

MyDiscussionForum Final Documentation

A community platform for discussion and interaction about Video Games

User Guide

Site Access and Navigation

Access: Visit <https://cosc360.ok.ubc.ca/creurink/MyDiscussionForum> to access the forums.

Registration: Click on the registration link in the navbar to create an account.

Login: Use your credentials to log in and participate in forums.

Users:

Username: Admin

Password: Password1

Is admin of the entire site

Username: Apex_Admin

Password: Password1

Is admin of the Apex legends forum

Username: Dragons_Admin

Password: Password1

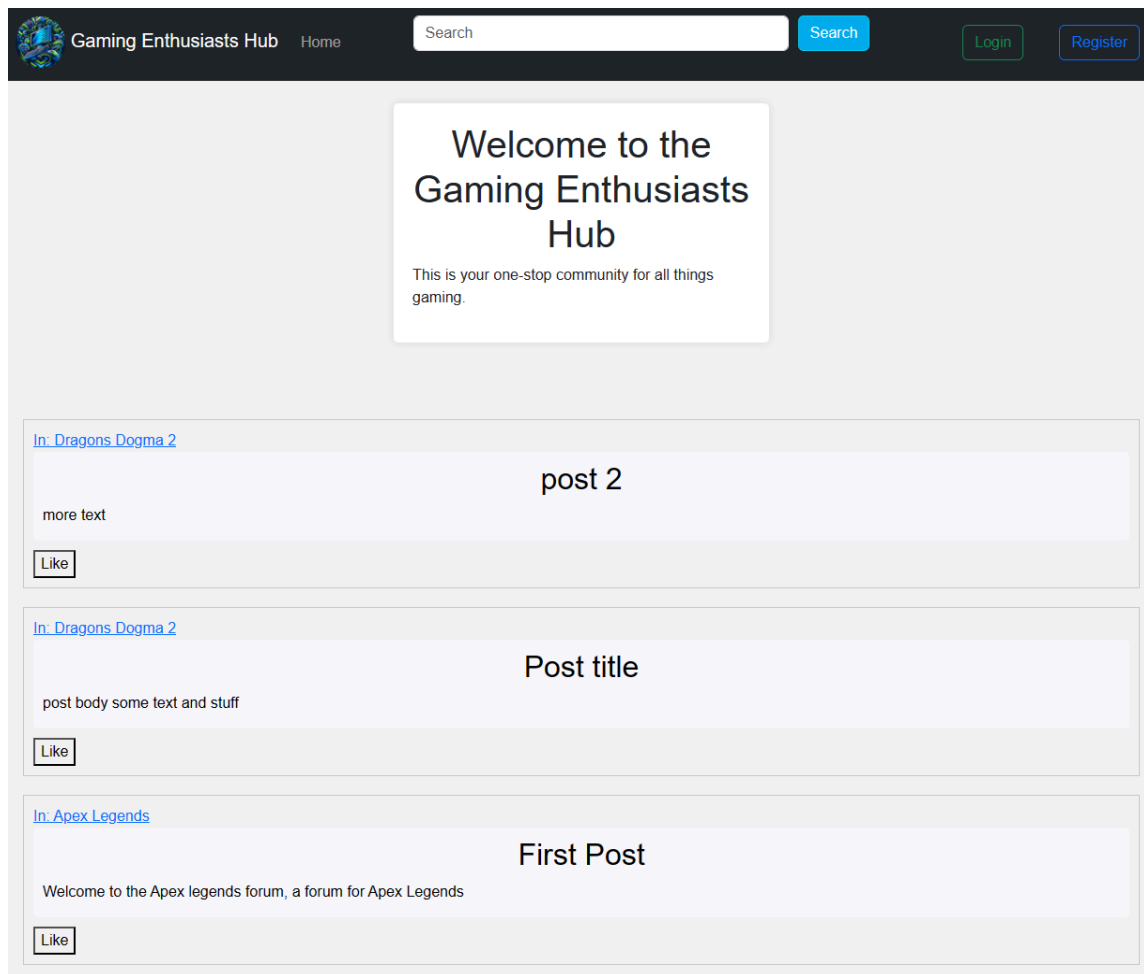
Is admin of the Dragons Dogma 2 forum

Username: Regular_User

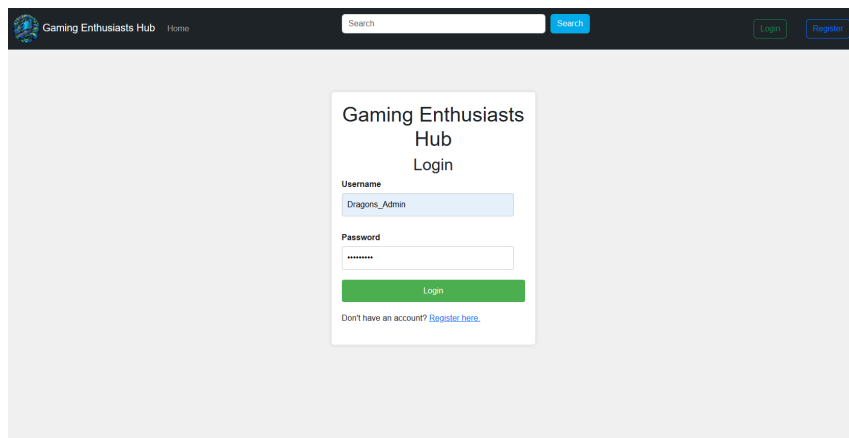
Password: Password1

Is admin of nothing

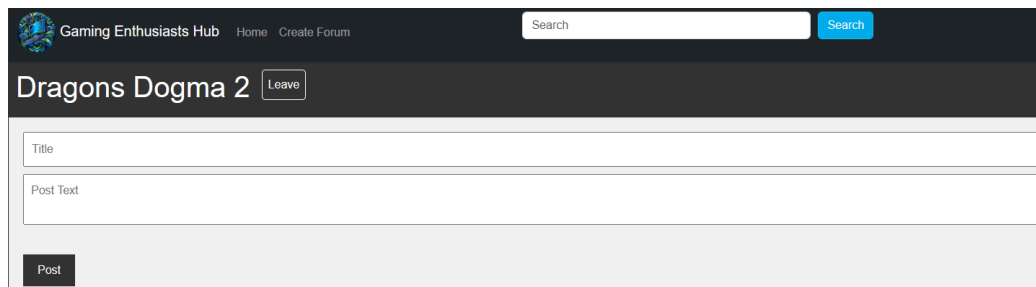
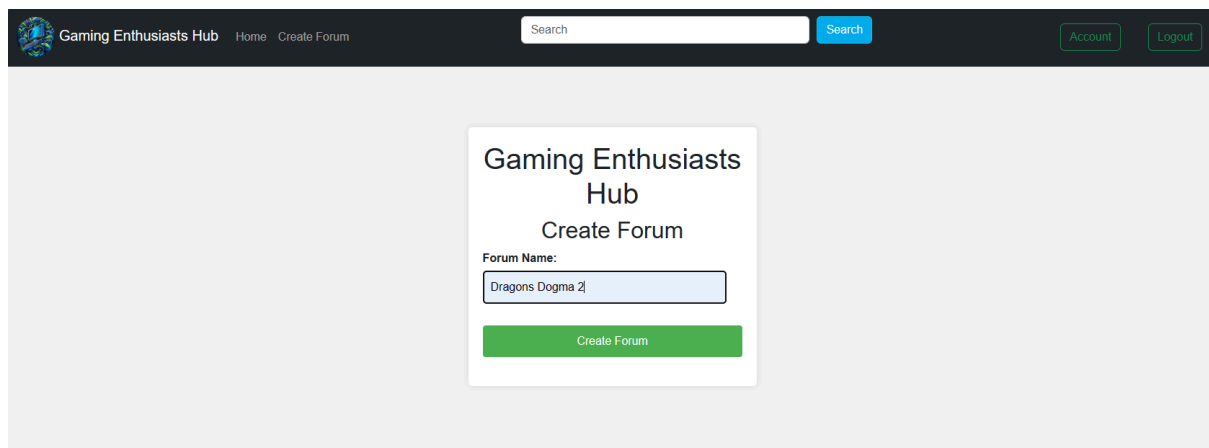
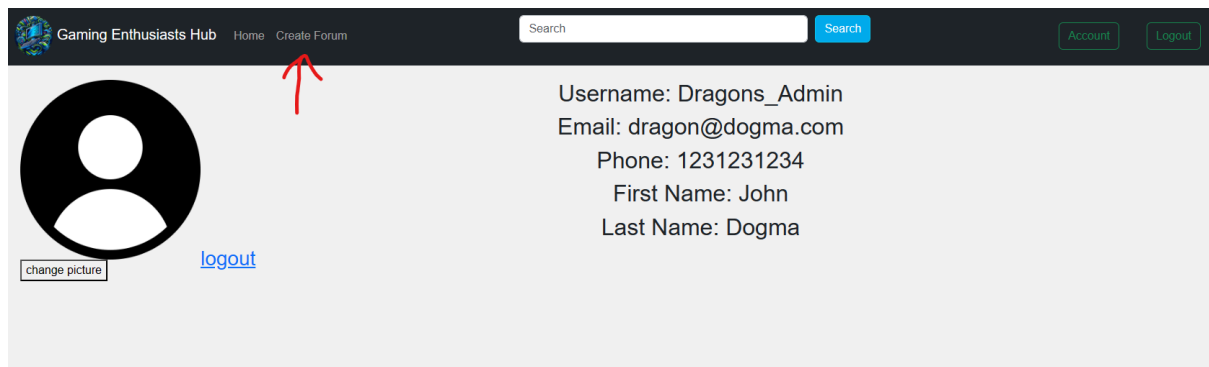
home screen displays all posts if not logged in or posts from your servers if you are



