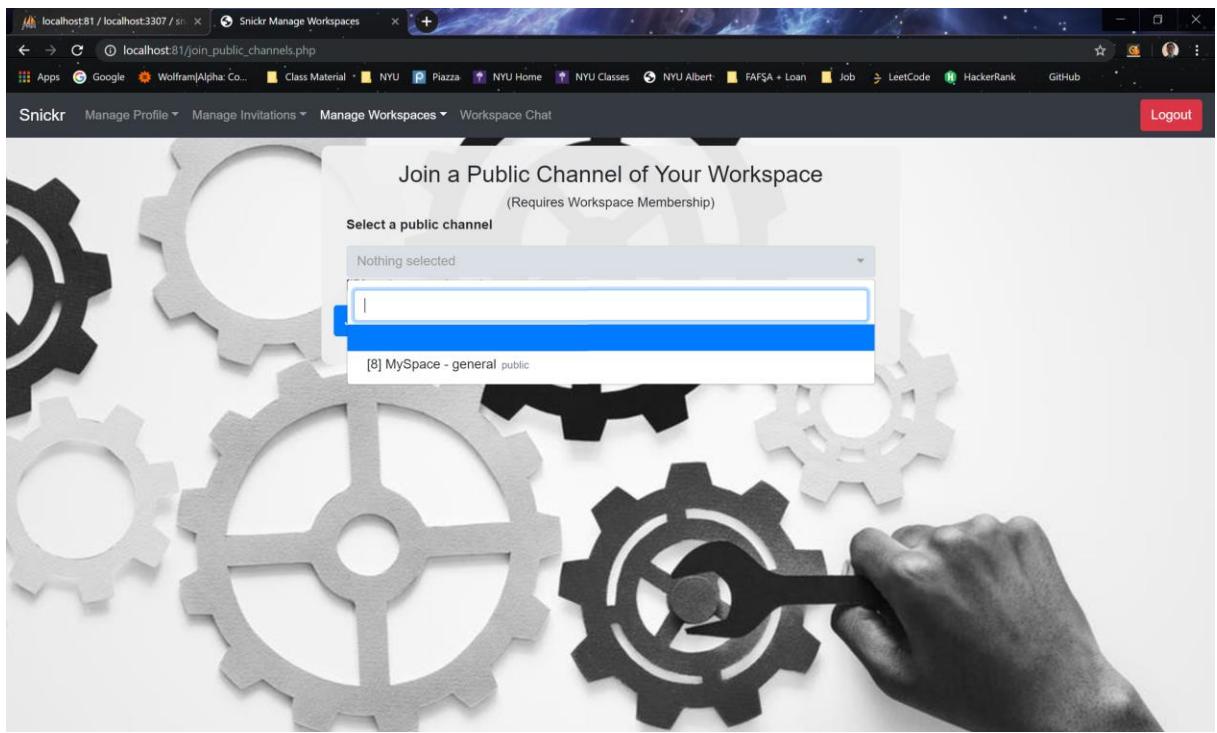
+Your Workspace Memberships

