# Final Report

### Abstract:

We were asked to research, design, and implement a database that could become a real world application. The was done by learning about database management techniques in class and through individual research. The database design was selected from several possible applications using EER, relational, UML and Sequential diagrams. The database was created using Python, SQL, PHP, and HTML languages. XAMPP was picked in order to work with mySQL, PHP, Python and Apache software. The database was designed to fulfill the needs of a social media website. Specifically to store the minimal amount of information of our users, their posts, their threads, and the relationships between them. While the website turned out functional, it did not end up with all the promised functionalities from our proposal due to time constraints. A negative of the design is that once an anonymous user creates a post, they cannot delete it after a session. Also, the website has some bugs like for instance it allows you to follow yourself, so these are some simple checks that should be discussed and kept in mind for future iterations. Additionally, the design of the website could use some work to look more modern and visually appealing. The system itself has several interesting properties, posts are identified by their by their links, primary key, so no duplicates of posts can be made. This makes every post unique and very powerful.

# Introduction:

Social media is a hub that promotes the creation and sharing of information to anyone in your circle and beyond. Lately social media has been monopolized by two big players, Facebook, Instagram (owned by Facebook), and Twitter. This has given these companies huge power. Information can be saved and manipulated to their liking without the fear of retaliation. The solution is to make our own social media platform, raising competition in the market while giving more power to the user. The motivation of this is to allow the user to feel at ease when using social media.

# Proposed solution:

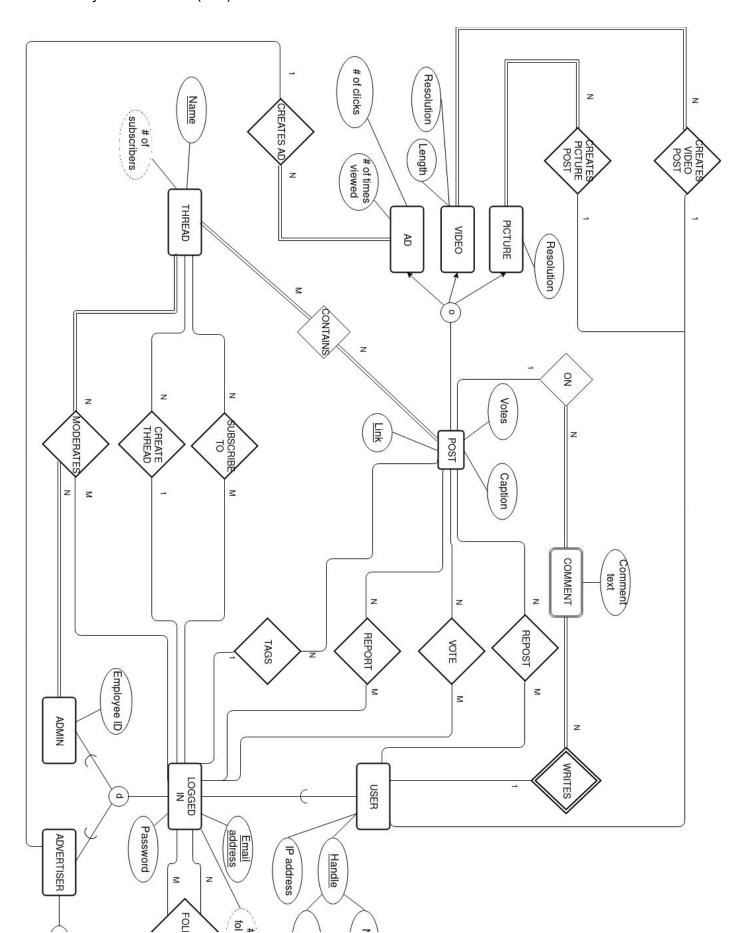
Our project aims to be a good alternative for other social media apps that provides a flexible experience and functionality. Our hope is it will increase awareness surrounding this issue of privacy and provide more competition in the social media space

# Project Design:

The database was built to support 4 types of users: anonymous, logged in, admins, and advertisers.

