CPSC 304 Project Cover Page

Milestone #: ____4____

Date: ___2021/11/25________

Group Number: ____70______

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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

Project Description

Repository link: https://github.students.cs.ubc.ca/CPSC304-2021W-T1/project_e8j3b_h5l3b_k8g3b

We have created a blog platform. In general, it contains three main parts. First, we have a login page, where user can login, sign up and find their password back. Second, there are community_list, blog_list and topic_list, where user can choose a community, and view, post and update blogs inside this community. Under each blog, the user can view, post and update comments. For communities, they will have their topic(s). Third, there is a administrator part, including admin and super admin, which can change user's ban status, and view basically everything in the blog platform (the previous two parts). I have accomplished the functions described above.

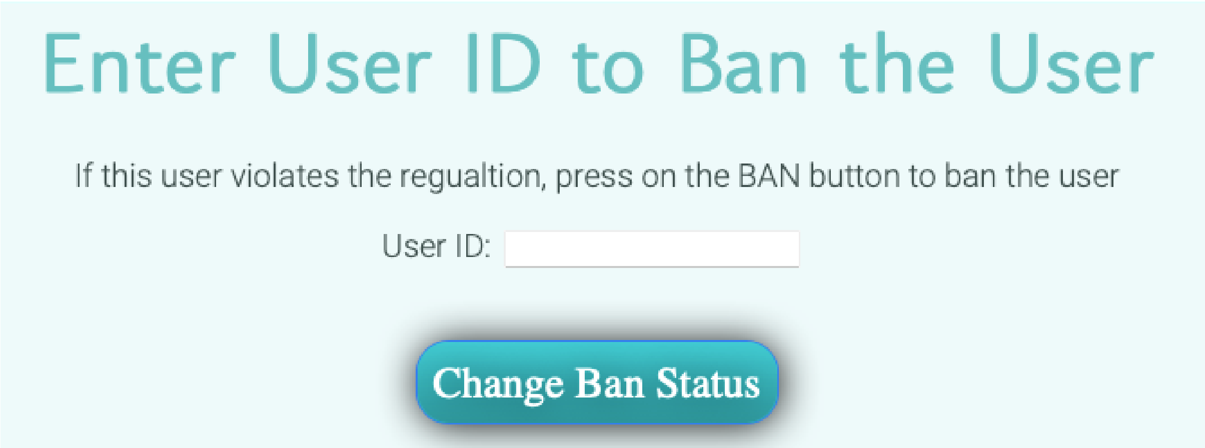
Specifically, user can go to login.html to enter their username and password (which then bring to the useer's community page). If the user want to register, then he/she can click the sign up button and fill in the information required in that page. If the user forgets his/her password, he/she can click the forget password button and use the security question to find the password.

In the superAdmin.php, the super administrator can access any data (basically any table here) by giving the table name, attributes that he/she want, and a selection condition. He/she can also update the vip level and the preffered color, and also view the number of users group by their ban status. He/she also can set a minimum number of users while viewing the number of users grouped by the ban_status.

Admin Instruction:

link to the page: https://www.students.cs.ubc.ca/~rjin02/admin.php

Webpage Title: Powerful Admin
Functionalities' explanation with images:
1.



Enter User ID to Ban the User

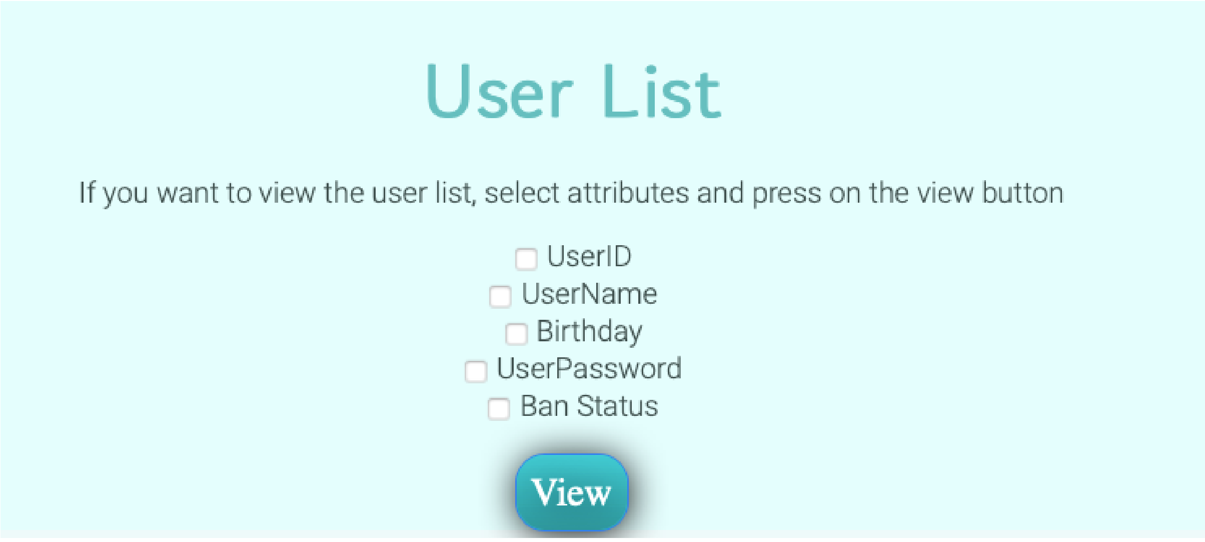
If this user violates the regualtion, press on the BAN button to ban the user

User ID:

You can enter the user ID and click the "change ban status" button if you want to Ban the user from posting blogs & comments if the user is not banned already; however, giving users their ability to post and comment again also by clicking this button if they are in Banned status.

To be clear, change their ban status by entering their ID and don't forget to click that button. If you wanna verify this functionality, you can use the next function (User List) to check whether their ban status has really changed.

2.



User List

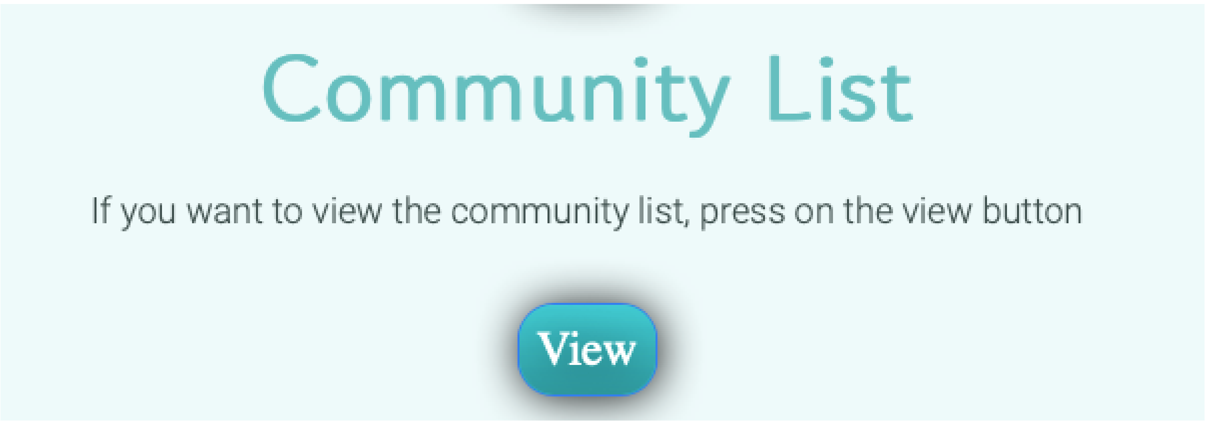
If you want to view the user list, select attributes and press on the view button

□ UserID
□ UserName
□ Birthday
□ UserPassword
□ Ban Status

As an admin, you can view all data related to your users. You are the king of this web, you can know the password they created (I'm kidding, user data security is super important! We put the check box here only for your convenience so you can log in to different accounts to check their posts and their interested communities).

As being said, select at least 3 check boxes to view corresponding data of all users of the website.

3.



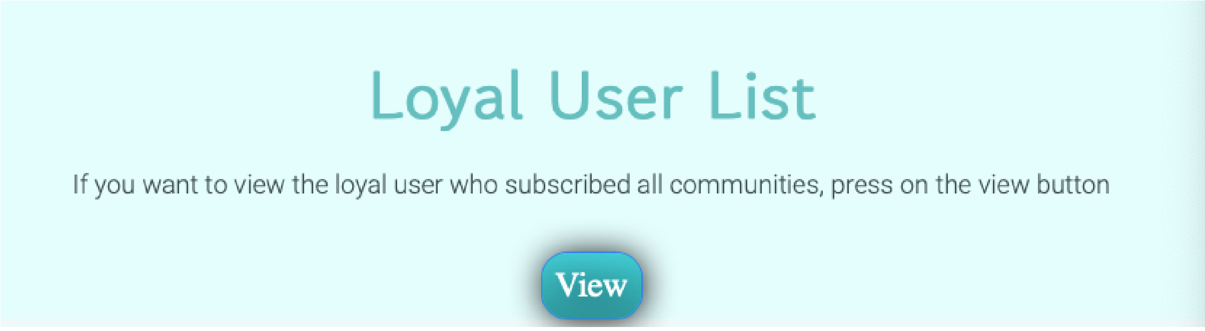
Community List

If you want to view the community list, press on the view button

This functionality helps you better monitor all the communities. Maybe in the future version, you can do more data analysis on this one to better understand your user groups.

Anyway, click the “View” button and it will provide you with a list of communities with community level.

4.



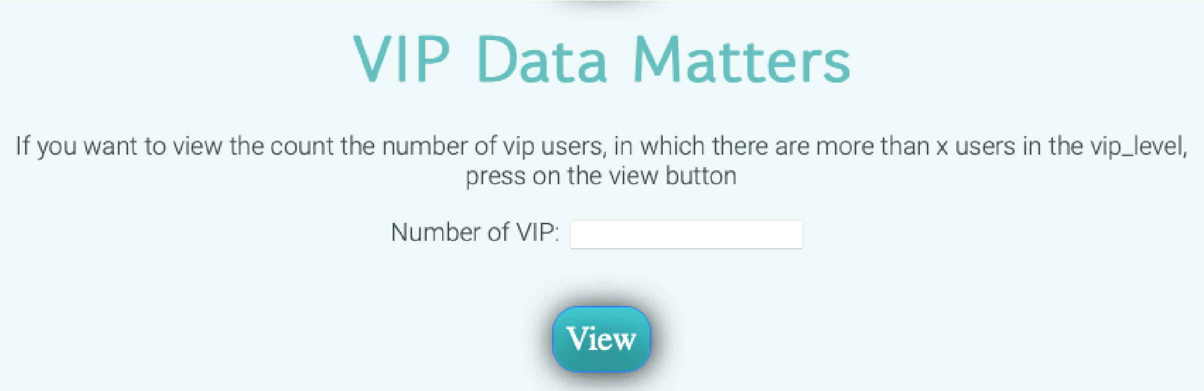
Loyal User List

If you want to view the loyal user who subscribed all communities, press on the view button

Here comes with the Loyal user list. You know we will have trillions of users, but we really want to see who is our super super addicted loyal user who subscribed to all communities.