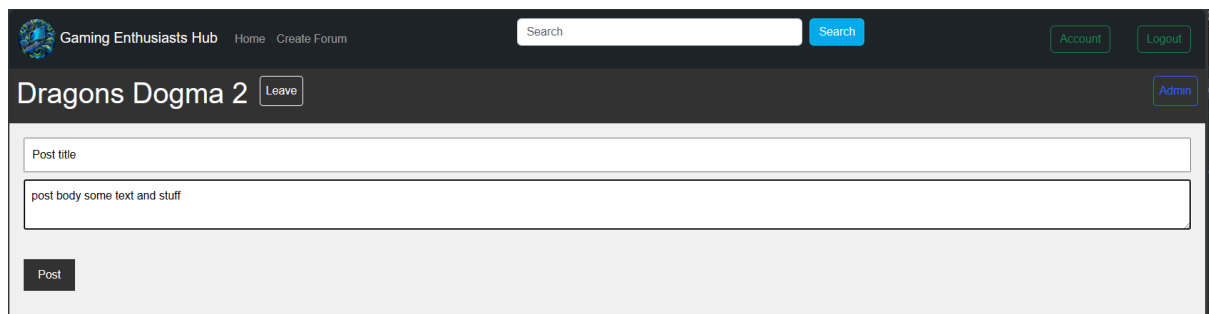
Login:




can create forum, creator is Admin:



Post in forum:



click post to open

 Gaming Enthusiasts Hub

[Home](#) [Create Forum](#)

[Search](#)

[Account](#)

[Logout](#)

Dragons Dogma 2

[Leave](#)

[Admin](#)


Post

post body some text and stuff

Post title

Like

comment on post

 Gaming Enthusiasts Hub

[Home](#) [Create Forum](#)

[Search](#)

[Account](#)


[Logout](#)

post body some text and stuff

Post title

Comments

Comment

 Gaming Enthusiasts Hub

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post body some text and stuff

Post title

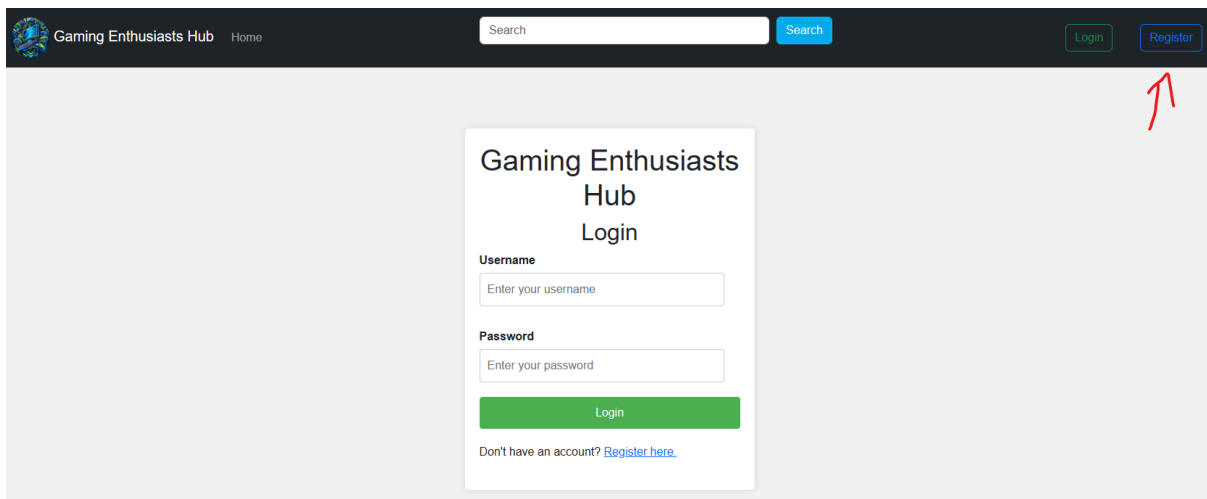
Comments

Comment

Dragons_Admin

Some comment about the post

when logged out, can register:



The screenshot shows the login page of the Gaming Enthusiasts Hub. The header includes the site logo, navigation links, a search bar, and 'Login' and 'Register' buttons. A red arrow points to the 'Register' button. The main content area features a login form with fields for 'Username' and 'Password', a 'Login' button, and a link to 'Register here'.