- Anonymous users are able to view posts on threads, create posts on threads, and repost content to other threads.
- Logged in users have all the abilities anonymous users have as well as several more features. They can follow other logged in users and to subscribe to threads, allowing them to see the content posted by these groups. Logged in users have personal threads which is where the content of who their following and their subscribed threads appear. Logged in users can also vote on posts, comment on the posts, report inappropriate posts, and tag posts to more easily find old posts. These users are also able to create new threads and moderate them.
- In the modern online environment advertisers want to seem less corporate. Our design allows for them to have all the abilities of a logged in user, allowing them to interact more closely with consumers. On top of the abilities normal logged in users, advertisers can create ad posts which will have additional information such as the number of times the ad was clicked and the total number of times viewed. These ads were designed so the website would be able to have these ads appear regularly on threads.
- Admins are employees of the website. They are automatically moderators of every thread, including the ability to ban users from threads and delete posts. They can also see the number of flags a post has, and see the most flagged posts.

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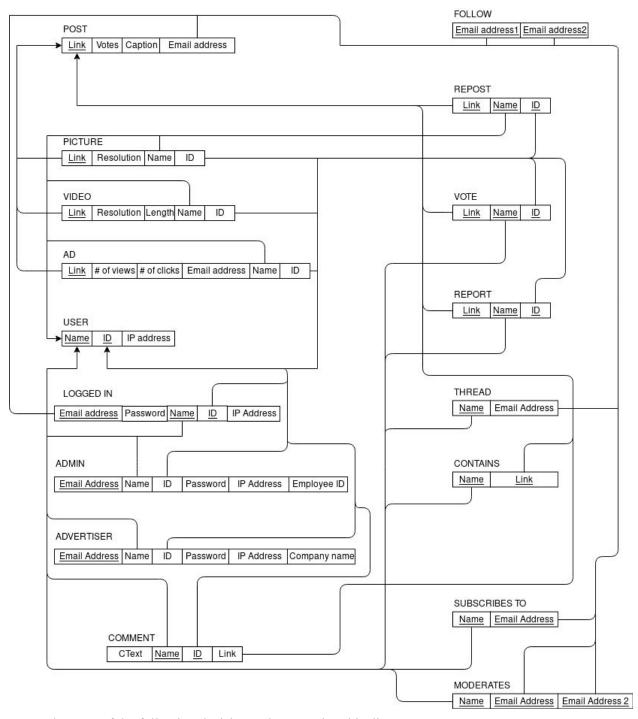


Above is an updated ER diagram that more closely follows the databases current design. Below are changes were made since the creation of the original entity relationship diagram:

- Extra attributes were added such as 'Company name' for ADVERTISER, 'Employee ID' for ADMIN, and '# of followers' as a derived attribute for LOGGED IN.
- The profile functionality was scrapped because our goal was to not have any unnecessary information on the user and we feel the profile contradicted that goal.

# Implementation

Starting the implementation we converted our ER diagram into a relational diagram to create a more accurate design of the database. The following is the relational diagram based on the above ER diagram.



We made some of the following decisions when creating this diagram:

- We decided to get rid of the second email address in MODERATES because it is redundant
  - o Instead, admins capabilities should be implemented in the application logic
- TAGS was eliminated completely due to it being too vague and not having a clear idea on how to implement the function.

```
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```

# Database management system

MySQL was used with xampp to create the database management system. Below are queries we used within the system.

### **SQL** Queries

The following are examples of the queries designed for the database:

```
CREATE TABLE USER (
      Name
                        CHAR(16)
                                    NOT NULL,
      ID
                        INT
                                    NOT NULL,
      IP Address
                        CHAR(45)
                                    NOT NULL,
      PRIMARY KEY(Name, ID)
);
CREATE TABLE LOGGED IN (
      Email address
                        CHAR(320)
                                    NOT NULL,
      Password
                        VARCHAR(128)
                                          NOT NULL,
      Name
                        CHAR(16)
                                    NOT NULL,
      ID
                        INT
                                    NOT NULL,
      IP Address
                        CHAR(45)
                                    NOT NULL,
      PRIMARY KEY(Email address),
      UNIQUE(Name, ID),
      FOREIGN KEY(Name) REFERENCES USER(Name)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(ID) REFERENCES USER(ID)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
);
CREATE TABLE ADMIN (
      Email address
                        CHAR(320)
                                    NOT NULL,
      Password
                        VARCHAR(128)
                                          NOT NULL,
      Name
                        CHAR(16)
                                    NOT NULL,
      ID
                        INT
                                    NOT NULL,
      IP Address
                        CHAR(45)
                                    NOT NULL,
```