It’s easy, click the “View” button, you will get a list of userID who subscribed to all the communities.

5.



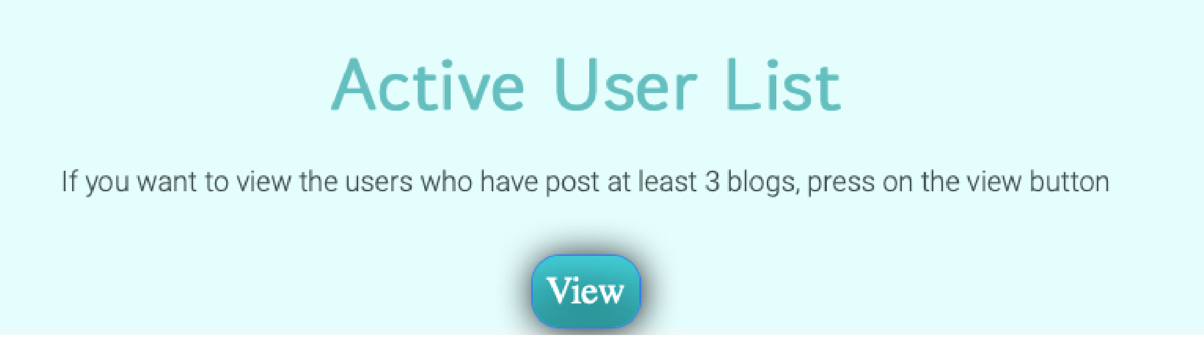
VIP Data Matters

If you want to view the count the number of vip users, in which there are more than x users in the vip_level, press on the view button

Number of VIP:

Enter a number. This query will give you the count of vip_users in which each vip_level must have more than the number of vip_users given by you.

6.



Active User List

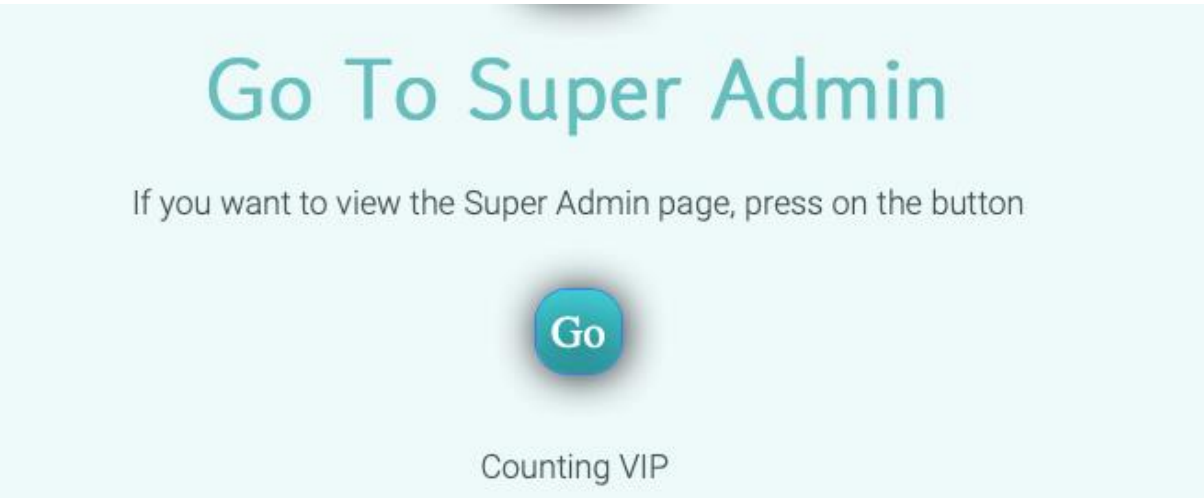
If you want to view the users who have post at least 3 blogs, press on the view button

We define users who have posted at least 3 blogs as an active user, otherwise they are kind of “zombie users”.

You can view active user’s user ID and numbers of blogs they have posted.

In the future this will come handy because we really don’t want to analyse any data about “zombie users”. As we all know, we will squeeze money from active users, Oui!

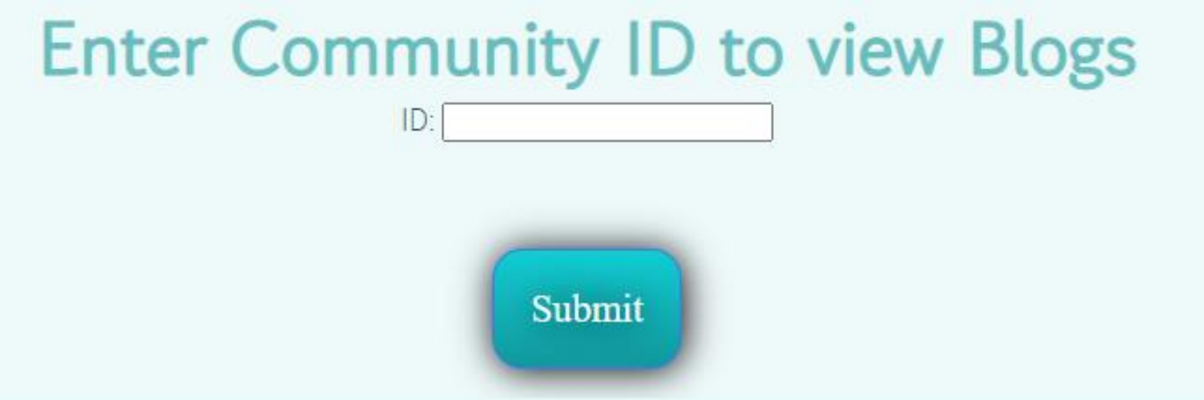
7.


Go To Super Admin

If you want to view the Super Admin page, press on the button

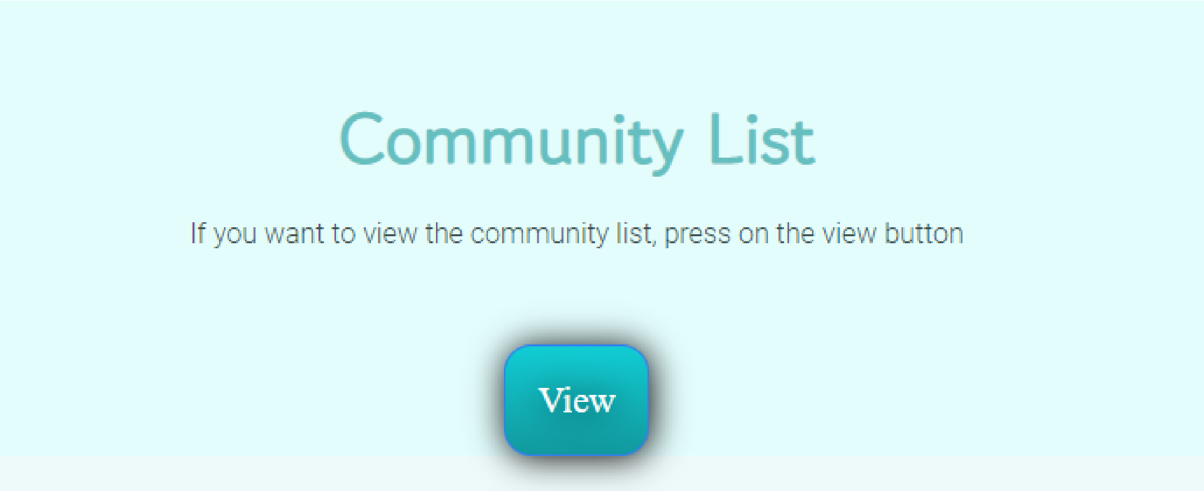
Last one you can interact with in the admin page is navigate you to the super admin page and gives you even more power as a strong admin as titled LOL. Have Fun!

community_list Instruction:
You can get to this page after login.
Here is the link (If you click this without login first you will be redirected to the login page): https://www.students.cs.ubc.ca/~rjin02/community_list.php
Webpage Title: Community
Functionalities' explanation with images:

1. 
   Enter Community ID to view Blogs

   ID:

   If you know the community ID you want to view, you can enter the ID here and click submit to go to the community detail page (which shows the blogs within that community).

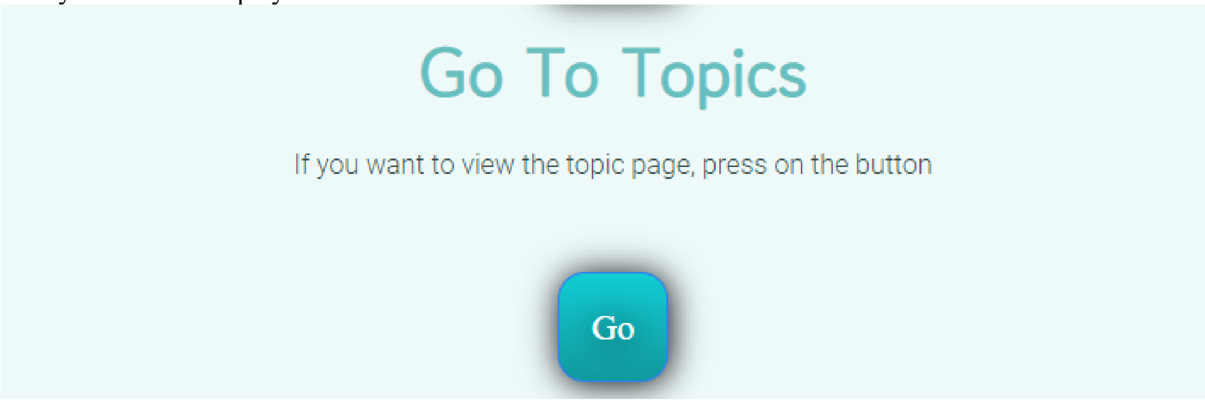


Community List

If you want to view the community list, press on the view button

2.

If you want to view the community list to decide which community to view, click the view button here and the community list will be displayed.



Go To Topics

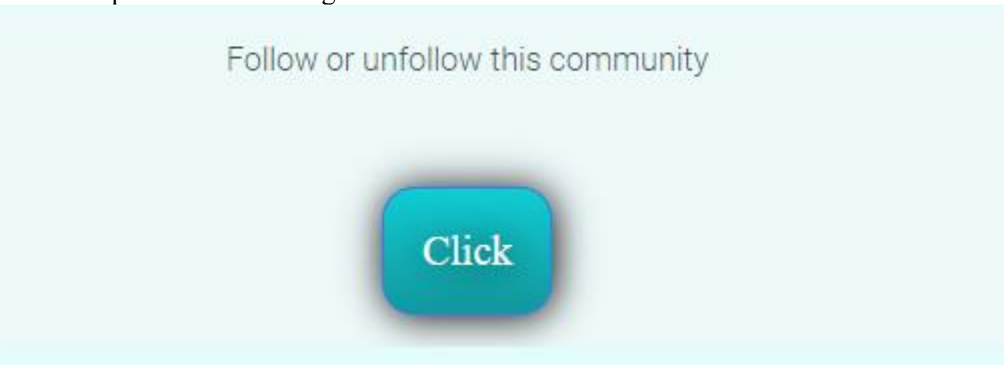
If you want to view the topic page, press on the button

3.