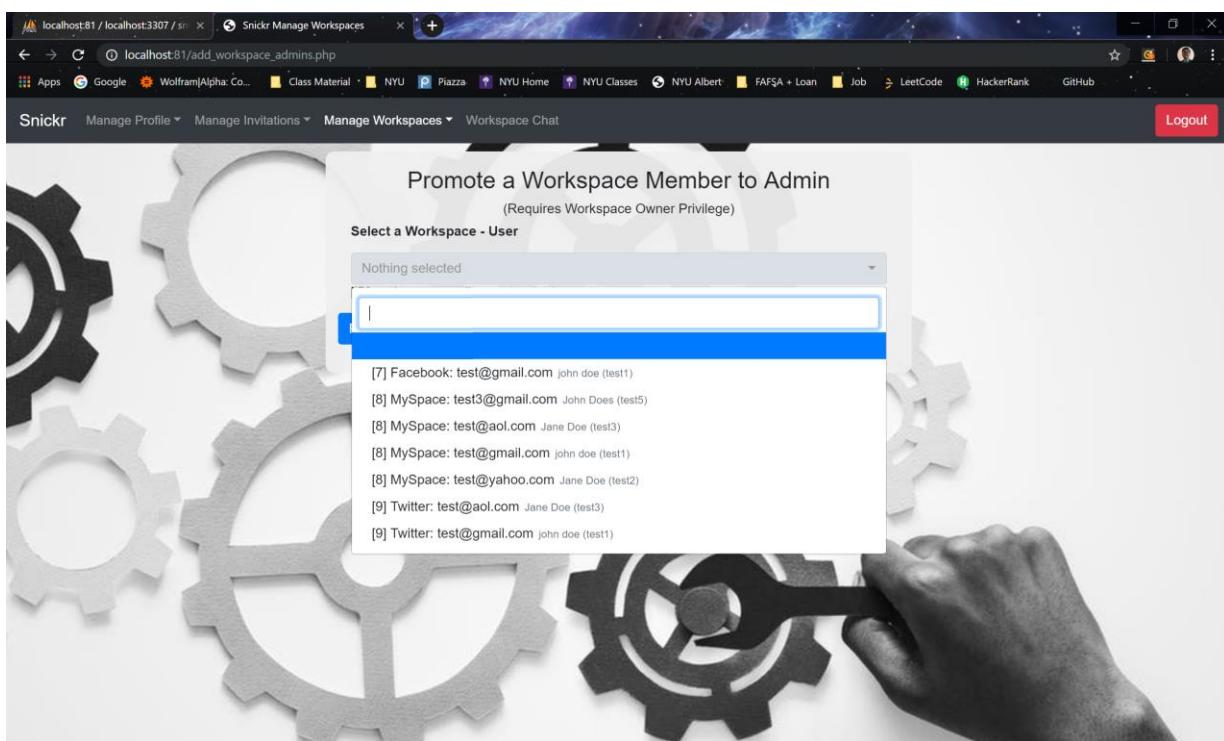
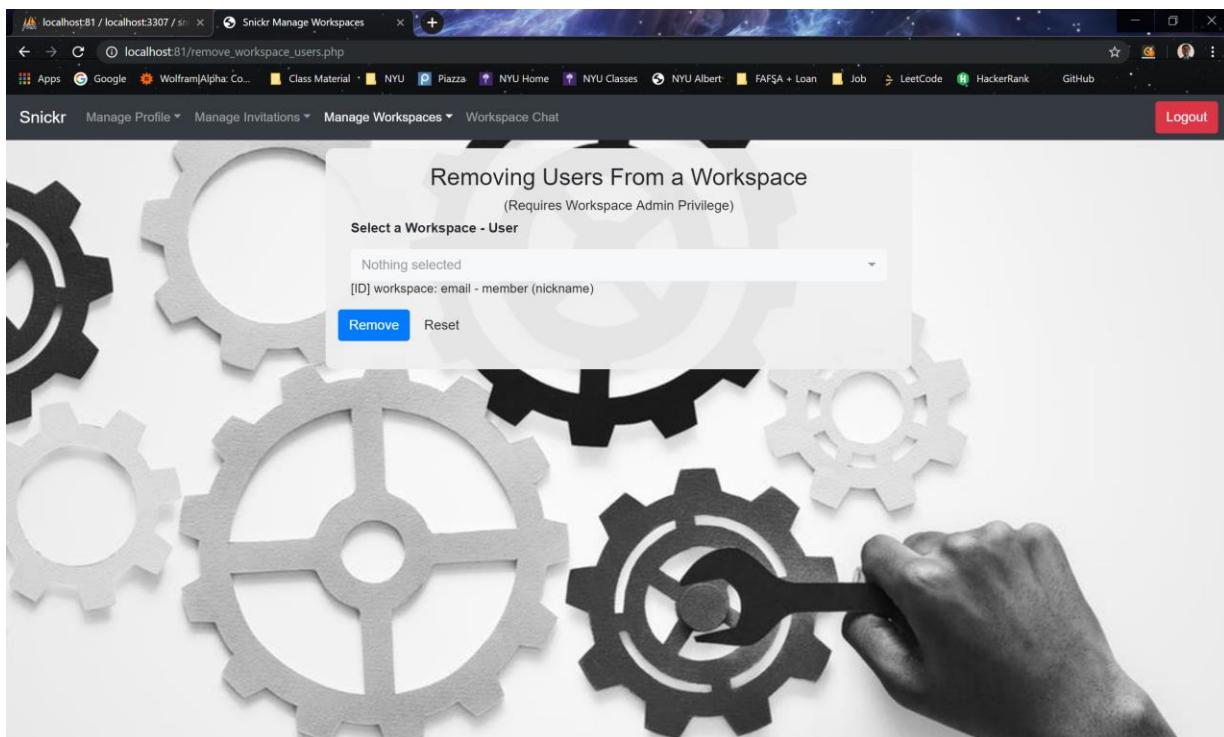
-Your Channel Memberships