```
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      Employee ID
                        INT
                                     NOT NULL,
      PRIMARY KEY(Email address),
      UNIQUE(Name, ID, Employee ID),
      FOREIGN KEY(Name) REFERENCES USER(Name)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(ID) REFERENCES USER(ID)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(Email address) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
);
CREATE TABLE ADVERTISER (
      Email address
                        CHAR(320)
                                     NOT NULL,
      Password
                        VARCHAR(128)
                                           NOT NULL,
      Name
                        CHAR(16)
                                     NOT NULL,
      ID
                        INT
                                     NOT NULL,
      IP Address
                        CHAR(45)
                                     NOT NULL,
      Company name
                        CHAR(48)
                                     NOT NULL,
      PRIMARY KEY(Email address),
      UNIQUE(Name, ID, Company name),
      FOREIGN KEY(Name) REFERENCES USER(Name)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(ID) REFERENCES USER(ID)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(Email address) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
);
CREATE TABLE POST (
      Link
                        CHAR(255)
                                     NOT NULL,
      Caption
                  VARCHAR(140),
      Email address
                        CHAR(320),
      PRIMARY KEY(Link),
      FOREIGN KEY(Email address) REFERENCES Logged_in(Email_address)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
);
CREATE TABLE PICTURE (
      Link
                        CHAR(255)
                                     NOT NULL,
      Caption
                  VARCHAR(140),
```

```
Steven Canon-Almagro - 10155792 (T01)
Carl Lyss - 30025962 (T02)
                                    NOT NULL,
      Resolution
                        CHAR(16)
      Name
                        CHAR(16)
                                    NOT NULL,
      ID
                        INT
                                    NOT NULL,
      PRIMARY KEY(Link),
      FOREIGN KEY(Link) REFERENCES POST(Link)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(Caption) REFERENCES POST(Caption)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(Name) REFERENCES USER(Name)
                                    ON UPDATE CASCADE;
            ON DELETE CASCADE
      FOREIGN KEY(ID) REFERENCES USER(ID)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
);
CREATE TABLE VIDEO (
      Link
                        CHAR(255)
                                    NOT NULL,
      Caption
                  VARCHAR(140),
      Resolution
                        CHAR(16)
                                    NOT NULL,
      Length
                        INT
                                    NOT NULL,
      Name
                        CHAR(16)
                                    NOT NULL,
      ID
                        INT
                                    NOT NULL,
      PRIMARY KEY(Link),
      FOREIGN KEY(Link) REFERENCES POST(Link)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(Caption) REFERENCES POST(Caption)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(Name) REFERENCES USER(Name)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(ID) REFERENCES USER(ID)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
);
CREATE TABLE AD (
      Link
                        CHAR(255)
                                    NOT NULL,
      Caption
                  VARCHAR(140),
      Num views
                        INT,
      Num clicks
                        INT,
      Email address
                        CHAR(320)
                                    NOT NULL,
      Name
                        CHAR(16)
                                    NOT NULL,
      ID
                        INT
                                    NOT NULL,
```

Group 6 - mysocial

Aidan Bjelke - 10160269 (T01)

```
Group 6 - mysocial
Aidan Bjelke - 10160269 (T01)
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Carl Lyss - 30025962 (T02)
      PRIMARY KEY(Link),
      FOREIGN KEY(Link) REFERENCES POST(Link)
                                    ON UPDATE CASCADE;
            ON DELETE CASCADE
      FOREIGN KEY(Caption) REFERENCES POST(Caption)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(Email address) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(Name) REFERENCES USER(Name)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(ID) REFERENCES USER(ID)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
);
CREATE TABLE THREAD (
      Name
                        CHAR(16)
                                    NOT NULL,
      Email address
                        CHAR(320)
                                    NOT NULL,
      PRIMARY KEY(Name),
      FOREIGN KEY(Email address) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
);
CREATE TABLE COMMENT (
                  VARCHAR(140),
      CText
      Name
                        CHAR(16)
                                    NOT NULL,
      ID
                        INT
                                    NOT NULL,
      Link
                        CHAR(255)
                                    NOT NULL,
      PRIMARY KEY(Name, ID),
      UNIQUE(Link),
      FOREIGN KEY(Link) REFERENCES POST(Link)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(Name) REFERENCES USER(Name)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
      FOREIGN KEY(ID) REFERENCES USER(ID)
            ON DELETE CASCADE
                                    ON UPDATE CASCADE;
);
CREATE TABLE CONTAINS (
      Name
                        CHAR(16)
                                    NOT NULL,
      Link
                        CHAR(255)
                                    NOT NULL,
      PRIMARY KEY(Name, Link),
```