If you want to view the communities by their topics, you can click the go button and go to the topic page.

blog_list Instruction:

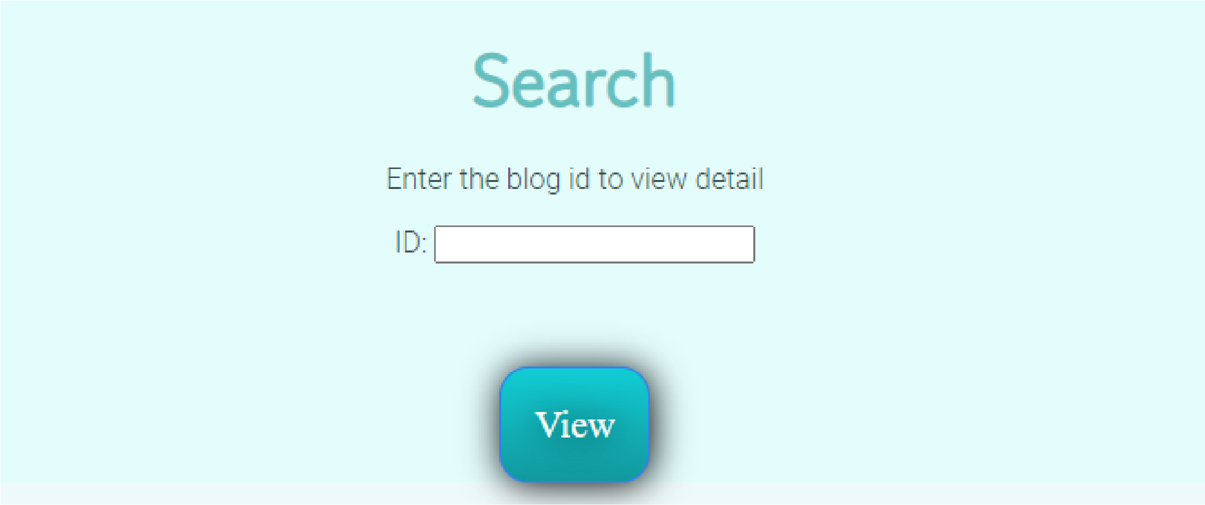
You can get to this page after login and after choosing a community in the community_list page.
Here is the link (If you click this without doing things above you will be redirected): https://www.students.cs.ubc.ca/~rjin02/blog_list.php
Webpage Title: Blog List
Functionalities' explanation with images:



Follow or unfollow this community

1.

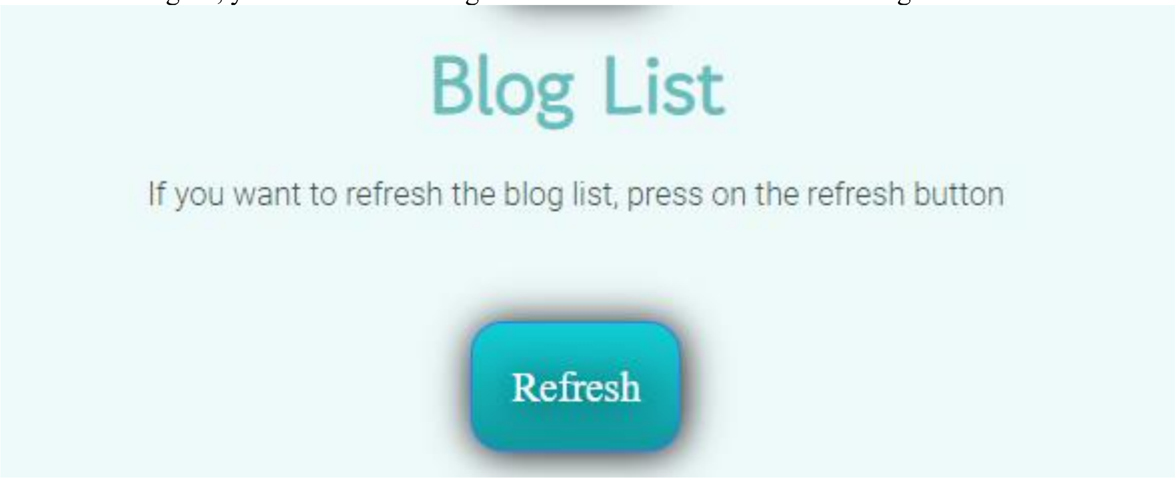
You can follow or unfollow this community by clicking the click button here



Search

Enter the blog id to view detail

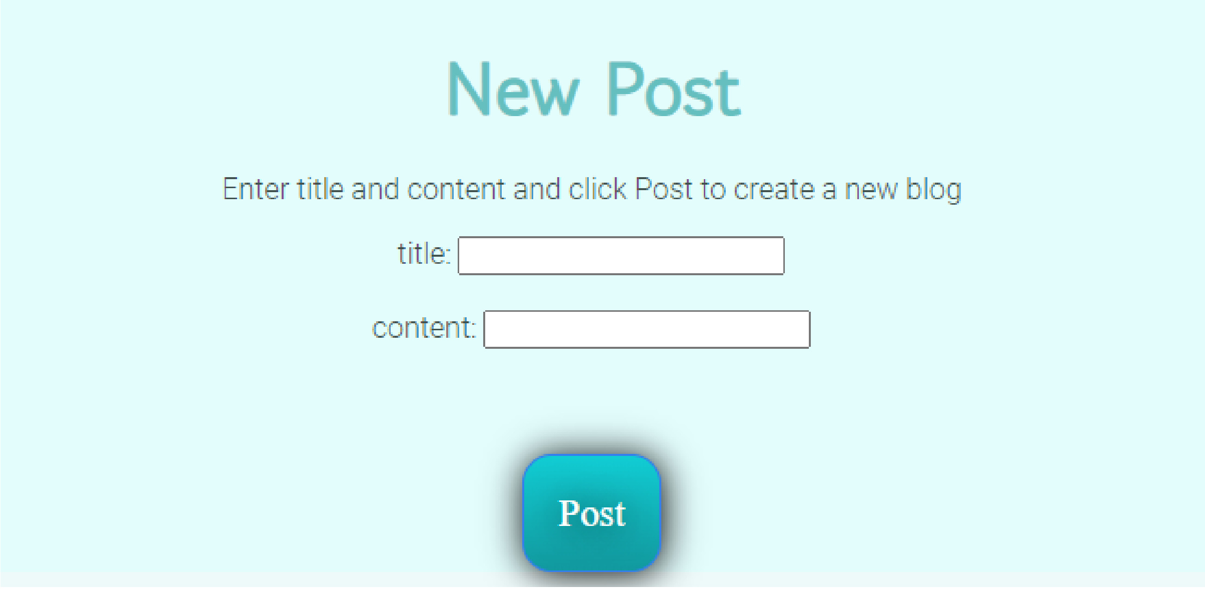
2.
If you know the blog ID, you can enter the blog ID here to view the details of the blog.



Blog List

If you want to refresh the blog list, press on the refresh button

3.
You can view the blog list in this community by clicking the refresh button.

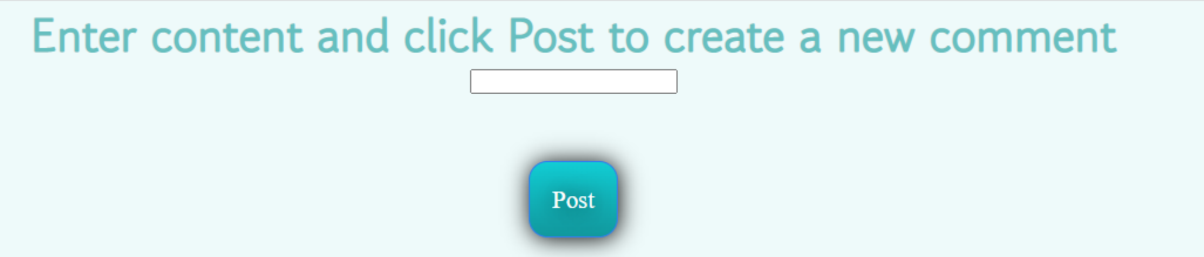


New Post

Enter title and content and click Post to create a new blog

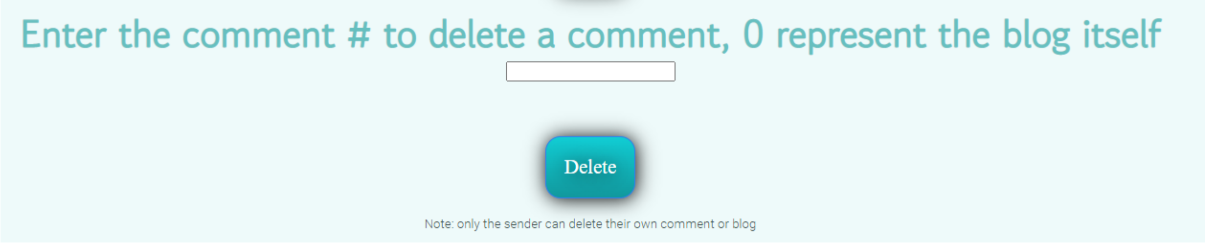
4.
If you want to create a new post in this community, you can enter the title and content here and click the post button to share anything you want. Note that if you are banned, you cannot create a blog.

blog_detail Instruction:
You can get to this page after login and after choosing a community in the community_list page and choosing a blog in the blog_list page.
Here is the link (If you click this without doing things above you will be redirected): https://www.students.cs.ubc.ca/~rjin02/blog_detail.php
Webpage Title: Blog Detail
Functionalities' explanation with images:

1. 

Enter content and click Post to create a new comment

If you want to comment under this post, you can enter the content here and click the post button. Note that if you are banned, you cannot send a comment.

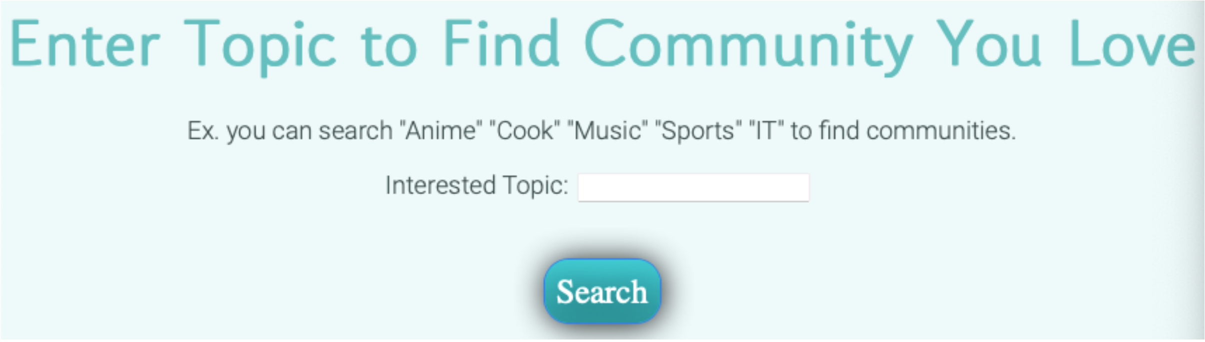
2. 