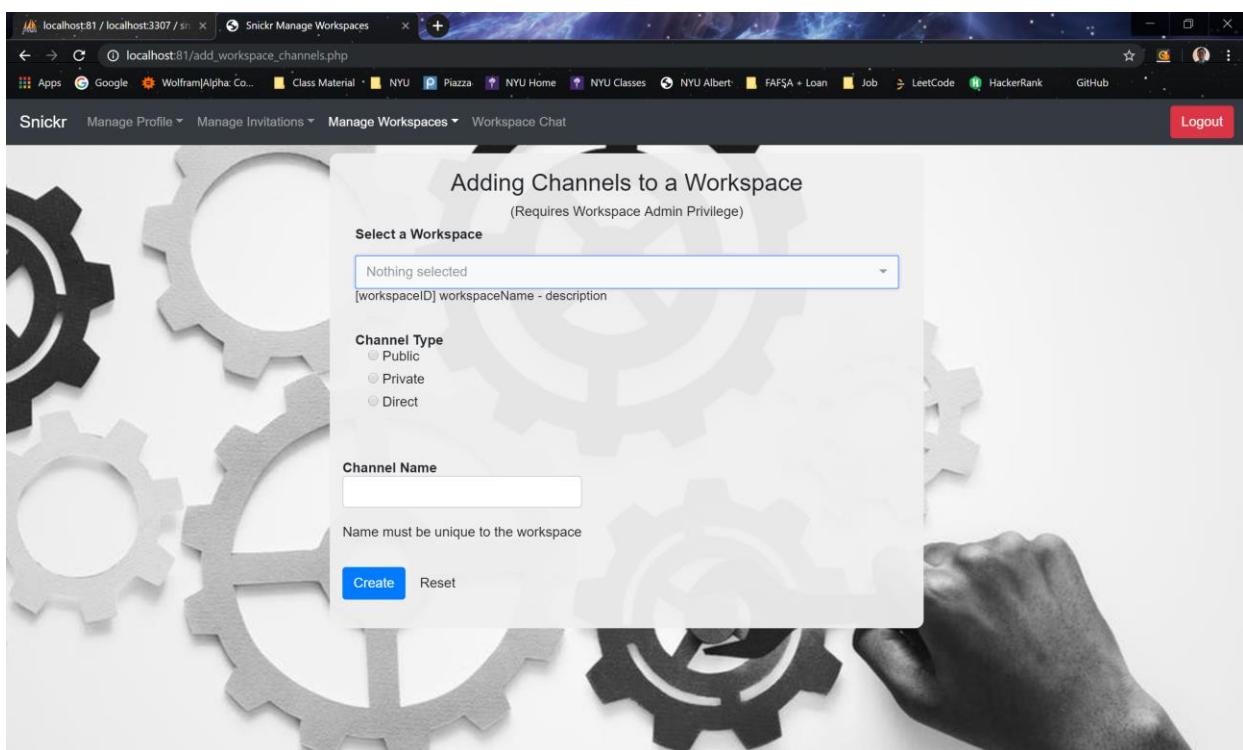
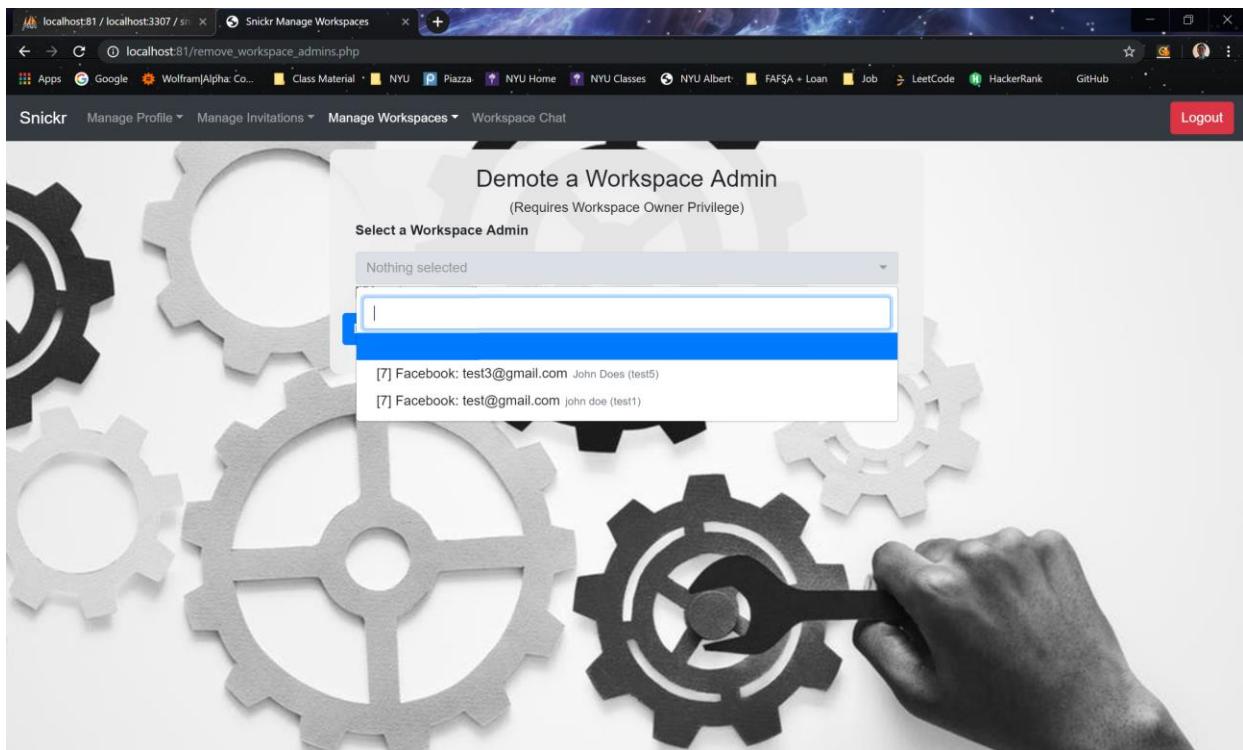
Filter Reset