Gaming Enthusiasts Hub Home Search Login Register

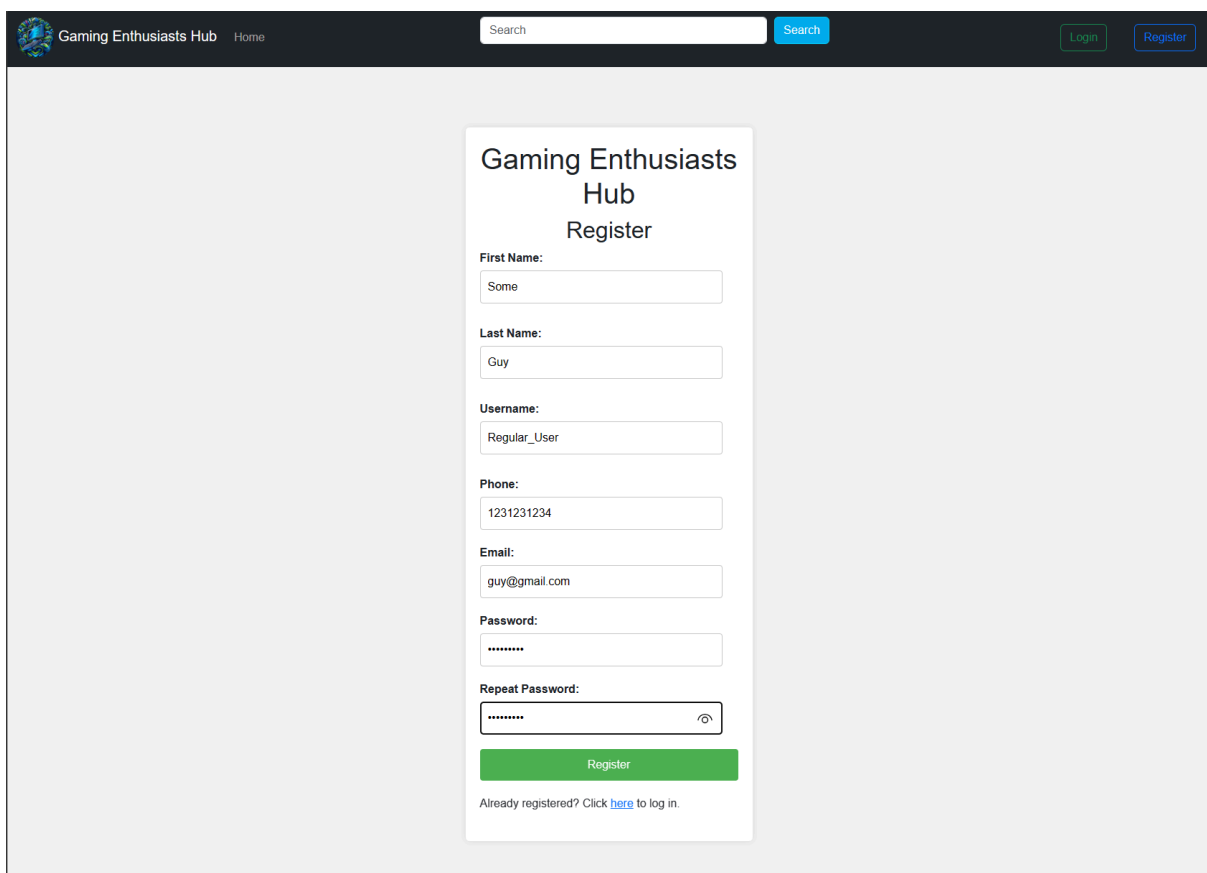
Gaming Enthusiasts Hub Login

Username
Enter your username

Password
Enter your password

Login

Don't have an account? [Register here.](#)



The screenshot shows the registration page of the Gaming Enthusiasts Hub. The header is identical to the login page. The main content area features a registration form with fields for 'First Name', 'Last Name', 'Username', 'Phone', 'Email', 'Password', and 'Repeat Password', followed by a 'Register' button and a link to 'log in'.

Gaming Enthusiasts Hub Home Search Login Register

Gaming Enthusiasts Hub Register

First Name:
Some

Last Name:
Guy

Username:
Regular_User

Phone:
1231231234

Email:
guy@gmail.com

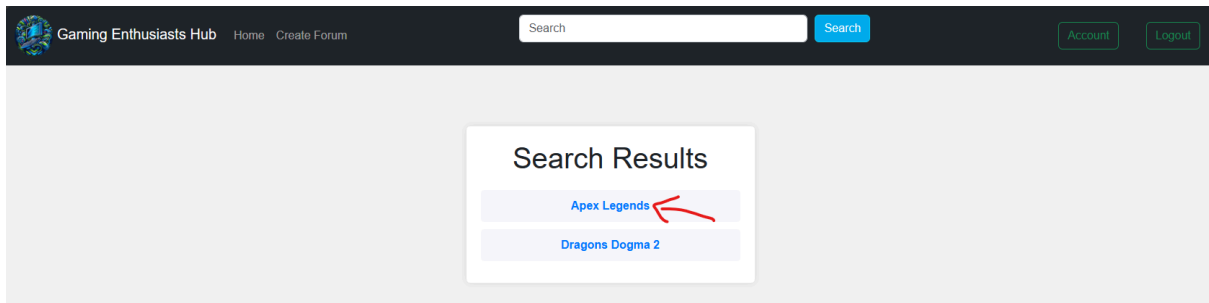
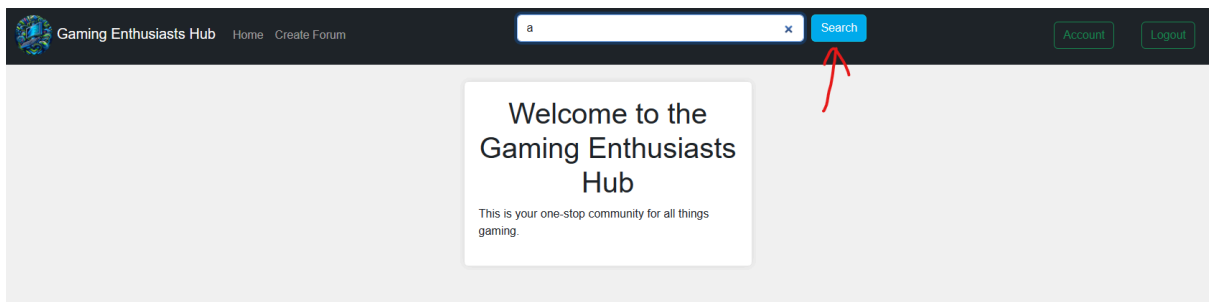
Password:

Repeat Password:

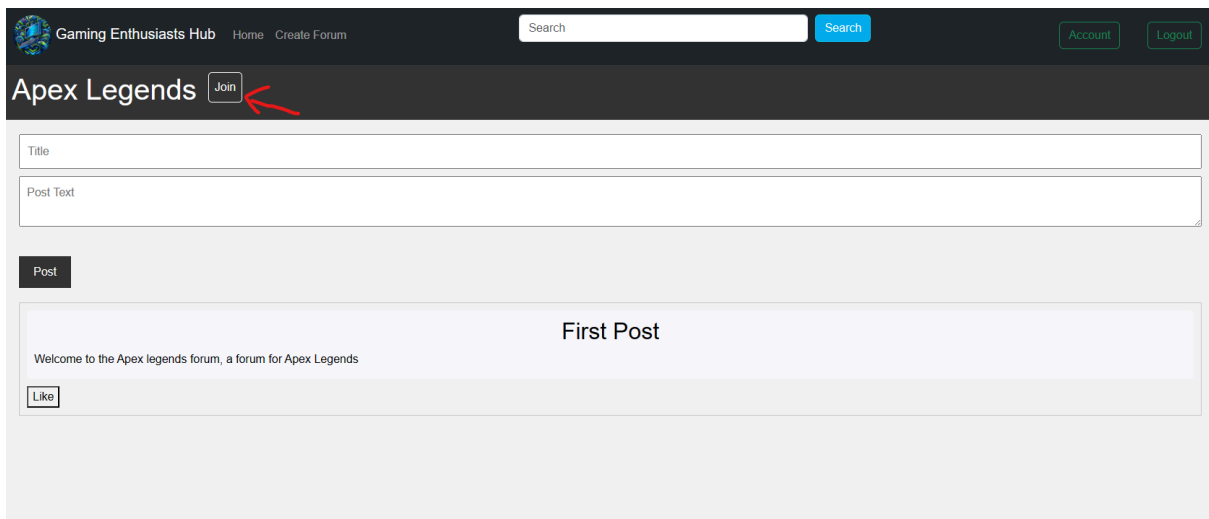
Register

Already registered? Click [here](#) to log in.