Enter the comment # to delete a comment, 0 represent the blog itself

Note: only the sender can delete their own comment or blog

If you want to delete any comment or the whole blog, you can enter the order of the comment and click the click button. If you enter 0, you will delete the whole blog. Note that only the sender can delete their own comment or blog.

Topic List Instruction:
You can get to this page after login.
link to the page: https://www.students.cs.ubc.ca/~rjin02/topic_list.php
Webpage Title: Topics you Love
Functionalities' explanation with images:

1. 

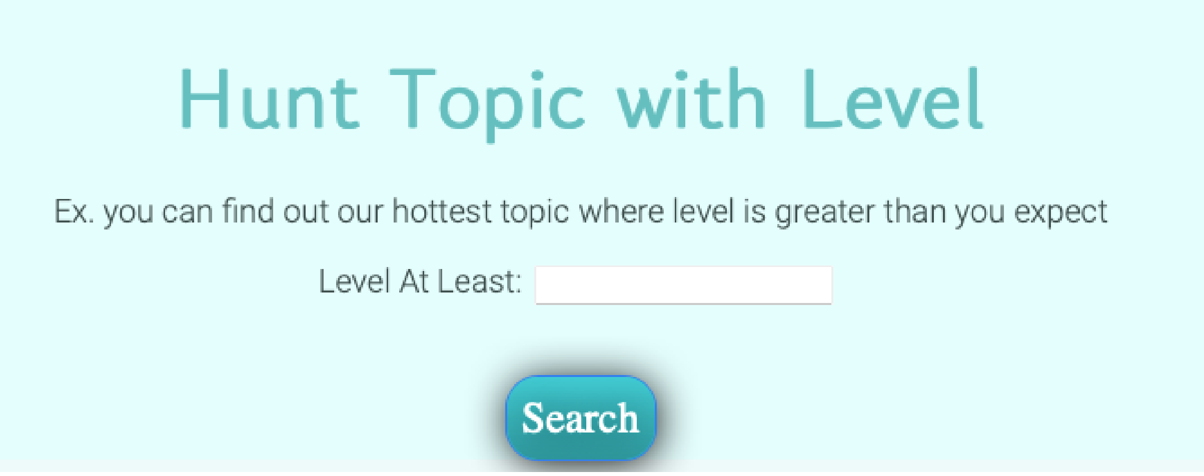
Enter Topic to Find Community You Love

Ex. you can search "Anime" "Cook" "Music" "Sports" "IT" to find communities.

Interested Topic:

Hey my dear users, if you are interested in any topics, search it by entering the topic name and click the "Search" button! We will provide you with communitie (we will give you the ID) that discuss the topic you are interested in. Trust me, you will like them. Don't feel too bad if you didn't find communities with that topic, some days you will have them as our community grows (if you pay me 1,000,000 USD rn I can sacrifice my final review time for cs304 and create one for you rn).

2.



Hunt Topic with Level

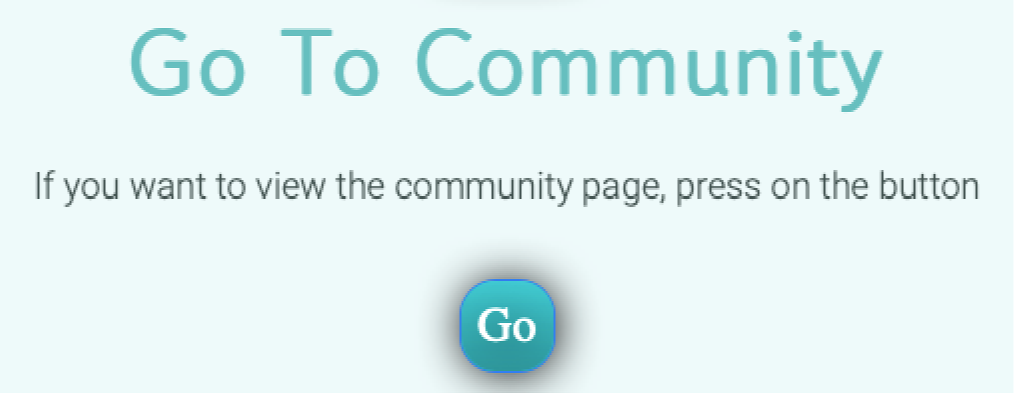
Ex. you can find out our hottest topic where level is greater than you expect

Level At Least:

Some topics are on the trend and you might like them! We define our topic popularity by checking how many communities are about that topic.

What you can do with this is enter the community level filter that you would like to apply. For example, if you wanna check all the communities that their level is at least 3, you enter 3 and click the button, we will provide you the number of communities that are related to certain topics.

3.



Go To Community

If you want to view the community page, press on the button

Okay, all the reasons you want to study this page is to join the community, and now, we navigate you there!!! Here we go (click the "Go" button)!

Our schema has changed for this MileStone 4. We deleted the Birthday_Age schema that we intentionally made for decomposition in MileStone 2, as this schema will cause problems in creating the foreign key.

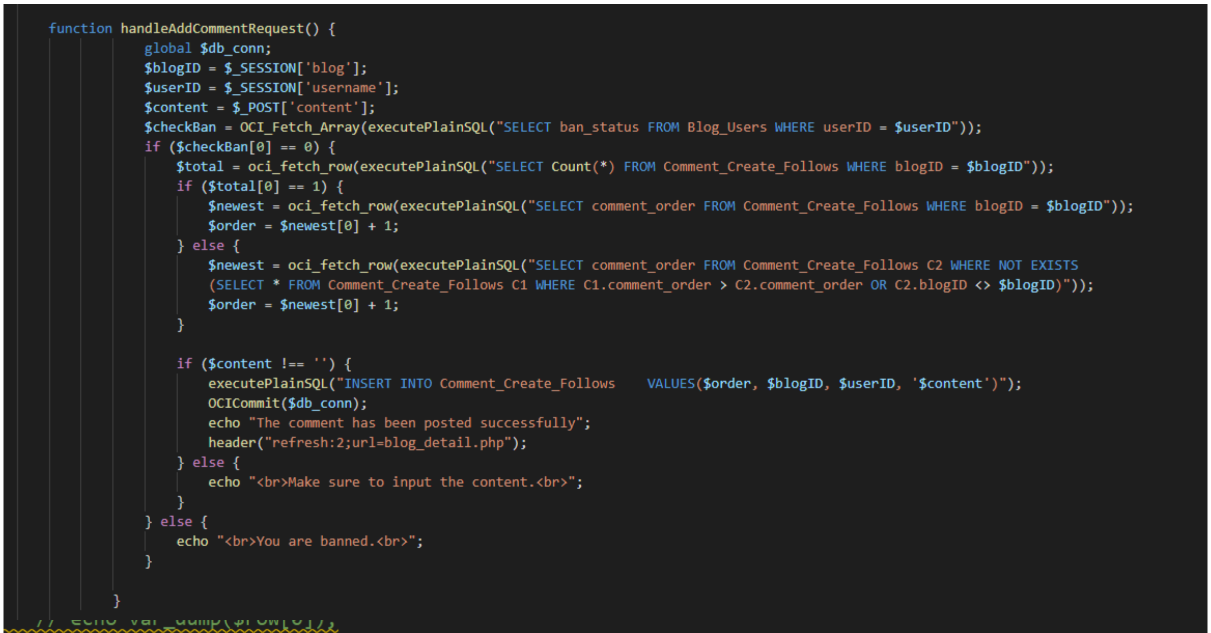
ScreenShots:

Note: we only have screenshots for each function at a time, which means that we have not contain the hole page because we take the screenshots while progressing other functions. For example, there may be insertion and update in one page in our final project, but we have only taken screenshots of insertion part for the insertion operation (but we add another function later) in this page (and update in update operation in this file).

Insert Operation:

File: blog_detail.php (also register.php)

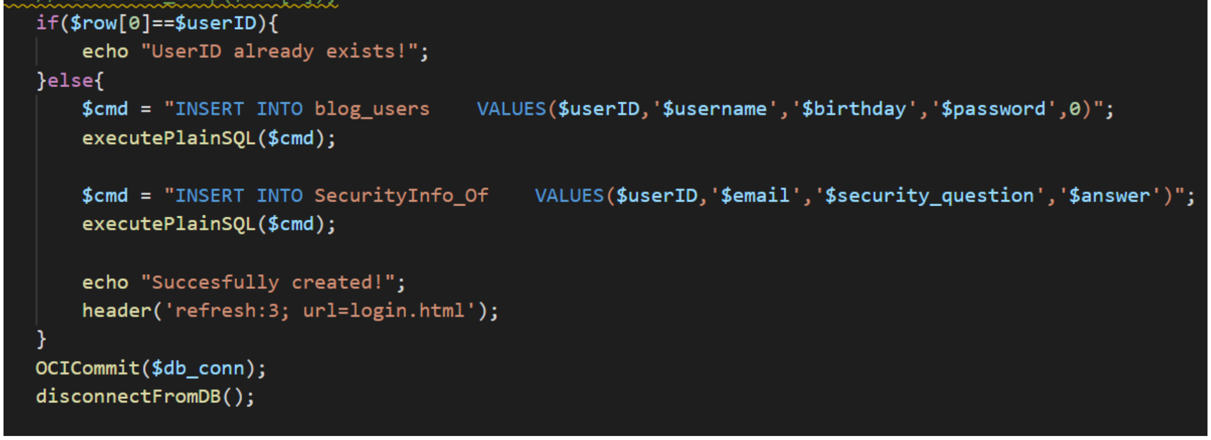
Code:



```
function handleAddCommentRequest() {
            global $db_conn;
            $blogID = $_SESSION['blog'];
            $userID = $_SESSION['username'];
            $content = $_POST['content'];
            $checkBan = OCI_Fetch_Array(executePlainSQL("SELECT ban_status FROM Blog_Users WHERE userID = $userID"));
            if ($checkBan[0] == 0) {
                $total = oci_fetch_row(executePlainSQL("SELECT Count(*) FROM Comment_Create_Follows WHERE blogID = $blogID"));
                if ($total[0] == 1) {
                    $newest = oci_fetch_row(executePlainSQL("SELECT comment_order FROM Comment_Create_Follows WHERE blogID = $blogID"));
                    $order = $newest[0] + 1;
                } else {
                    $newest = oci_fetch_row(executePlainSQL("SELECT comment_order FROM Comment_Create_Follows C2 WHERE NOT EXISTS
                    (SELECT * FROM Comment_Create_Follows C1 WHERE C1.comment_order > C2.comment_order OR C2.blogID <> $blogID)"));
                    $order = $newest[0] + 1;
                }

                if ($content !== '') {
                    executePlainSQL("INSERT INTO Comment_Create_Follows    VALUES($order, $blogID, $userID, '$content')");
                    OCICommit($db_conn);
                    echo "The comment has been posted successfully";
                    header("refresh:2;url=blog_detail.php");
                } else {
                    echo "<br>Make sure to input the content.<br>";
                }
            } else {
                echo "<br>You are banned.<br>";
            }

        }
```