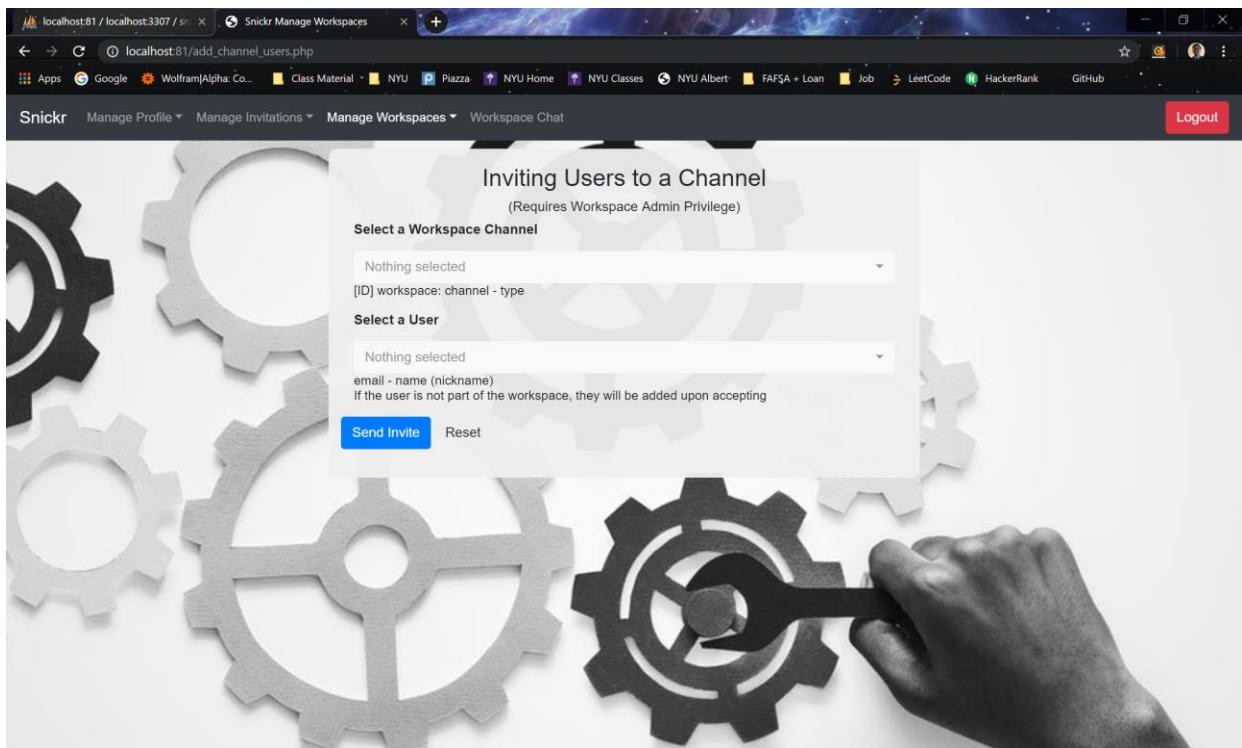
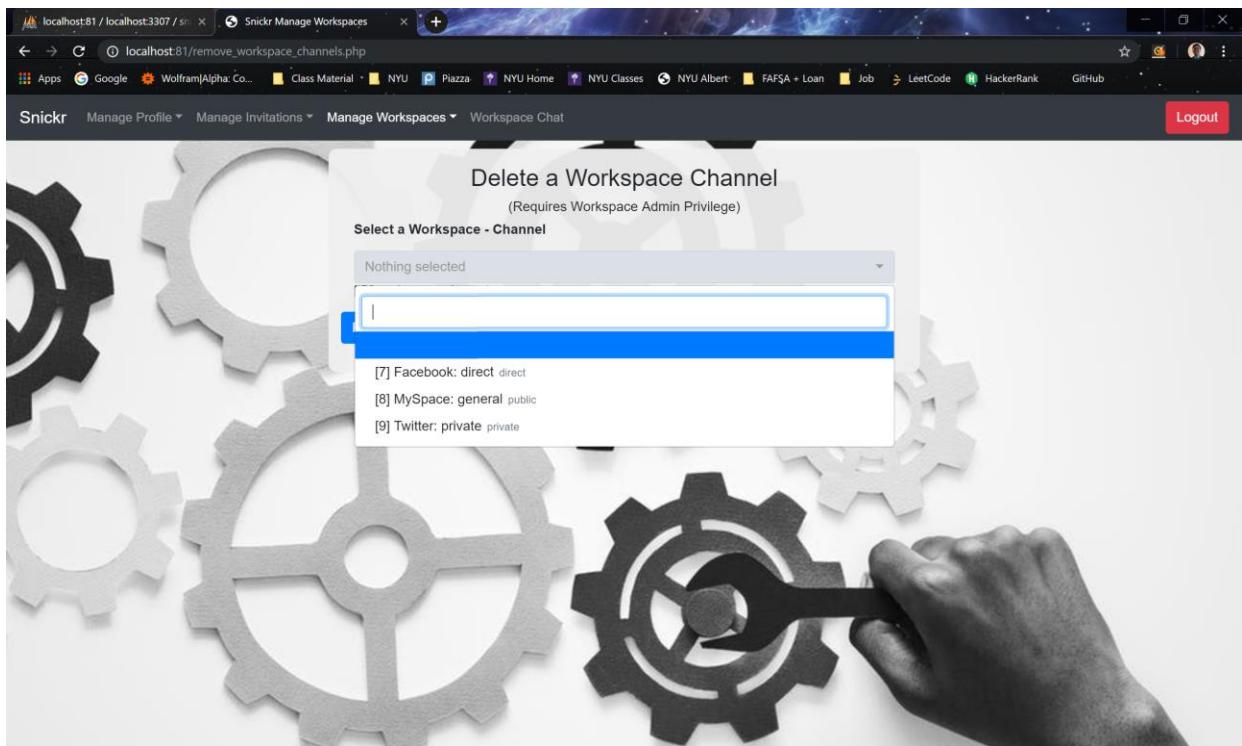
Workspace ID	Workspace Name	Channel Name	Channel Type	Date
10	Otherspace	general world	public	May-08-2019 11:23 pm