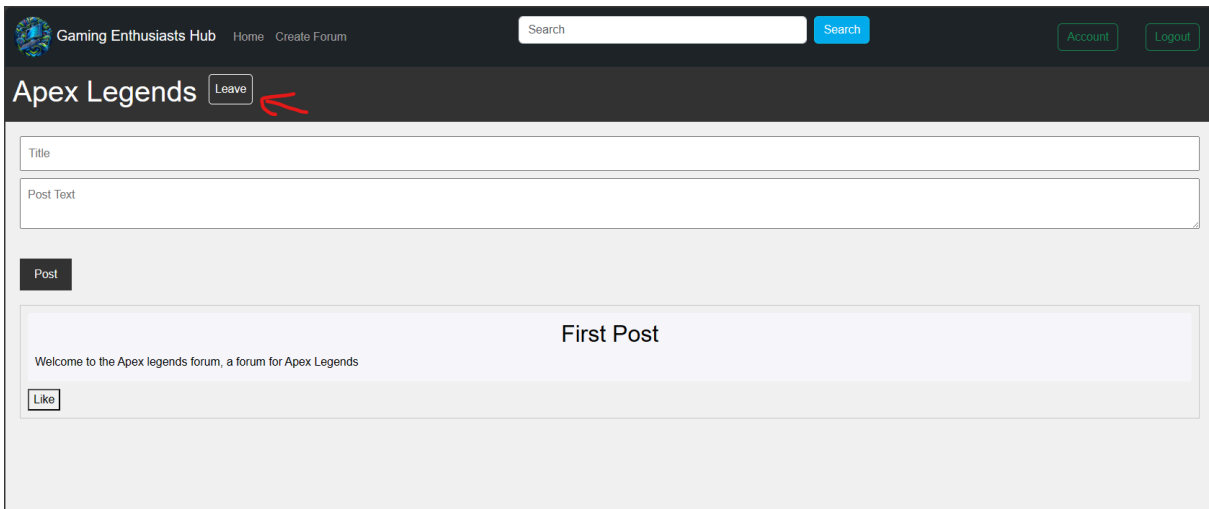
new user can view forums



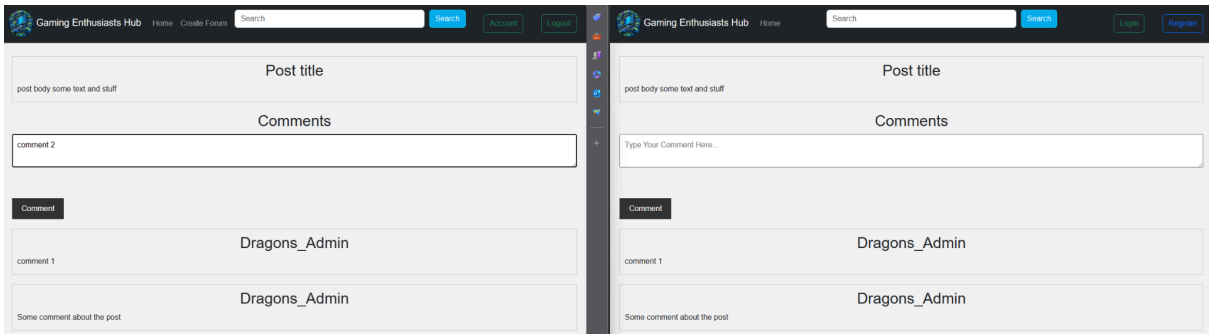
join button visible if not in forum



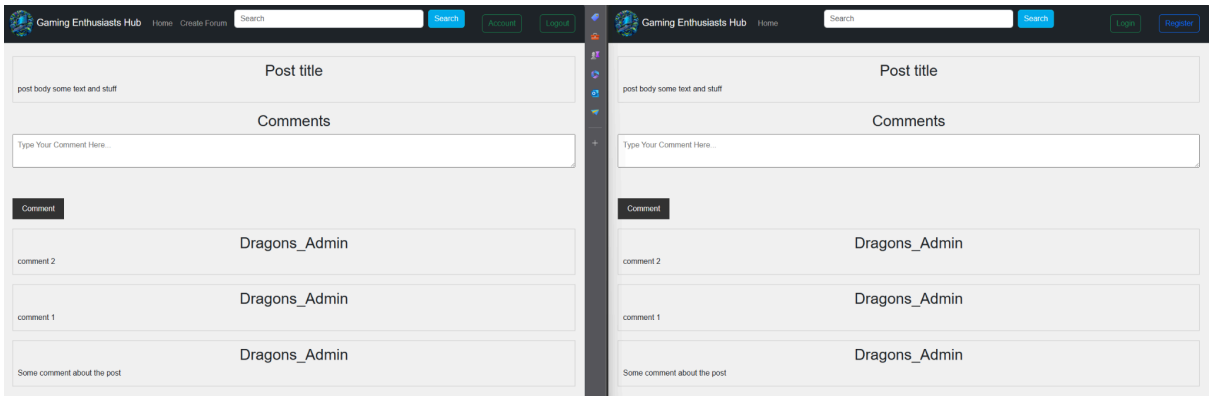
Turns into leave button if in forum




asynchronous updates (below are two separate windows):

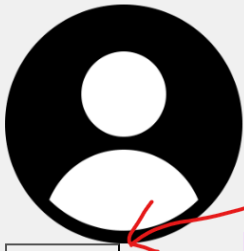


both windows update without reloading (works for posts in forums and comments on posts):



can upload profile picture


 Gaming Enthusiasts Hub [Home](#) [Create Forum](#) [Search](#) [Account](#) [Logout](#)

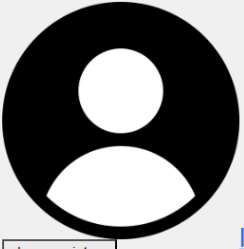


[change picture](#)

Username: Regular_User
Email: guy@gmail.com
Phone: 1231231234
First Name: Some
Last Name: Guy

[logout](#)

 Gaming Enthusiasts Hub [Home](#) [Create Forum](#) [Search](#) [Account](#) [Logout](#)



[change picture](#)


Username: Regular_User
Email: guy@gmail.com
Phone: 1231231234
First Name: Some
Last Name: Guy

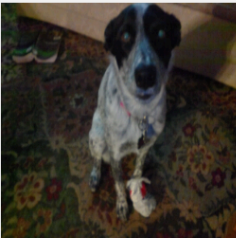
[logout](#)

about:blank - [InPrivate] - Microsoft Edge

about:blank

[Choose File](#) IMG_20091..._233435.jpg [Upload](#)

 Gaming Enthusiasts Hub [Home](#) [Create Forum](#) [Search](#) [Account](#) [Logout](#)




[change picture](#)


Username: Regular_User
Email: guy@gmail.com
Phone: 1231231234
First Name: Some
Last Name: Guy

[logout](#)

logged in as admin of forum:



[Gaming Enthusiasts Hub](#)[Home](#)[Create Forum](#)



change picture

[logout](#)

Username: Dragons_Admin


Email: dragon@dogma.com

Phone: 1231231234

First Name: John

Last Name: Dogma

Admin option appears for forum or site admin:



[Gaming Enthusiasts Hub](#)[Home](#)[Create Forum](#)