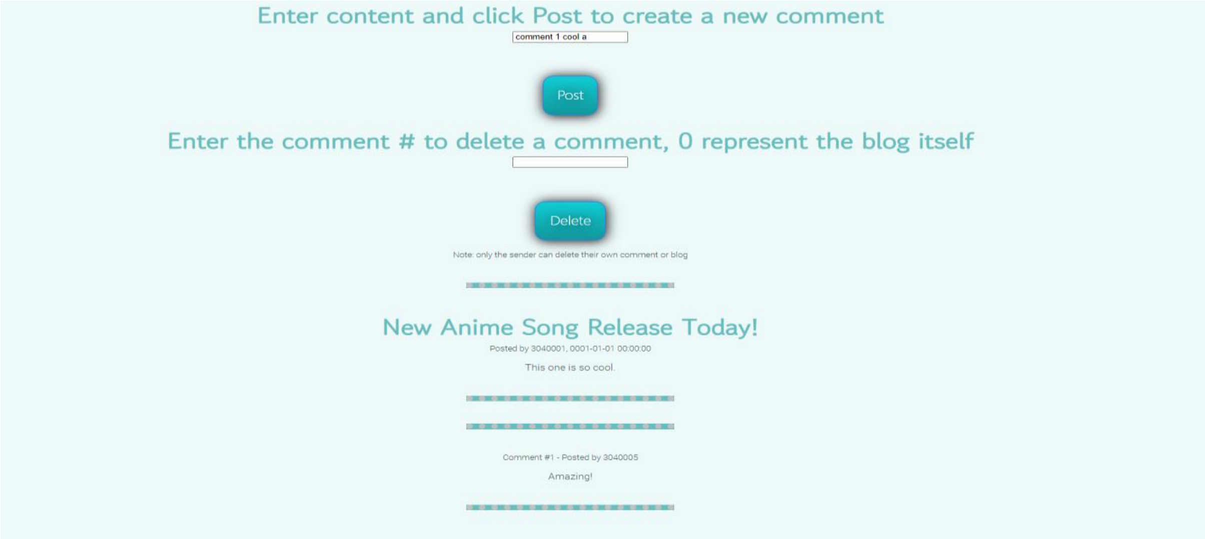
```
// echo var_dump($row[0]);
if($row[0]==$userID){
    echo "UserID already exists!";
}else{
    $cmd = "INSERT INTO blog_users    VALUES($userID,'$username','$birthday','$password',0)";
    executePlainSQL($cmd);

    $cmd = "INSERT INTO SecurityInfo_Of    VALUES($userID,'$email','$security_question','$answer')";
    executePlainSQL($cmd);

    echo "Succesfully created!";
    header('refresh:3; url=login.html');
}
OCICommit($db_conn);
disconnectFromDB();
```

ScreenShots:

Before:



Enter content and click Post to create a new comment

comment 1 cool a

Enter the comment # to delete a comment, 0 represent the blog itself

Note: only the sender can delete their own comment or blog

New Anime Song Release Today!

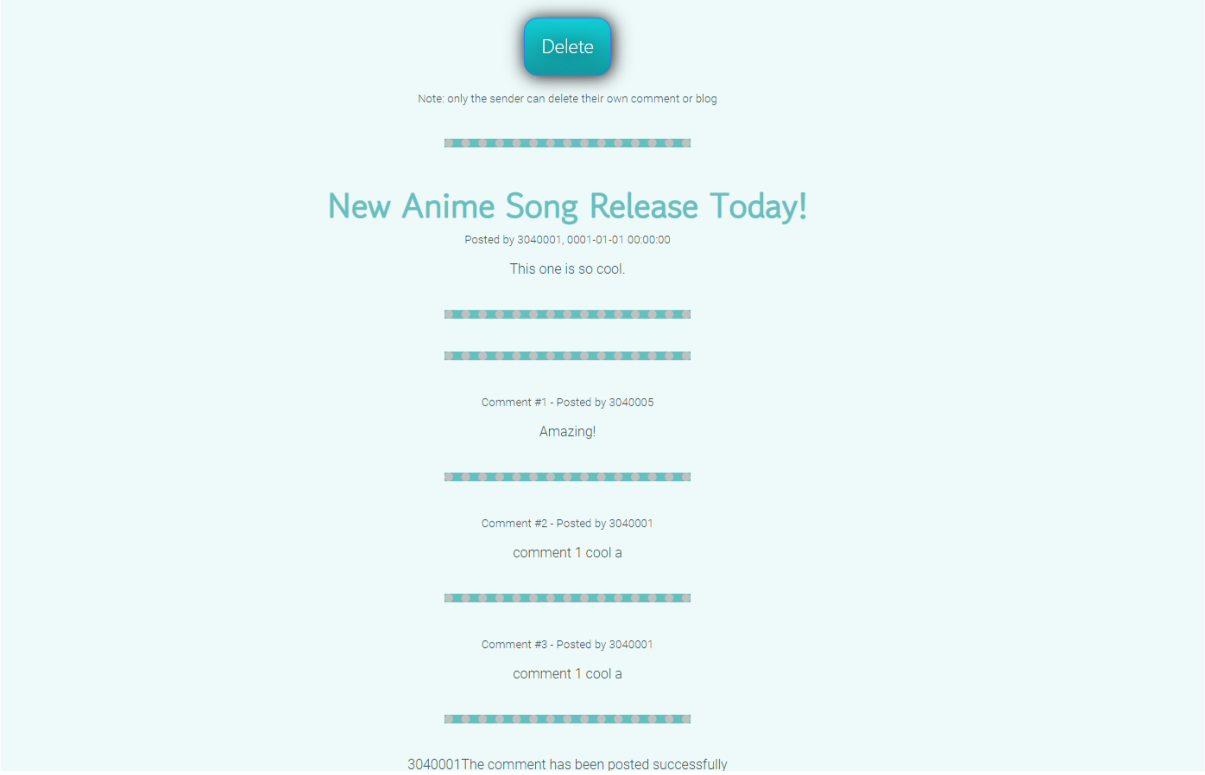
Posted by 3040001, 0001-01-01 00:00:00

This one is so cool.

Comment #1 - Posted by 3040005

Amazing!

After:



Note: only the sender can delete their own comment or blog

New Anime Song Release Today!

Posted by 3040001, 0001-01-01 00:00:00

This one is so cool.

Comment #1 - Posted by 3040005

Amazing!

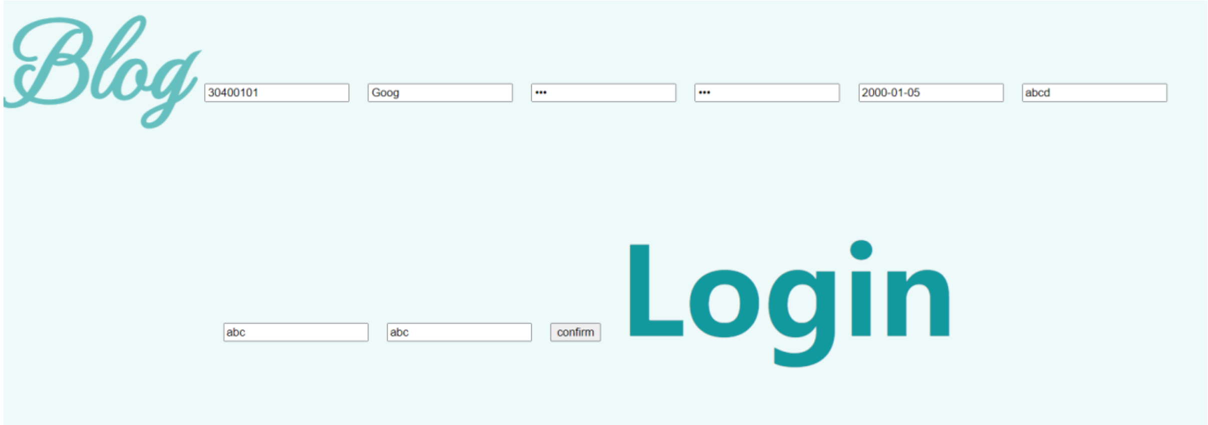
Comment #2 - Posted by 3040001

comment 1 cool a

Comment #3 - Posted by 3040001

comment 1 cool a

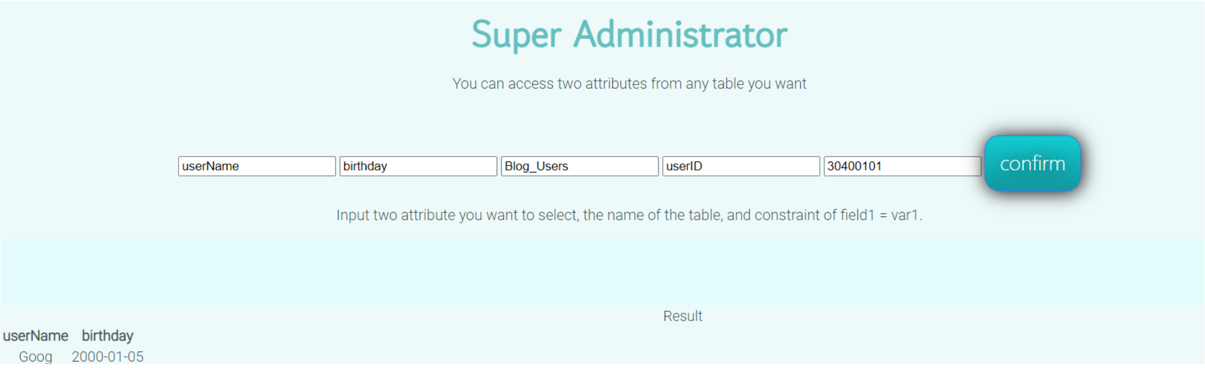
3040001The comment has been posted successfully



30400101 Goog ••• ••• 2000-01-05 abcd

abc abc

Let’s check:



Super Administrator

You can access two attributes from any table you want

userName birthday Blog_Users userID 30400101

Input two attribute you want to select, the name of the table, and constraint of field1 = var1.

