

CPSC 304 Project Cover Page

Milestone #: 4

Date: August 7, 2022

Group Number: 42

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

Group Repository:

https://github.students.cs.ubc.ca/CPSC304-2022S-T2/project_e5y2b_f2f3b_h4a3b

The SQL script used to create all table and data in the database:

https://github.students.cs.ubc.ca/CPSC304-2022S-T2/project_e5y2b_f2f3b_h4a3b/blob/main/create-db.sql

README file:

https://github.students.cs.ubc.ca/CPSC304-2022S-T2/project_e5y2b_f2f3b_h4a3b#readme

3a) Project Description:

- We designed a social media platform that allows users to signup, login, post contents, read news and ads, chat, trace user statistics, and receive badges. In addition, we allow sponsors to sign up, login, create ads, and modify ads on our platform.
- We designed and developed a posting/viewing-based social media platform that allows users to interact in various ways.
- On our platform, users may signup and login, and a unique profile will be created; our users may post contents, and view other's content and news. The user can also post content with a specific topic, and trending topics will be displayed. Additionally, users may join a specific group in order to post and view contents belonging to the specific group, the possible list of groups will be displayed to all users. Between two users, a chat can be initiated, and the users can communicate with each other. In the exploration page, the user can run desired queries to view the user statistics of the platform, such as list number of topics created by users, number of messages sent by active users (users need to send at least 5 messages to be considered as an active user), number of posts made by users who have previously created a topic.
- We also introduce the sponsor/ad/badge system into our platform. A sponsor account can be created to post and modify ads, and the advertisements will be forward to users' viewing content page. A badge can be created along with the ads(attainable by clicking the ads), to encourage users to interact with the advertisement.

3b) No changes were made to the schema in Milestone 4.

3c) SQL Queries Used:

Queries	Code	Where to find in code
INSERT	INSERT INTO Posts VALUES ('\${id}', '\${content}', CURRENT_TIMESTAMP)	Create_Content.php in function handleInsertRequest Id is the post id generated by the website, content is the text submitted by user
DELETE	DELETE FROM Groups	customize-groups.php in

	WHERE gname = '{\$g}'	function handleDeleteGroupRequest() g is the group name submitted by the user
UPDATE	UPDATE Creates_Ads1 SET DesCription = ‘ “.\$ades.” ’ WHERE title= “ “.\$title.”	Edit_ads.php in function handleUpdateRequest() \$ades is the text sponsor enter for new description, Title is the original title of the ads
SELECTION	(please refer to the screenshot below)	queryTable function in explore.php User is able to choose among three tables (Topics, Badges and Content) and their corresponding attributes. If the user chooses Topics table, an input field will appear and allow the user to enter a selection condition.
PROJECTION	(please refer to the screenshot below)	queryTable function in explore.php If the user selects Content table, 5 attributes will appear as a list of check boxes. Thus, users can select any number of attributes.
JOIN	(please refer to the screenshot below)	queryTable function in explore.php If the user selects Content table, a dropdown will be available for inputting a selection condition (to be satisfied in the WHERE clause). Upon submit, the result will be queried by joining Content table and Posts table and filtering based on the constraint.
AGGREGATION WITH	SELECT senderName as	generateUserChatsTable