Dragons Dogma 2

Leave

Admin

Title

Post Text

Post

post 2

more text


Like

Post title

post body some text and stuff

Like

can delete posts if admin, can delete forum if you are the forum owner or site admin



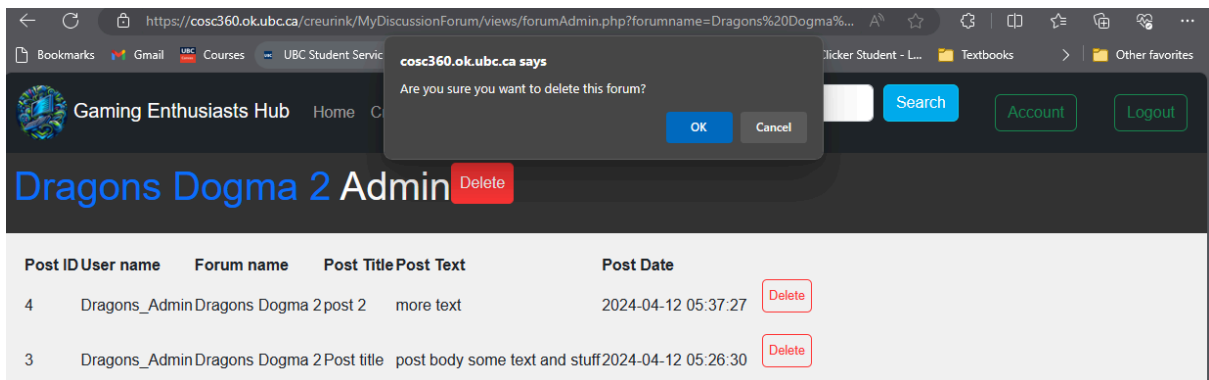
[Gaming Enthusiasts Hub](#)[Home](#)[Create Forum](#)

Dragons Dogma 2 Admin

Delete

Post ID	User name	Forum name	Post Title	Post Text	Post Date	
4	Dragons_Admin	Dragons Dogma 2	post 2	more text	2024-04-12 05:37:27	Delete
3	Dragons_Admin	Dragons Dogma 2	Post title	post body some text and stuff	2024-04-12 05:26:30	Delete

popup confirms before deleting to prevent accidents



Features

- Client-Side Validation: Forms provide immediate feedback on user input, as shown in the provided images.
- Server-Side Implementation: Includes secure account creation and login, data retrieval, and post submission.

Unique Features

- Post creation Tracking: Records and shows the date of post creation
- Visual Updates: Charts and graphs display site usage statistics.
- Collapsible Threads: Users can collapse threads without page reloading for better navigation.

Developer's Perspective

Implementation Details

- PHP and JavaScript: These languages form the backbone of server-side logic and client-side dynamics.
- Pages are loaded using html and javascript where possible to reduce the server load of running all views in php
- PHP is used to perform secure validation, database access, and server logic
- Database Management: MySQL database is utilized for storing user information, forum posts, and chat threads.


High-Level Functionality

- Search and Analysis: Users can search topics and analyze discussion trends.
- Asynchronous updates of posts and comments
- Security: Implementation of client-side and server-side security, including hashed passwords and input sanitization.

Known Limitations

- Scalability: The current system may require optimization for higher user volumes.
- Feature Completion: Some features, such as user profile customization, are still in development.

Collapsible design



change picture

Username: kaka

Email: ridi.pillaca@gmail.com

Phone: 2364575593

First Name: Richard

Last Name: Pillaca

Testing

Client-Side Testing

Client-side testing is performed directly within the web browser to ensure all user-facing features behave as expected:

- **Form Validation:** All forms undergo thorough tests to validate correct input and to ensure meaningful error messages are displayed.
- **Authentication Processes:** The login and registration workflows are tested to confirm they are user-friendly and secure.
- **Profile Image Upload:** The upload feature is tested to restrict file types to jpg, jpeg, and png formats, with error messages for non-compliant files.

Server-Side Testing

Server-side testing involves scrutinizing the backend processes and server responses:

- **Error Handling:** Extensive testing of the try-catch mechanisms ensures that the system gracefully handles exceptions and maintains consistent performance under adverse conditions.
- **Password Security:** Testing ensures that passwords are properly hashed before storage, safeguarding user credentials against potential threats.
- **Database Security:** Interaction with the database, particularly user account information handling, is tested to ensure data is securely managed and transactions are executed without compromise.
 - Used of PDO prepared statements
 - Profile Image Upload

Testing Outcomes

Our approach has confirmed that the essential features, from registration to profile management, perform reliably. Error messages guide the user experience without exposing the system to risk, and security practices, such as password hashing, are upheld consistently.

1. Error handling

Username:
kaka

Username must be 3-15 characters using only letters, numbers, or underscores

Phone:

Please enter a valid phone number

Email:

Password:

Please enter a password between 6 and 8 digits including a number and an upper and lowercase letter

Repeat Password:

Passwords do not match

First Name:

Last Name:

Last Name:

Username:

Email:
a

Please include an '@' in the email address. 'a' is missing an '@'.