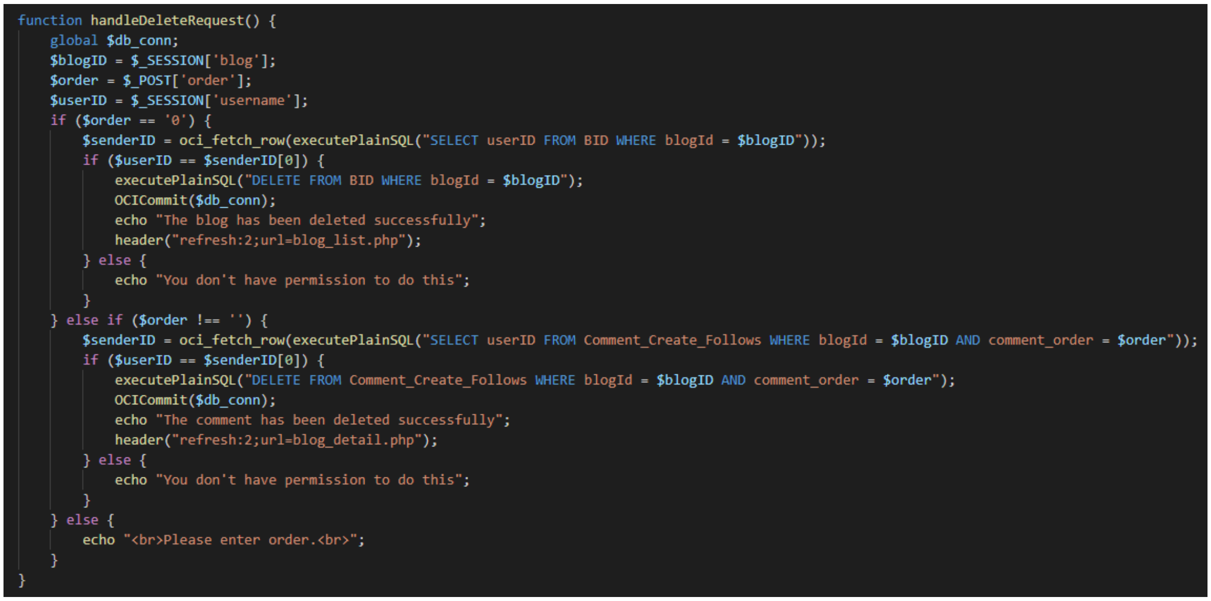
Result

userName	birthday
Goog	2000-01-05

Delete Operation:

File: blog_detail.php

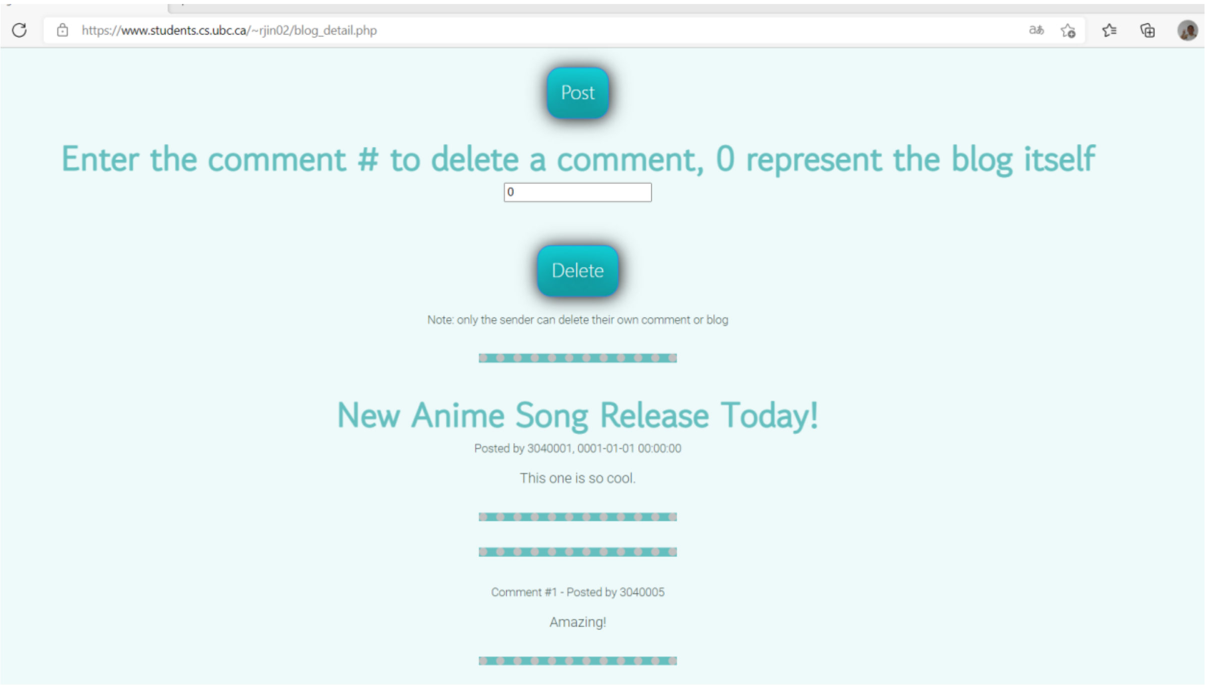
Code:



```
function handleDeleteRequest() {
    global $db_conn;
    $blogID = $_SESSION['blog'];
    $order = $_POST['order'];
    $userID = $_SESSION['username'];
    if ($order == '0') {
        $senderID = oci_fetch_row(executePlainSQL("SELECT userID FROM BID WHERE blogId = $blogID"));
        if ($userID == $senderID[0]) {
            executePlainSQL("DELETE FROM BID WHERE blogId = $blogID");
            OCICommit($db_conn);
            echo "The blog has been deleted successfully";
            header("refresh:2;url=blog_list.php");
        } else {
            echo "You don't have permission to do this";
        }
    } else if ($order !== '') {
        $senderID = oci_fetch_row(executePlainSQL("SELECT userID FROM Comment_Create_Follows WHERE blogId = $blogID AND comment_order = $order"));
        if ($userID == $senderID[0]) {
            executePlainSQL("DELETE FROM Comment_Create_Follows WHERE blogId = $blogID AND comment_order = $order");
            OCICommit($db_conn);
            echo "The comment has been deleted successfully";
            header("refresh:2;url=blog_detail.php");
        } else {
            echo "You don't have permission to do this";
        }
    } else {
        echo "<br>Please enter order.<br>";
    }
}
```

ScreenShots:

Before:



Enter the comment # to delete a comment, 0 represent the blog itself

0

Note: only the sender can delete their own comment or blog

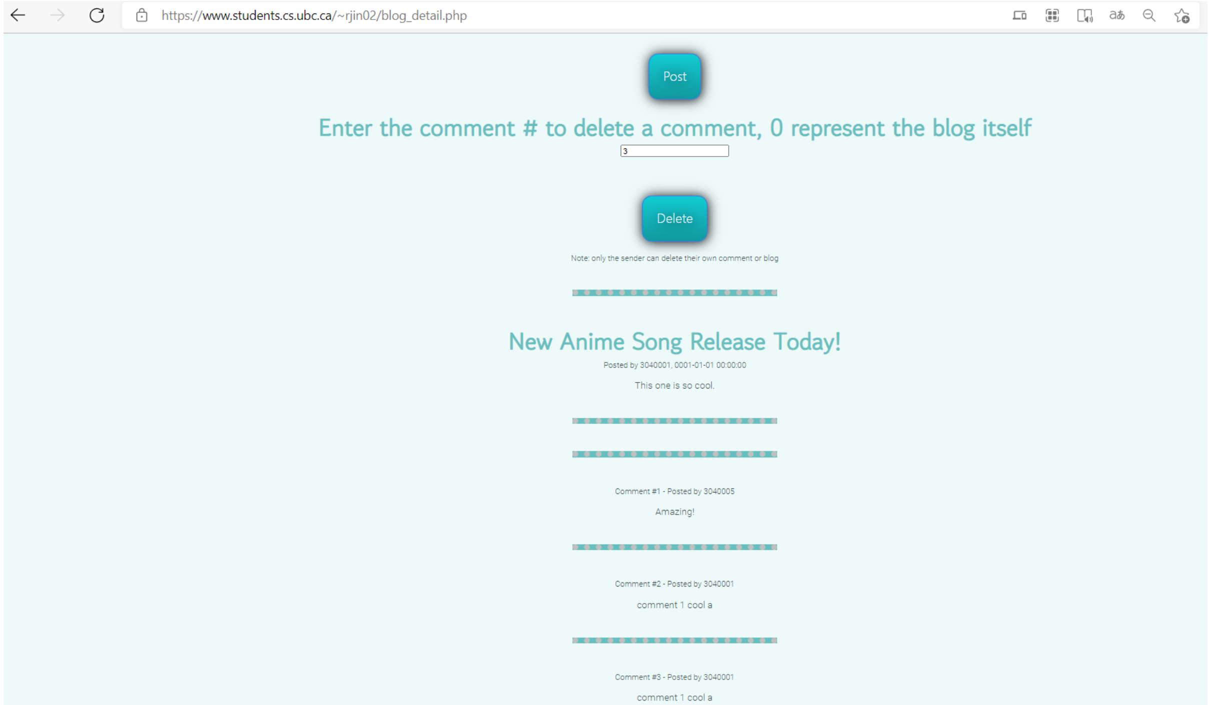
New Anime Song Release Today!

Posted by 3040001, 0001-01-01 00:00:00

This one is so cool.

Comment #1 - Posted by 3040005

Amazing!



Enter the comment # to delete a comment, 0 represent the blog itself

3

Note: only the sender can delete their own comment or blog

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This one is so cool.

Comment #1 - Posted by 3040005

Amazing!

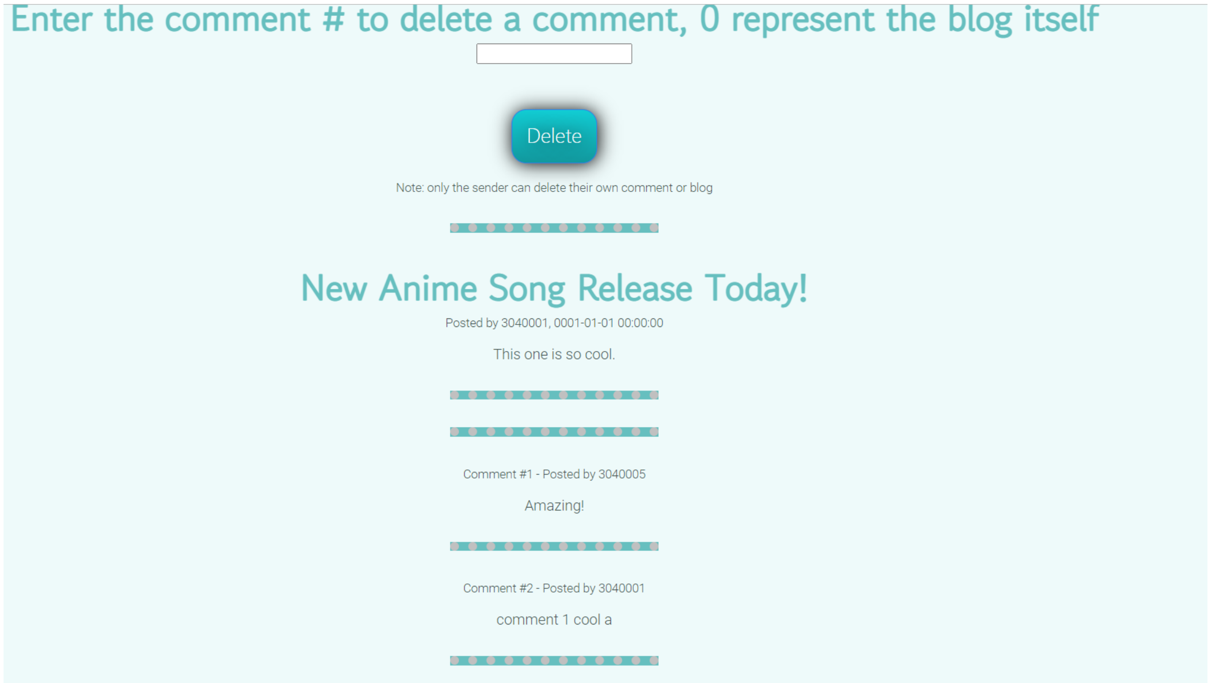
Comment #2 - Posted by 3040001

comment 1 cool a

Comment #3 - Posted by 3040001

comment 1 cool a

After (cascade):