```
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Carl Lyss - 30025962 (T02)
      FOREIGN KEY(Name) REFERENCES THREAD(Name)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(Link) REFERENCES POST(Link)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
);
CREATE TABLE SUBSCRIBES TO (
                        CHAR(16)
                                     NOT NULL,
      Name
      Email address
                        CHAR(320)
                                     NOT NULL,
      PRIMARY KEY(Name, Email address),
      FOREIGN KEY(Name) REFERENCES THREAD(Name)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(Email address) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
);
CREATE TABLE MODERATES (
      Name
                        CHAR(16)
                                     NOT NULL,
      Email address
                        CHAR(320)
                                     NOT NULL,
      Email address2
                        CHAR(320)
                                     NOT NULL,
      PRIMARY KEY(Name, Email address, Email address2),
      FOREIGN KEY(Name) REFERENCES THREAD(Name)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(Email address) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(Email address2) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
);
CREATE TABLE FOLLOW (
      Email address1 CHAR(320)
                              NOT NULL,
      Email address2 CHAR(320)
                              NOT NULL,
      PRIMARY KEY(Email address1, Email address2),
      FOREIGN KEY(Email address1) REFERENCES Logged in(Email address)
            ON DELETE CASCADE
                                     ON UPDATE CASCADE;
      FOREIGN KEY(Email address2) REFERENCES Logged in(Email address)
                                     ON UPDATE CASCADE;
            ON DELETE CASCADE
);
CREATE TABLE REPOST (
```