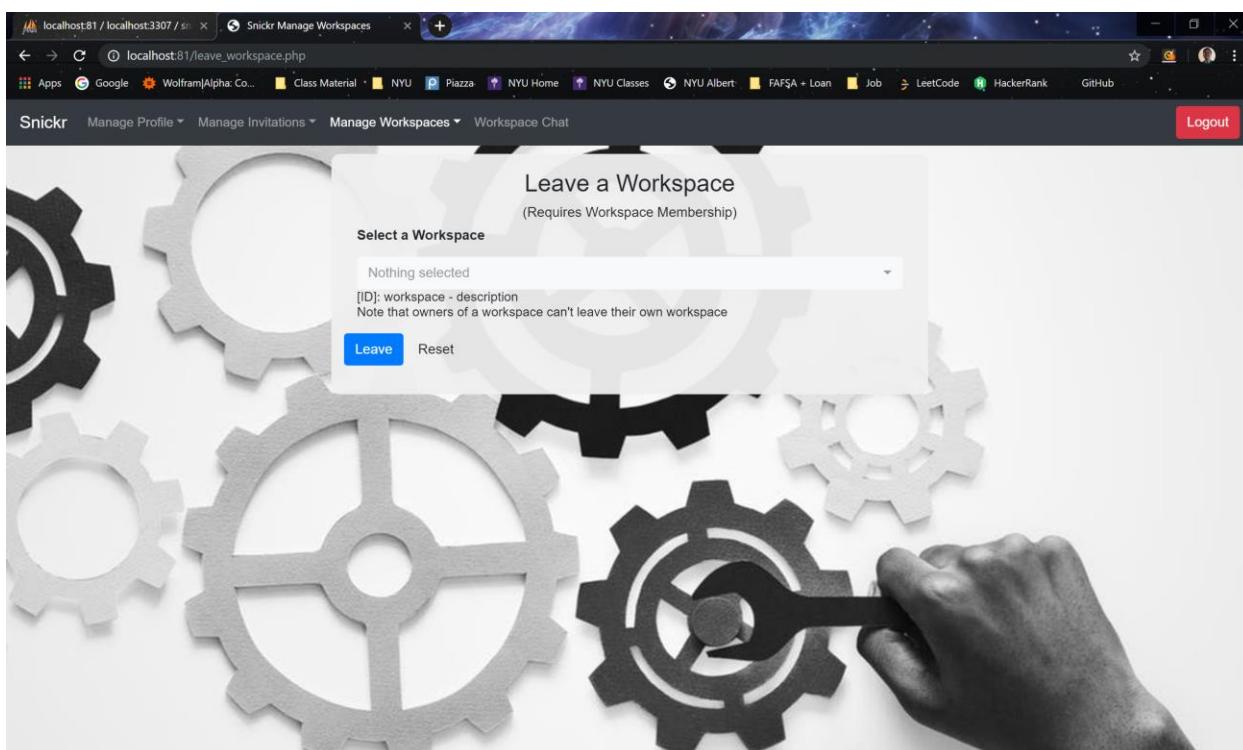
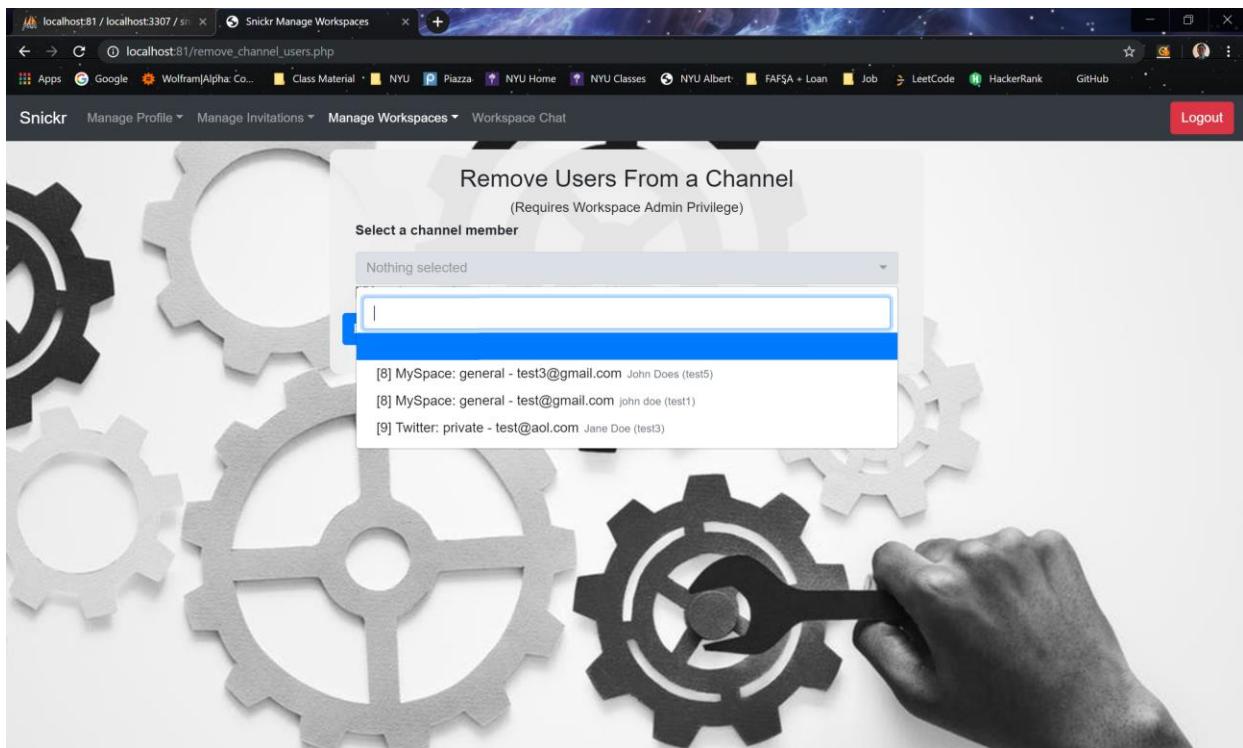