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Note: only the sender can delete their own comment or blog

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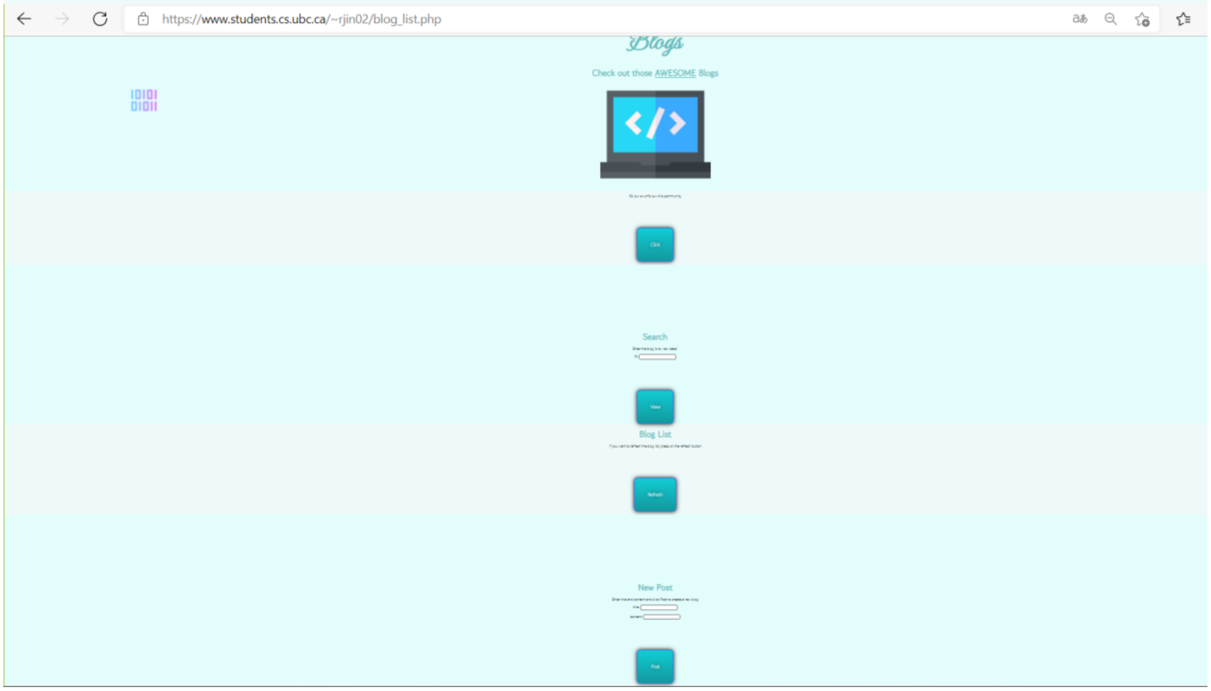
This one is so cool.

Comment #1 - Posted by 3040005

Amazing!

Comment #2 - Posted by 3040001

comment 1 cool a



https://www.students.cs.ubc.ca/~rjin02/blog_list.php

Blogs

Check out those AWESOME Blogs

Search

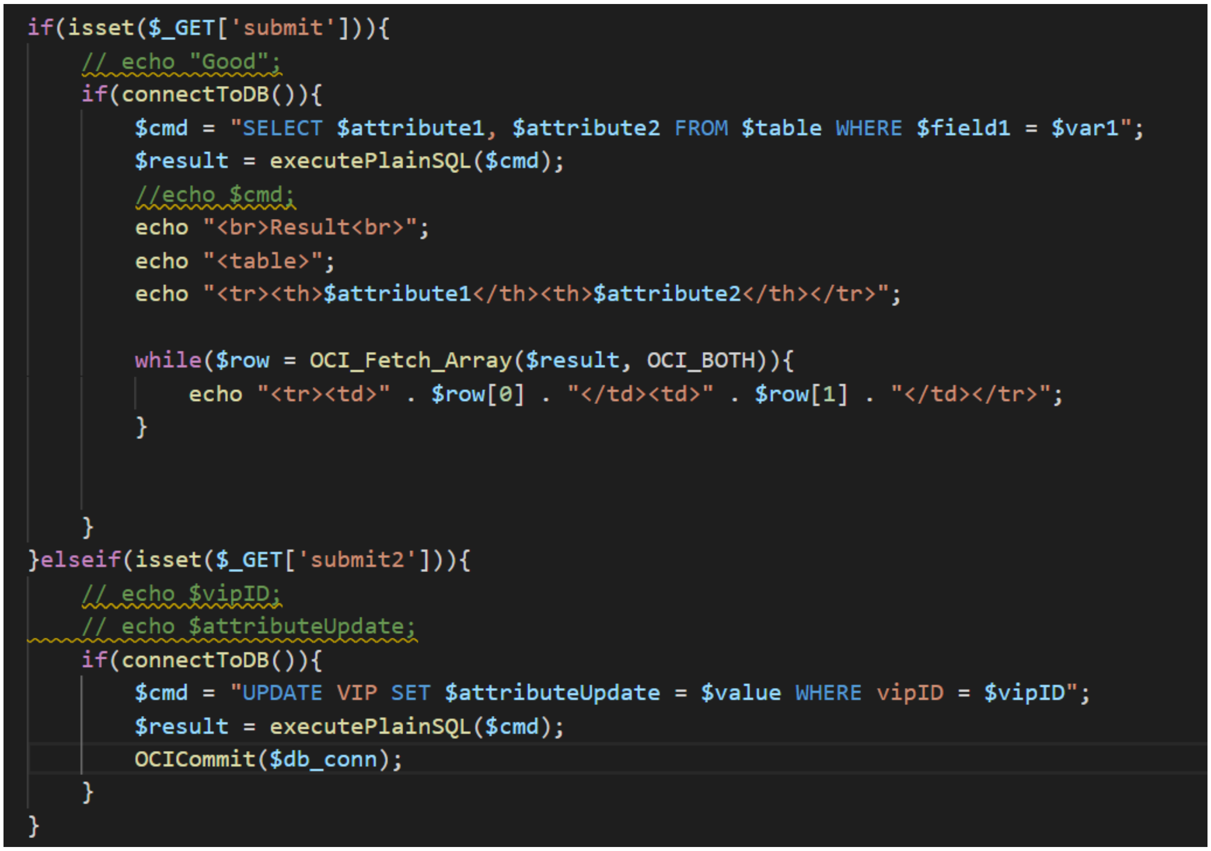
Blog List

New Post

Update Operation:

File: superAdmin.php

Code:

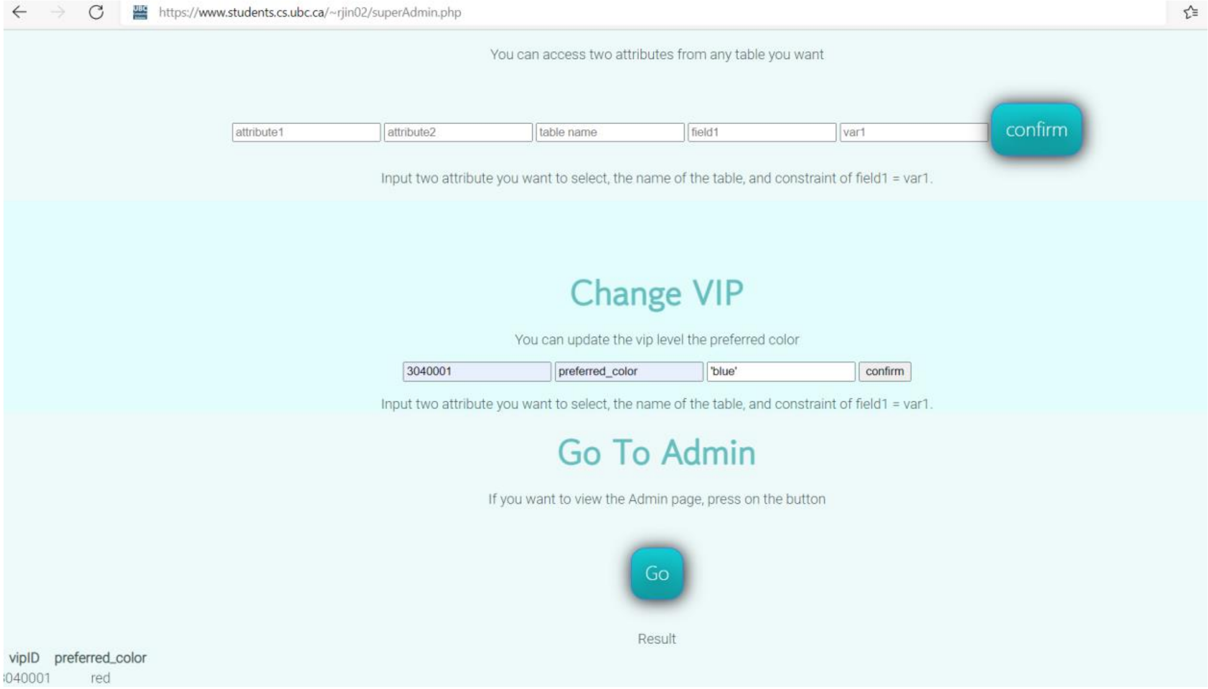


```
if(isset($_GET['submit'])){
    // echo "Good";
    if(connectToDB()){
        $cmd = "SELECT $attribute1, $attribute2 FROM $table WHERE $field1 = $var1";
        $result = executePlainSQL($cmd);
        //echo $cmd;
        echo "<br>Result<br>";
        echo "<table>";
        echo "<tr><th>$attribute1</th><th>$attribute2</th></tr>";

        while($row = OCI_Fetch_Array($result, OCI_BOTH)){
            echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td></tr>";
        }


    }
}elseif(isset($_GET['submit2'])){
    // echo $vipID;
    // echo $attributeUpdate;
    if(connectToDB()){
        $cmd = "UPDATE VIP SET $attributeUpdate = $value WHERE vipID = $vipID";
        $result = executePlainSQL($cmd);
        OCICommit($db_conn);
    }
}
```

ScreenShots:

Super Administrator can update vip_level and preferred_colorin the VIP table. In the following screenshots, I updated the preferred_color and use the selection function in the page to show that it is successfully updated.