Username
kaka

Username not found

Password

Login

Don't have an account? [Register here.](#)

Username
kaka

Password

Password and username don't match

Login

Try catch statements

```
<?php
function connectdb(){
    try {
        $connString = "mysql:host=localhost;dbname=db_37431970";
        $user = "37431970";
        $pass = "37431970";

        $pdo = new PDO($connString, $user, $pass);
        $pdo->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);

        return $pdo;
    } catch(PDOException $e){
        error_log("Connection failed: " . $e->getMessage());
        return null;
    }
}

function closedb($pdo){
    $pdo = null;
}
```

Gaming Enthusiasts Hub Create Forum

Forum Name:

Forum name taken

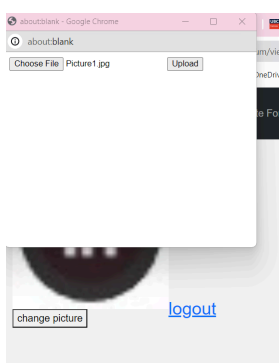
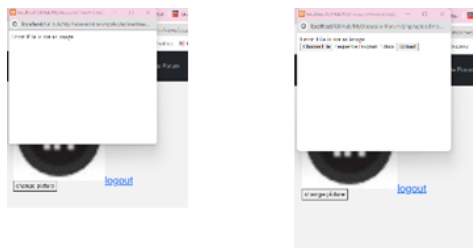
Create Forum

2. Security

User password is hashed

username	pass	startdate	email	phone	firstname	lastname	profileimage	
ete	kaka	6707371533c9c830b72c04edf3c93057	2024-04-09	ridi.pillaca@gmail.com	2364575593	Richard	Pillaca	[BLOB - 1.6 KiB]

Profile image upload



PDO STATEMENTS

```
$pdo = connectdb();
if(!$pdo){
    echo "Error connecting to database";
    exit();
}
$sql = "SELECT forumname FROM forums WHERE forumname = ?";
$stmt = $pdo->prepare($sql);
$stmt->execute([$forumname]);
if($stmt->fetch()){
    $_SESSION['errors']['forumname'] = 'Forum name taken';
    header("location: ../views/createForum.html?errors=1");
    exit();
}
else{
    $sql = "INSERT INTO forums (forumname, ownername, creationdate) VALUES (?, ?, ?)";
    $stmt = $pdo->prepare($sql);
    $stmt->execute([$forumname,$username,date("Y-m-d H:i:s")]);

    $sql = "INSERT INTO inform (username, forumname, isadmin, joindate) VALUES (?, ?, ?, ?)";
    $stmt = $pdo->prepare($sql);
    $stmt->execute([$username,$forumname,True, date("Y-m-d H:i:s")]);
    $stmt->execute([$username,$forumname,True, date("Y-m-d H:i:s")]);
}
```

```
$pdo = connectdb();
$sql = "SELECT forumname FROM forums WHERE forumname = ?";
$stmt = $pdo->prepare($sql);
$stmt->execute([$forumname]);
$forums = $stmt->fetchAll();
if (count($forums) == 0) {
    echo(json_encode(array(0)));
    exit();
}

$sql = "SELECT postid, username, posttitle, posttext, postdate FROM posts WHERE forumname = ?";
$stmt = $pdo->prepare($sql);
$stmt->execute([$forumname]);
$post = $stmt->fetch();
```

Member Contributions

Member 1: Gerard Escolano

- **Role & Responsibilities:**
 - Backend development, database interaction and support with front end design
- **Time Investment:**
 - Dedicated between 40 and 50 hours to the project
- **Efforts & Work:**
 - Improved front end responsiveness
 - Added individual post pages
 - Implemented comments in posts
 - Implemented like functionality
 - Used JavaScript and PHP to interact with the database
- **Comments:**
 - Used different techniques for different pages, but avoided working directly from a php file and updating html views by using php along with JavaScript.

Member 2: Caleb Reurink

- **Role & Responsibilities:** Back-end development, database interactions, uploading site to COSC remote server
- **Time Investment:** dedicated 90 hours to the project
- **Efforts & Work:**
 - wrote database structure
 - Implemented login and registration
 - Added ability to upload and display profile picture
 - Implemented creating, deleting, joining, leaving, and posting in forums
 - Used JavaScript and PHP to update of posts from database across users as new posts are added
 - Implemented admin control of forums and posts
 - Posted site to remote server
 - Testing new features as they are added
- **Comments:** I used JavaScript promises instead of AJAX for updating posts from the database, but functionally it is the same.

Member 3: Richard Pillaca

- **Role & Responsibilities:** Front-end, implementing the navigation bar and the search bar functionality, enhance user interface.
- Time Investment: dedicated 40 hours to the project
- Efforts & Work:
 - Designing and coding the responsive navigation bar.
 - Integrating the AJAX-powered search feature, allowing for live search results without page reloads.
 - Collaborating closely with the backend team to ensure search results.
- Comments: The search bar functionality was particularly challenging. Debugging PHP scripts to get accurate and instant search results required persistence and a deep dive into PHP error logs and exception handling.