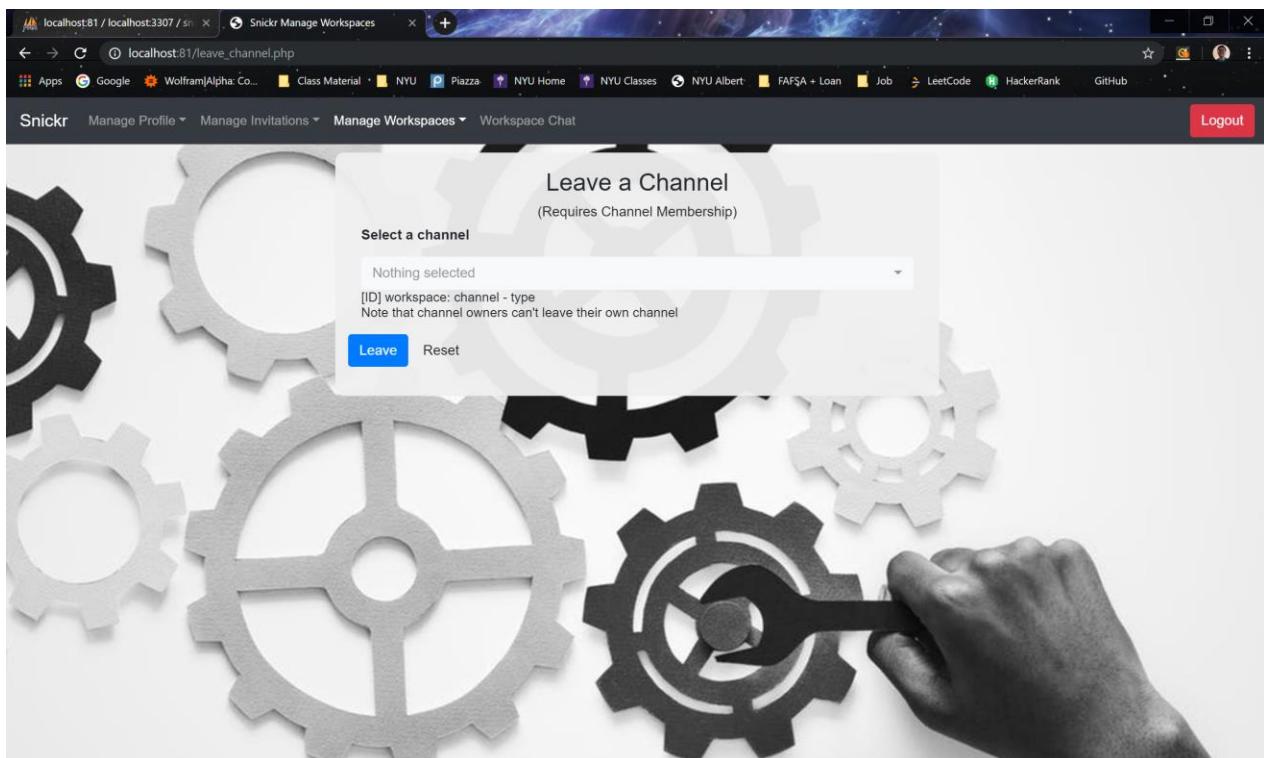






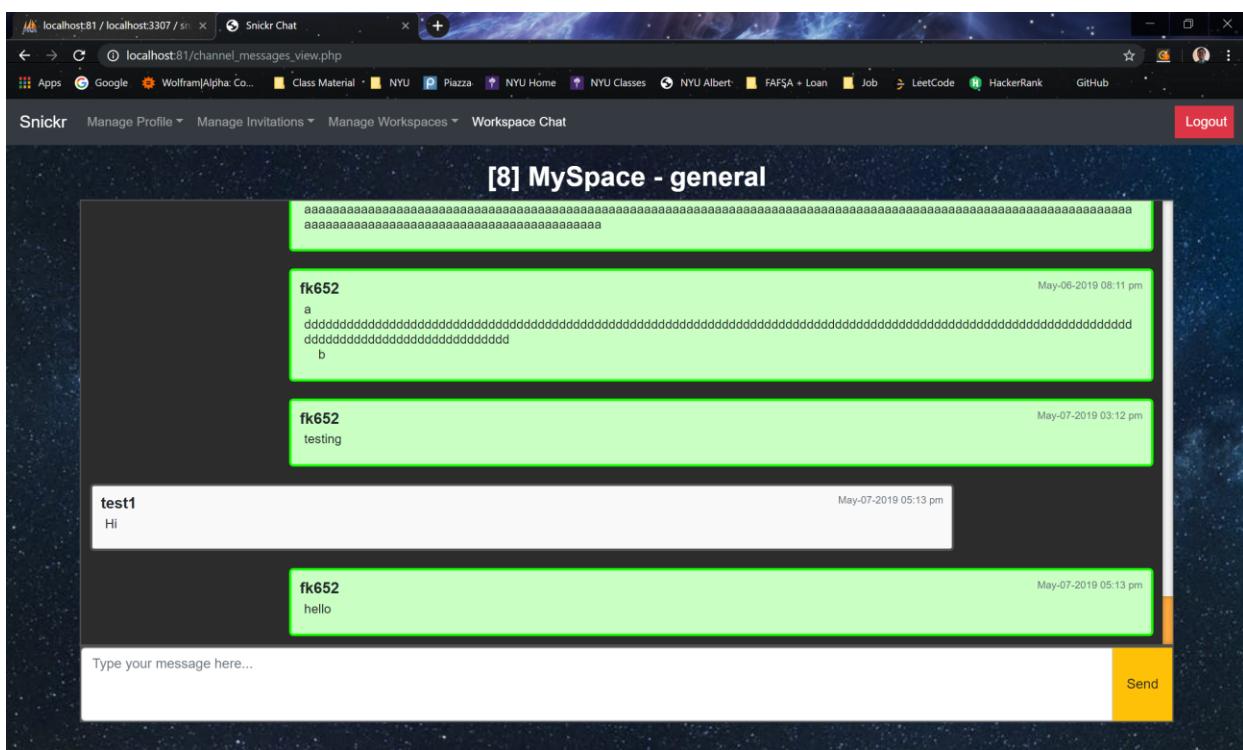