```
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Carl Lyss - 30025962 (T02)
     Link
                       CHAR(255)
                                   NOT NULL,
     Name
                       CHAR(16)
                                   NOT NULL,
     ID
                       INT
                                   NOT NULL,
     PRIMARY KEY(Link, Name, ID),
     FOREIGN KEY(Name) REFERENCES USER(Name)
           ON DELETE CASCADE
                                   ON UPDATE CASCADE;
     FOREIGN KEY(Link) REFERENCES POST(Link)
                                   ON UPDATE CASCADE;
           ON DELETE CASCADE
     FOREIGN KEY(ID) REFERENCES USER(ID)
           ON DELETE CASCADE
                                   ON UPDATE CASCADE;
);
CREATE TABLE VOTE(
     Link
                       CHAR(255)
                                   NOT NULL,
     Name
                       CHAR(16)
                                   NOT NULL,
     ID
                       INT
                                   NOT NULL,
     PRIMARY KEY(Link, Name, ID),
     FOREIGN KEY(Name) REFERENCES USER(Name)
           ON DELETE CASCADE
                                   ON UPDATE CASCADE;
     FOREIGN KEY(Link) REFERENCES POST(Link)
           ON DELETE CASCADE
                                   ON UPDATE CASCADE;
     FOREIGN KEY(ID) REFERENCES USER(ID)
                                   ON UPDATE CASCADE;
           ON DELETE CASCADE
);
CREATE TABLE REPORT (
     Link
                       CHAR(255)
                                   NOT NULL,
     Name
                       CHAR(16)
                                   NOT NULL,
     ID
                       INT
                                   NOT NULL,
     PRIMARY KEY(Link, Name, ID),
     FOREIGN KEY(Name) REFERENCES USER(Name)
           ON DELETE CASCADE
                                   ON UPDATE CASCADE;
     FOREIGN KEY(Link) REFERENCES POST(Link)
           ON DELETE CASCADE
                                   ON UPDATE CASCADE;
     FOREIGN KEY(ID) REFERENCES USER(ID)
           ON DELETE CASCADE
                                   ON UPDATE CASCADE;
);
CREATE TABLE TAG (
     Link
                       CHAR(255)
                                   NOT NULL,
```

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Tagtext CHAR(24) NOT NULL

);

Insertions

Create account

INSERT INTO LOGGED IN

VALUES ('aidan.bjelke@ucalgary.ca', 'hunter2', 'TheLegend27', 4096);

Create picture post

INSERT INTO PICTURE

VALUES ('https://i.kym-cdn.com/entries/icons/mobile/000/029/775/1942143-ajtdeu9r-v4.jpg',

'1280x720', 'TheLegend27', 4096);

Create video post

INSERT INTO VIDEO

VALUES ('https://i.kym-cdn.com/entries/icons/mobile/000/029/775/1942143-ajtdeu9r-v4.jpg',

'1280x720', 123, 'TheLegend27', 4096);

**Create advertiser** 

INSERT INTO ADVERTISER

VALUES ('advertiser@hotmail.com', 'hunter3', 'TheAdvertiser27', 2048, 'lumenary.');

Create ad

INSERT INTO AD

VALUES ('https://i.kym-cdn.com/entries/icons/mobile/000/029/775/1942143-ajtdeu9r-v4.jpg', 0,

0, 'advertiser@hotmail.com', 'TheAdvertiser27', 2048);

Create thread

INSERT INTO THREAD

VALUES ('databases', 'aidan.bjelke@ucalgary.ca')

Add 'decor' tag to a post

INSERT INTO TAG

**VALUES** 

('https://i.kym-cdn.com/entries/icons/mobile/000/029/775/1942143-ajtdeu9r-v4.jpg', 'decor')

Write comment

INSERT INTO COMMENT

VALUES ('follow for daily minecraft posts', 'TheLegend27', 4096,

https://i.kvm-cdn.com/entries/icons/mobile/000/029/775/1942143-aitdeu9r-v4.jpg):

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Repost

INSERT INTO REPOST

Carl Lyss - 30025962 (T02)

**VALUES** 

('https://i.kym-cdn.com/entries/icons/mobile/000/029/775/1942143-ajtdeu9r-v4.jpg', 'TheLegend27', 4096);

Vote on post

INSERT INTO VOTE

**VALUES** 

('https://i.kym-cdn.com/entries/icons/mobile/000/029/775/1942143-ajtdeu9r-v4.jpg', 'TheLegend27', 4096);

Report post

INSERT INTO REPORT

**VALUES** 

('https://i.kym-cdn.com/entries/icons/mobile/000/029/775/1942143-ajtdeu9r-v4.jpg', 'TheLegend27', 4096);

### Queries

#### **Show home feed (subscribed threads)**

SELECT SUBSCRIBES TO.Name, POST.Caption, CONTAINS.Link

FROM SUBSCRIBES TO AS SUB, LOGGED IN AS LI, POST, CONTAINS, THREAD

WHERE SUB.Email Address = LI.Email Address