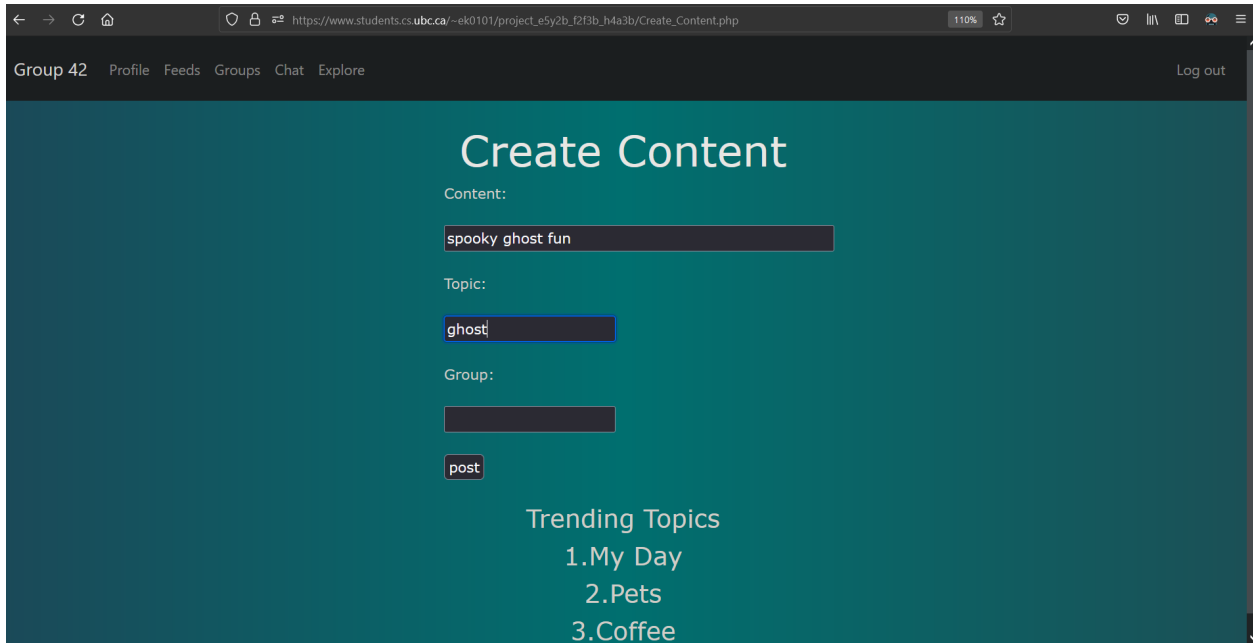
HAVING	username, COUNT(*) as num FROM Messages1 GROUP BY senderName HAVING COUNT(*)>4 ORDER BY num Desc	function in explore.php
AGGREGATION WITH GROUP BY	SELECT username, COUNT(*) as num FROM Creates_Topics GROUP BY username ORDER BY num Desc	generateUserTopicsTable function in explore.php
NESTED AGGREGATION WITH GROUP BY	SELECT username, COUNT(*) as num FROM Content GROUP BY username HAVING 0 < (SELECT COUNT(*) FROM Creates_Topics WHERE Content.username = Creates_Topics.username) ORDER BY num Desc	generateUserPostTable function in explore.php
DIVISION	SELECT Gets_Badges.bname AS badgeName, username, description FROM Gets_Badges, Badges WHERE Gets_Badges.bname = Badges.bname AND Gets_Badges.username = '{\$u}'	user-profile.php in function displayUserBadges() u is the username of the current user accessing the user-profile

```
$query = "SELECT";
foreach ($attributes as $item) {
    if ($item == "pid") {
        $query = $query." Content.pid, ";
    } else {
        $query = $query." ".$item.", ";
    }
}
$query = rtrim($query, ", ");
if($tableName == "Content") {
    $query = $query." FROM ".$tableName." JOIN Posts ON Content.pid = Posts.pid";
    if($groups == "Public") {
        $query = $query." WHERE gname IS NULL";
    } else if($groups != "All") {
        $query = $query." WHERE gname = '".$groups."'";
    }
} else {
    $query = $query." FROM ".$tableName;
}
if ($tableName == "Topics") {
    $query = $query." WHERE numberOfPost > ".$constraint;
}
```

3d) Screenshots for sample output of the queries using the GUI

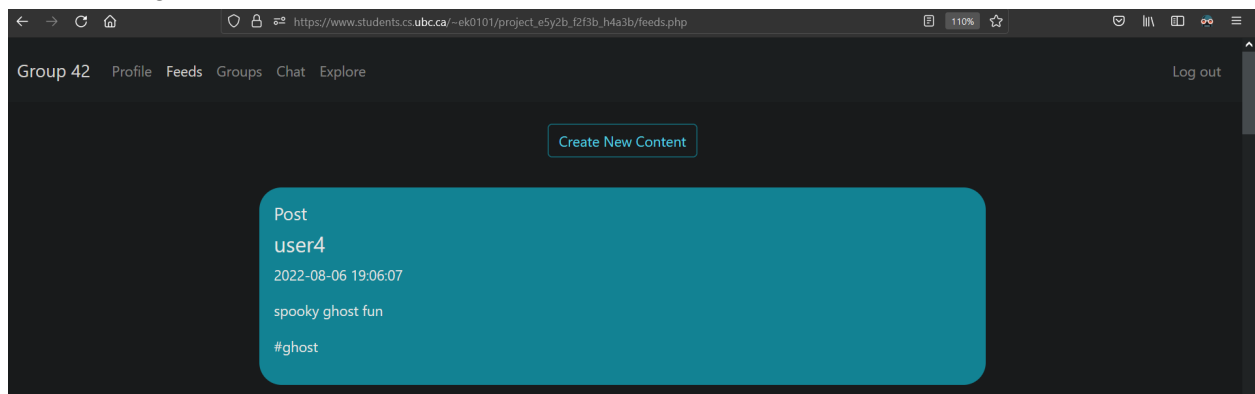
Screenshots for INSERT:

Submitting a post



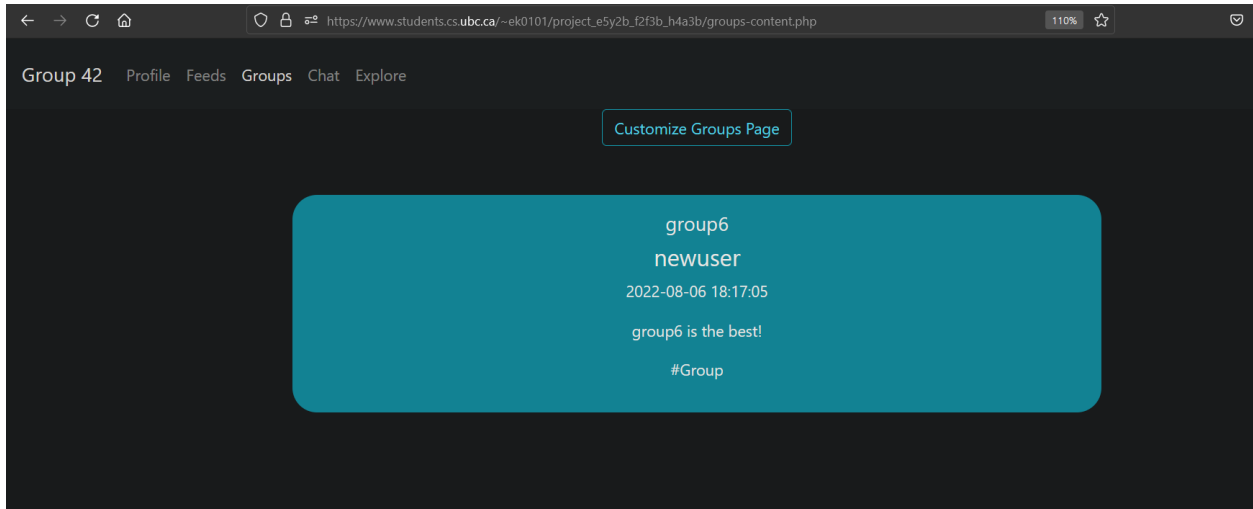
The screenshot shows a web browser window with the URL `https://www.students.cs.ubc.ca/~ek0101/project_e5y2b_f2f3b_h4a3b/Create_Content.php`. The page has a dark teal background. At the top, there is a navigation bar with 'Group 42', 'Profile', 'Feeds', 'Groups', 'Chat', 'Explore', and a 'Log out' link. The main heading is 'Create Content'. Below it, there are three input fields: 'Content:' with the text 'spooky ghost fun', 'Topic:' with the text 'ghost', and 'Group:' which is empty. Below the 'Group:' field is a 'post' button. At the bottom, there is a section titled 'Trending Topics' with a list: '1.My Day', '2.Pets', and '3.Coffee'.

After posting

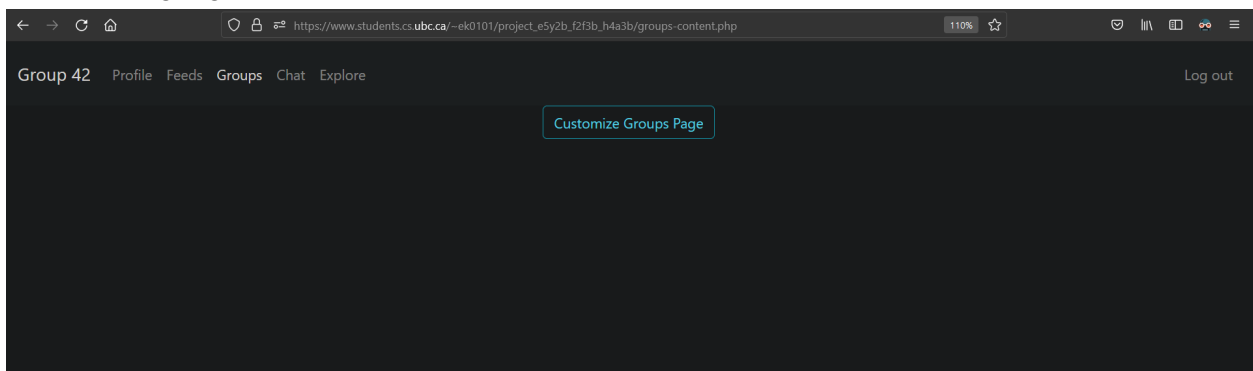


Screenshots for DELETE:

Before deleting a group



After deleting a group



Screenshot for UPDATE:

Sponsor can select display plan or description to update.