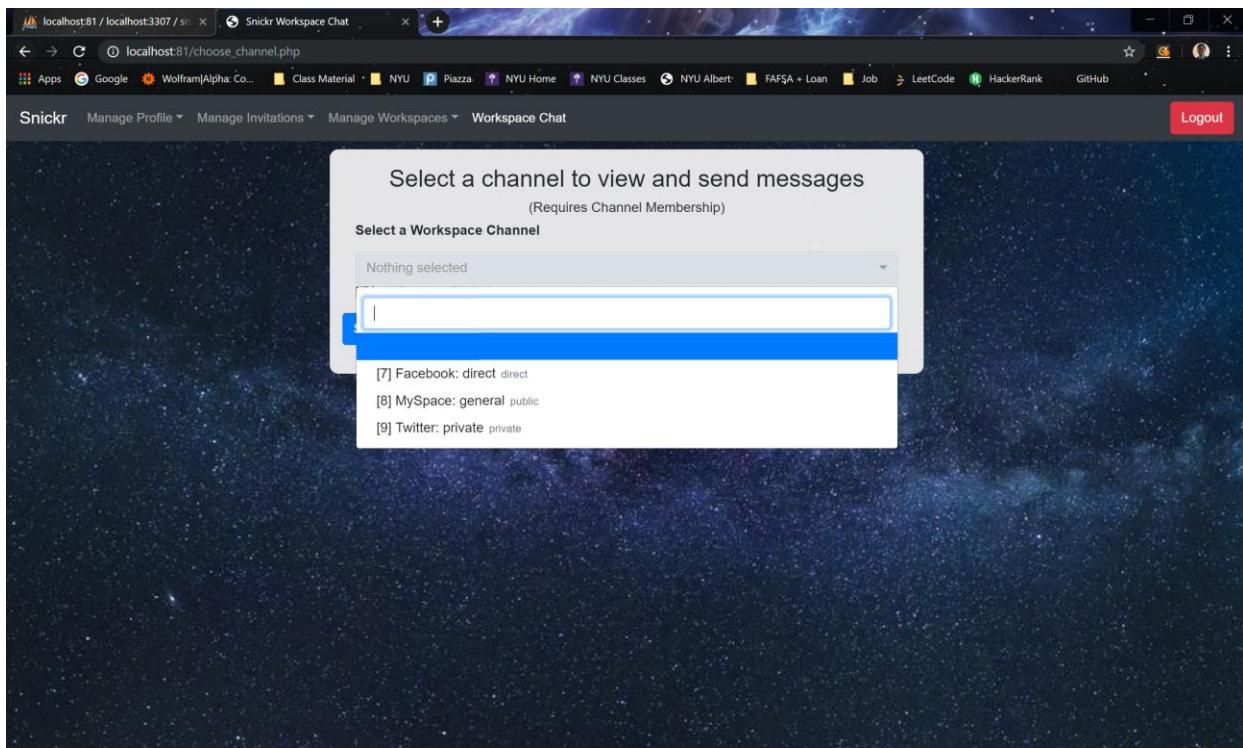