AND

SUB.Name = CONTAINS.Name

AND

SUB.Name = THREAD.Name

AND

CONTAINS.Link = POST.Link

Subscribe

INSERT INTO SUBSCRIBES TO

VALUES ('databases', 'aidan.bjelke@ucalgary.ca');

**Restart (Delete all users posts)** 

DELETE FROM (((POST NATURAL JOIN PICTURE) NATURAL JOIN VIDEO) NATURAL

JOIN AD) AS P

WHERE P.Email address = 'aidan.bjelke@ucalgary.ca'

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#### Show followers of 'TheLegend27', id = 4096 (shown previously)

SELECT Name, ID

FROM LOGGED\_IN AS U, FOLLOW AS F
WHERE F.Email address1 = U.Email address

AND

F.Email\_address2 IN (SELECT Email\_address

FROM LOGGED IN AS U1

WHERE U1.Name = 'TheLegend27'

AND U1.ID = 4096);

#### Show all users that 'TheLegend27' follows

SELECT Name, ID

FROM LOGGED\_IN AS U, FOLLOW AS F WHERE F.Email address2 = U.Email address

AND

F.Email address 1 IN (SELECT Email address

FROM LOGGED IN AS U1

WHERE U1.Name = 'TheLegend27'

AND U1.ID = 4096);

#### Get all reported posts on a thread

SELECT POST\*

FROM POST, THREAD, CONTAINS, REPORT

Where THREAD.name = 'sampleName' AND POST.link = CONTAINS.link

AND CONTAINS.name = THREAD.name AND P.link = REPORT.link

#### Get all a users posts with a tag

SELECT P\*

FROM (((POST NATURAL JOIN PICTURE) NATURAL JOIN VIDEO) NATURAL JOIN

AD) AS P, TAG AS T

WHERE T.tagtext = 'sampletag'

AND P.Email address = 'aidan.bjelke@ucalgary.ca'

AND P.Link IN T

#### Get all reported posts with a tag

SELECT R\*

FROM REPORT AS R, TAG AS T, POST AS P

WHERE T.tagtext = 'sampletag' AND T.link = P.link AND P.link = R.link

#### Get users and how many reported posts they have

SELECT Name, ID, COUNT(\*)

FROM (USER NATURAL JOIN REPORT)

GROUP BY NAME, ID

#### Get number of subscribers to a thread

SELECT COUNT(\*)

FROM SUBSCRIBES\_TO AS ST WHERE ST.Name = 'databases'

#### Get posts with between 100 and 300 votes

SELECT POST\*

FROM POST, VOTE

WHERE POST.Link = VOTE.Link

GROUP BY VOTE.link

HAVING COUNT(\*) > 100 AND COUNT(\*) < 300)

### Revisions from previous relational model (reflected in tables above)

- Removed votes attribute in post
- Removed email\_address2 from moderates table (this is redundant, it made sense in the ERD but not in the final version- it pertains to admins which "moderate" every thread, but storing a copy for every other moderator is unnecessary)
- Added tag table, effectively making the relation many to many and adding an attribute for tag text (this change makes it fit better with our original idea of tags which is similar to hashtags on Twitter)

### User Manual

## Using the System

#### Home page -

- Here the user can view all posts
  - Clicking on a link opens a new tab and takes you to that page
    - I.e. clicking on a YouTube link will open a new page redirecting you to YouTube
- Vote on posts (only positive feedback)
- Create a post
  - The dropdown menu allows users to associate their post with an existing thread

- Search for threads
- Log in
- Sign up
- Follow other users if logged in

mysocial Search For Threads Submit. Home Syncys Log-in Create a post  Caption   Optional						
Thread: Optional V Submit  Votes	Link	Caption	Thread(s)	Poster (click to follow)	Comments	
ū		destroy all humans 2 gameplay	gaming,	bungle #461	comments	
Q	view					
1		Haha look at this cat		BigBadAdmin #6.	comments	
Ω	view	Look at this bubble		Steven #2	comments	
1	view	These fires are out of control				
<u>0</u>	view			TheLegend27 #4	comments	
0	view	Look at these words.				
Q	view	Who need images when you have text		TheLegend27 #4	comments	
Ω		Bubbles.				
ū	view			Aidan #0	comments	

### Signup page -

- Email is the primary
- Password and username can be whatever the user wants
- After the user is redirected to the logged in home screen

## Sign-up

Home Log-in	
E-mail:	
Password:	
Username:	
Sign Up	

### Login page -

• Entering the right user credentials will redirect them to the logged in home screen

# Log-In

Home Sign-up	
E-mail:	
Password:	
Log In	

### Logged in main page -

- A feature that an anonymous user can't perform is creating a thread
  - Shown right above the search bar.



### Create A Thread page -

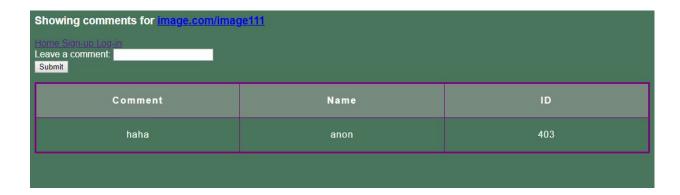
- Here the user can create a thread
- First they need to provide a name for it then they can make one.