Edit Ads

Title:

COFFEE1

Want to update:

☐ display plan
 ☐ Description

Change display plan:

5 days for \$100

Description:

create

Screenshot for SELECTION:

Users can choose a table from the dropdown and input a number as the selection condition

Run a query

Please select a table that you want to query:

✓ Topics

Badges

Content

Run a query

Please select a table that you want to query:

Topics

Load Attributes

☐ Topic Name

☐ Number Of Post

For Topics have greater than posts

Load Data

Screenshot for PROJECTION:

Users can select any number of attributes

Run a query

Please select a table that you want to query:

Content

Load Attributes

☒ Content ID

☒ Content Text

☐ Time Created

☒ Username

☐ Group Name

From:

All

Load Data

Screenshot for JOIN:

Upon submitting, Content table will be joined with Posts table and the constraint that users specified will be satisfied in the WHERE clause

Run a query

Please select a table that you want to query:

Content

Load Attributes

- ☐ Content ID
- ☐ Content Text
- ☐ Time Created
- ☐ Username
- ☐ Group Name

From:

✓ All
Public
group1
group2
group3
group4

Screenshot for AGGREGATION WITH HAVING:

Show User & Topics Table

Show User & Chats Table

Show User & Posts Table

Number of messages sent by active users (users need to send at least 5 messages to be considered as an active user):

Username	Number
user1	5
user2	5

Screenshot for AGGREGATION WITH GROUP BY:

Show User & Topics Table

Show User & Chats Table

Show User & Posts Table

Number of topics created by users:

Username	Number
user2	3
user1	2

Screenshot for NESTED AGGREGATION WITH GROUP BY:

Show User & Topics Table

Show User & Chats Table

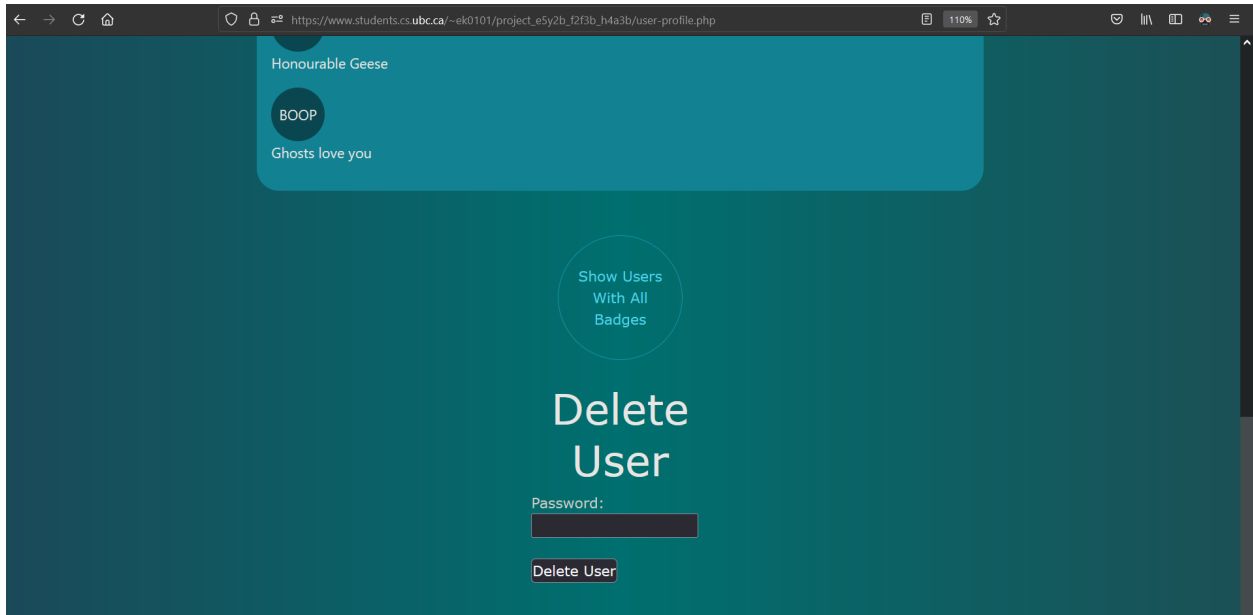
Show User & Posts Table

Number of posts by users who have previously created a topic:

Username	Number
user1	1
user2	1

Screenshot for DIVISION:

Button to show all users who have received all badges



After clicking the button