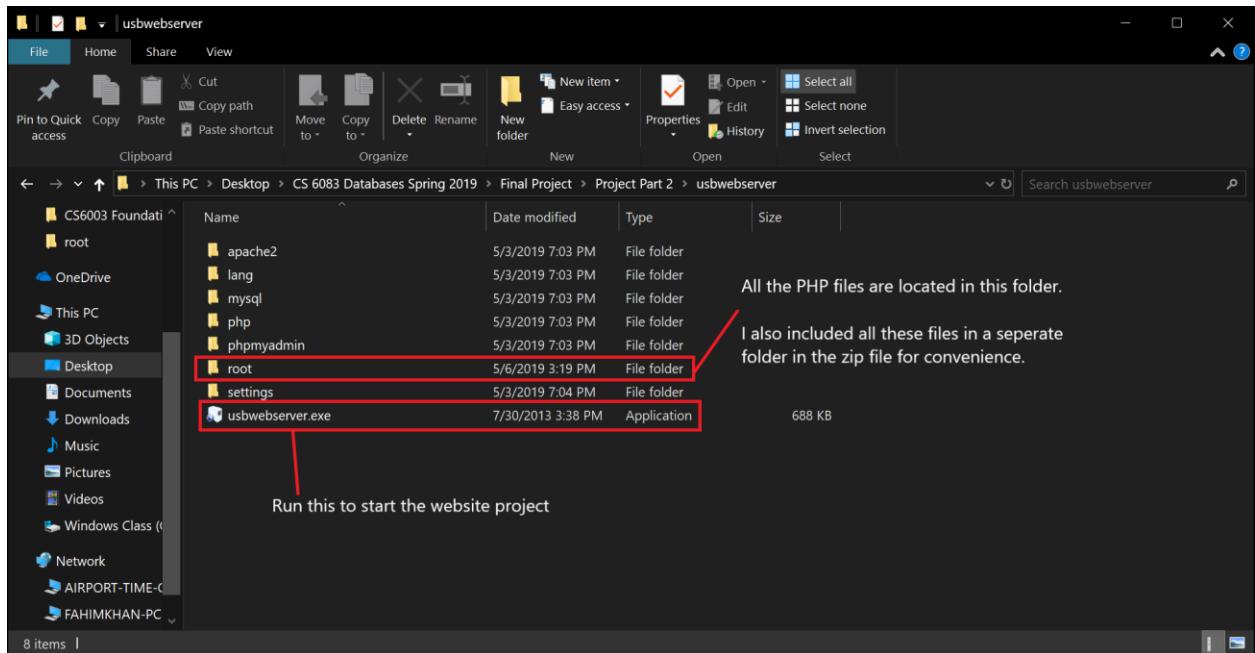
Viewing and Sending Messages

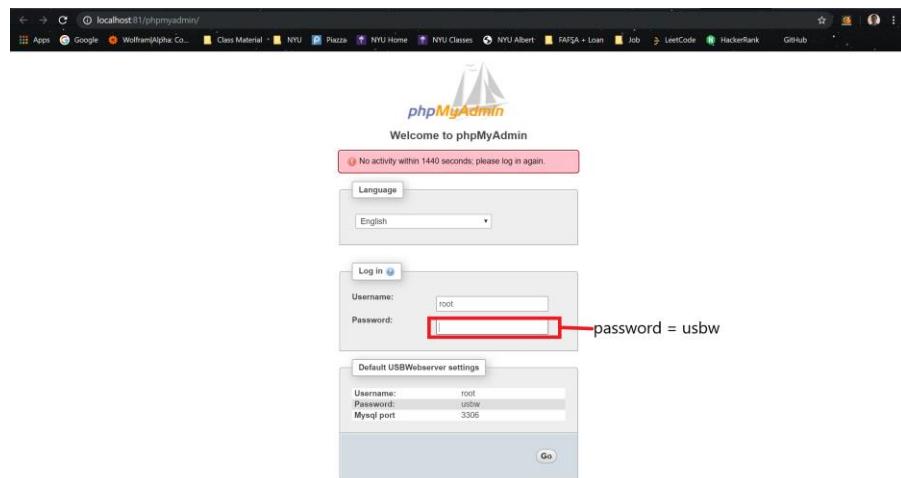
- Users must first select a channel to chat in. Then they are redirected to the message viewing page with the channel and workspace id passes on as session variables.
- The chat is updated in real time whenever new messages are sent.
- The user can enter messages and send them, which also scrolls them down to the bottom automatically.
- The user's messages are shown in green and aligned to the right. Everyone else's messages are shown in gray. This models phone text messaging.
- Messages include the nickname of the poster, the date the message was posted, and the message.
- The message can include new line and tab characters.
- Users must press send to send the message since enter is used for new lines in the message



Instructions on accessing the website project

- no installation needed
- everything is in the usbwebserver folder in the zip file
- can instantly run the whole website project, locally hosted
- so anyone can test this out themselves





All the SQL data and table structures are here. Feel free to go through them.

All passwords are password123

Or make your own accounts to test things out with

Instructions on using and navigating the website is given in this report, as previously shown

Test accounts with data:
 fk652@nyu.edu
 test@gmail.com
 test@yahoo.com
 test@aol.com

Look at the phpMyAdmin users tables for the other user emails