# **Creating A Thread**

Home	
Thread Name:	
Create	

Comment page for a post -

• Here the user can anonymously comment on a post, or sign up/ log in and comment under a name of their choosing



# Appendix

Examples of Sample Data Used to Populate the Database

**Note:** For testing the submission, see the included 'mysocial.sql' file which can be imported into a local MySQL database. Additionally the 'mysql\_connection.py' Python script can be used to initialize the empty tables, and 'populate.py' can be used for generating test data from scratch.

### POST sample data:

	Link	Caption	Email_address
١	bigcompany.ca	Check out our Canadian merch	bigCompany@company.com
	bigcompany.com	Check out our sweet merch	bigCompany@company.com
	https://www.youtube.com/watch?v=Fg8Ht8W	000000000000000000000000000000000000000	test@s
	https://www.youtube.com/watch?v=PJielywHIjY	test link	test@s
	https://www.youtube.com/watch?v=sfal2DbZcjs	hockey	HULL
	image.com/image111	Haha look at this cat	important@outlook.com
	image.com/image555	Look at this bubble	bubbleBlower@hotmail.com
	image.com/image658	These fires are out of control	fireman64@gmail.com
	image.com/image789	This was a great victory	someTwo@gmail.com
	page.text1	Look at these words.	someOne@gmail.com
	page.text2	Who need images when you have text	someTwo@gmail.com
	page.text3	Bubbles.	bubbleBlower@hotmail.com
	page.text4	This is my second post	someOne@gmail.com
	page.text5	Don't do anything I wouldn't	important@outlook.com
	smallcorperation.com	Support your local businesses	smallCorp@company.com
	youtube.com/watch/7fhg7g6	So many BUBBLES	someTwo@gmail.com
	youtube.com/watch/asfdsaf	Spoilers for Avengers Endgame	fireman64@gmail.com
	youtube.com/watch/d4was564d	More high quality bubbless	bubbleBlower@hotmail.com
	youtube.com/watch/ds45ad46		important@outlook.com
	youtube.com/watch/r41ew354r	Buy gold!!	fireman64@gmail.com
	NULL	NULL	NULL

### USER sample data:

	Name	ID	IP_Address
١	Aidan	0	314
	anon	119	::1
	anon	135	::1
	anon	281	::1
	anon	415	::1
	anon	715	::1
	anon	808	::1
	BigBadAdmin	6	333
	bungle	909	::1
	Carl	1	111
	Carl	3	222
	s	697	::1
	Steven	2	510
	t	127	::1
	TheLegend27	4	333
	TheLegend28		333
	NULL	HULL	NULL

	Name	Email_address
•	Bubble Blowers	bubbleBlower@hotmail.com
	Not Bubbles	bubbleBlower@hotmail.com
	Fire Stoppers	fireman64@gmail.com
	Empty Thread	someTwo@gmail.com
	Text Thread	someTwo@gmail.com
	hello	test@s
	yellow	test@s
	NULL	NULL

### COMMENT sample data:

	CText	Name	ID	Link
•	Wow text posts needing links is kinda weird.	Aidan	0	page.text5
	s	anon	119	https://www.youtube.com/watch?v=Fg8Ht8W
	hope this works	anon	808	https://www.youtube.com/watch?v=Fg8Ht8W
	my name is jeff	bungle	909	https://www.youtube.com/watch?v=Fg8Ht8W
	Who cares about bubbles when there are fires?	Carl	1	youtube.com/watch/7fhg7g6
	That really was a bad fire!	Carl	3	image.com/image658
	we are in the endgame now	S	697	https://www.youtube.com/watch?v=Fg8Ht8W
	yes	S	697	https://www.youtube.com/watch?v=Fg8Ht8W
	Wow, what cool products	Steven	2	smallcorperation.com
	NULL	NULL	NULL	NULL

### CONTAINS sample data:

	Name	Link	
•	Bubble Blowers	image.com/image555	
	Bubble Blowers	youtube.com/watch/7fhg7g6	
	<b>Bubble Blowers</b>	youtube.com/watch/d4was564d	
	Fire Stoppers	image.com/image658	
	Fire Stoppers	youtube.com/watch/r41ew354r	
	Not Bubbles	bigcompany.com	
	Not Bubbles	image.com/image111	
	Not Bubbles	page.text1	
	Not Bubbles	youtube.com/watch/asfdsaf	
	Text Thread	page.text1	
	Text Thread	page.text2	
	Text Thread	page.text3	
	Text Thread	page.text4	
	Text Thread	page.text5	
	yellow	https://www.youtube.com/wat	

### VOTE sample data:

	Link	Name	ID
•	https://www.youtube.com/watch?v=Fg8Ht8W	anon	281
	https://www.youtube.com/watch?v=Fg8Ht8W	anon	415
	https://www.youtube.com/watch?v=Fg8Ht8W	anon	715
	image.com/image658	Carl	3
	page.text2	anon	135
	youtube.com/watch/d4was564d	Aidan	0
	youtube.com/watch/d4was564d	Steven	2
	HULL	NULL	NULL

### FOLLOW sample data:

	Email_address1	Email_address2
•	bubbleBlower@hotmail.com	someOne@gmail.com
	bubbleBlower@hotmail.com	someTwo@gmail.com
	someOne@gmail.com	bubbleBlower@hotmail.com
	someOne@gmail.com	fireman64@gmail.com
	someOne@gmail.com	someTwo@gmail.com
	someTwo@gmail.com	bubbleBlower@hotmail.com
	test@s	test@s
	HULL	NULL