Before:



https://www.students.cs.ubc.ca/~rjin02/superAdmin.php

You can access two attributes from any table you want

attribute1 | attribute2 | table name | field1 | var1 | confirm

Input two attribute you want to select, the name of the table, and constraint of field1 = var1.

Change VIP

You can update the vip level the preferred color

3040001 | preferred_color | 'blue' | confirm

Input two attribute you want to select, the name of the table, and constraint of field1 = var1.

Go To Admin

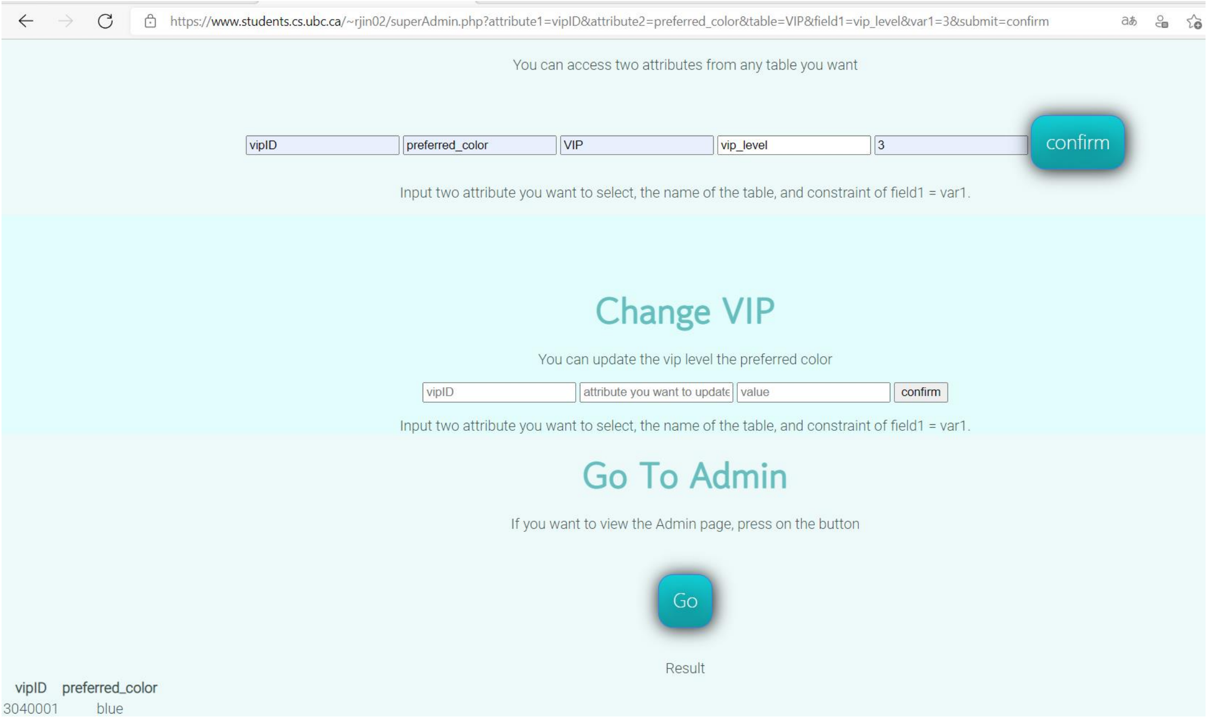
If you want to view the Admin page, press on the button

Go

Result

```
vipID   preferred_color
040001        red
```

After:



https://www.students.cs.ubc.ca/~rjin02/superAdmin.php?attribute1=vipID&attribute2=preferred_color&table=VIP&field1=vip_level&var1=3&submit=confirm

You can access two attributes from any table you want

vipID | preferred_color | VIP | vip_level | 3

Input two attribute you want to select, the name of the table, and constraint of field1 = var1.

Change VIP

You can update the vip level the preferred color

vipID | attribute you want to update | value

Input two attribute you want to select, the name of the table, and constraint of field1 = var1.

Go To Admin

If you want to view the Admin page, press on the button

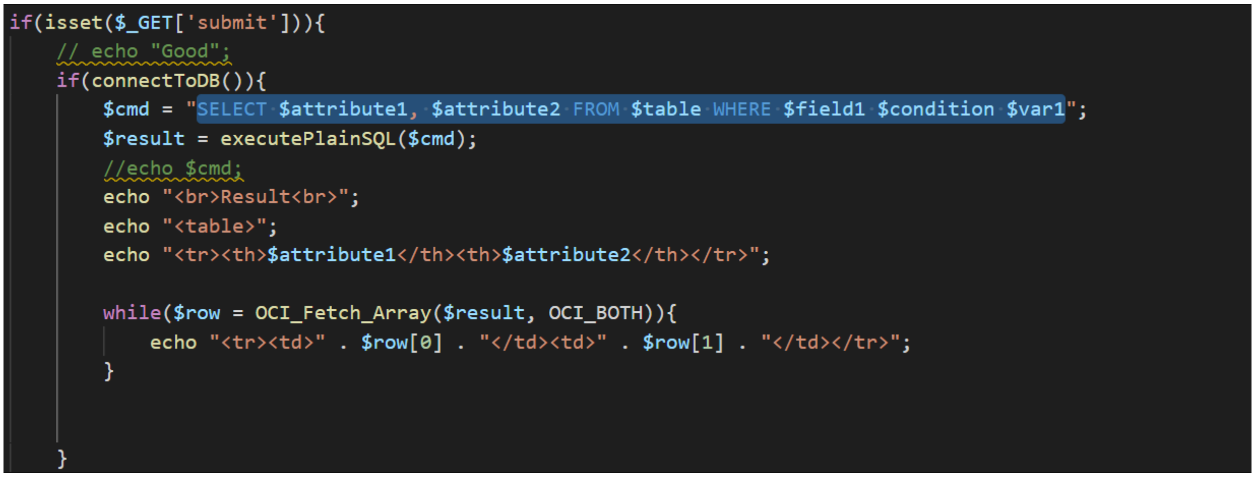
Result

```
vipID    preferred_color
3040001        blue
```

Selection:

File: superAdmin.php

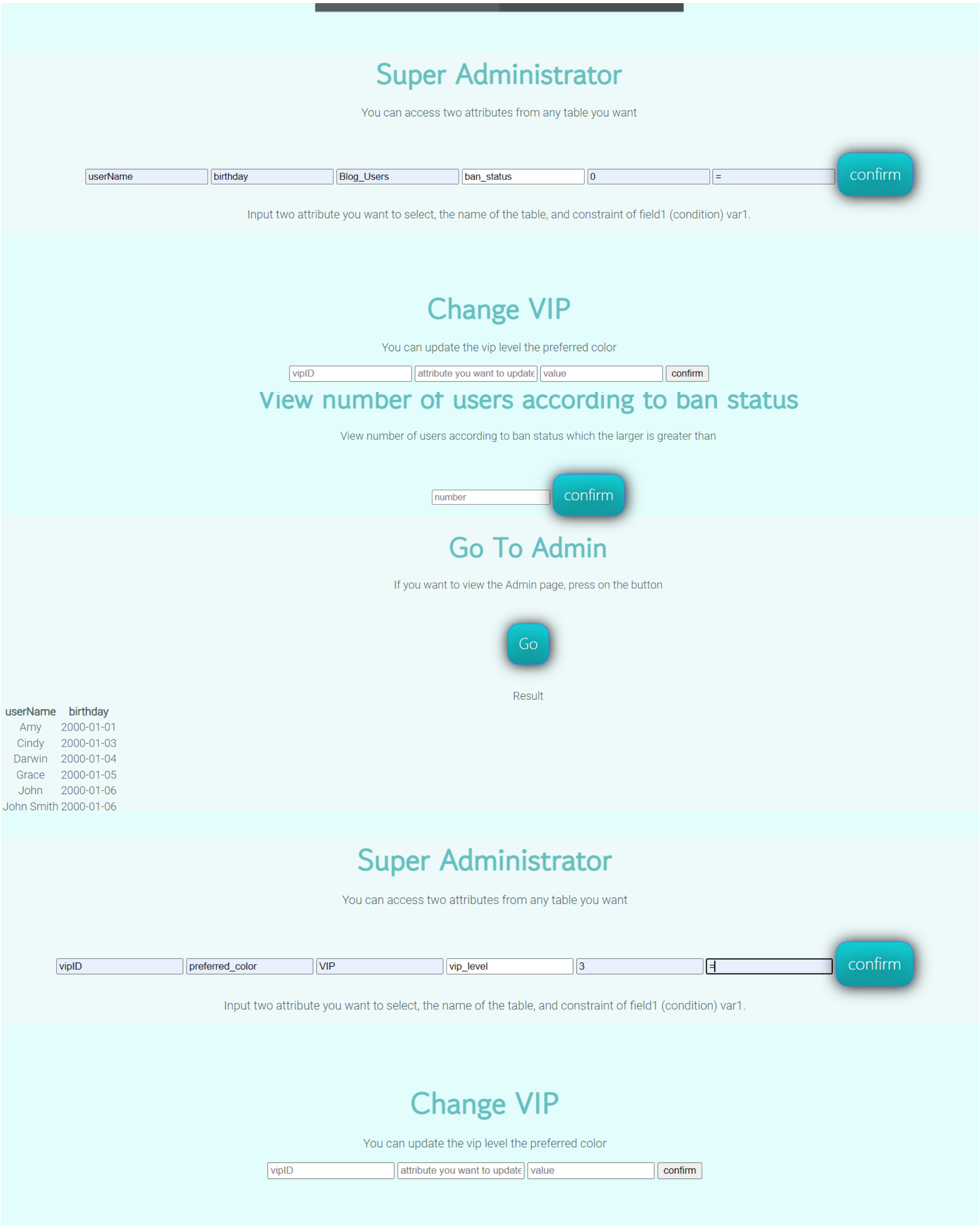
Code:



```php
if(isset($_GET['submit'])){
    // echo "Good";
    if(connectToDB()){
        $cmd = "SELECT $attribute1, $attribute2 FROM $table WHERE $field1 $condition $var1";
        $result = executePlainSQL($cmd);
        //echo $cmd;
        echo "<br>Result<br>";
        echo "<table>";
        echo "<tr><th>$attribute1</th><th>$attribute2</th></tr>";

        while($row = OCI_Fetch_Array($result, OCI_BOTH)){
            echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td></tr>";
        }


    }
```

ScreenShots:

In the following screenshots, we showed that we can both select the vip table and also the user table. The selection conditions are the vip_level and ban_status for this example.



Super Administrator

You can access two attributes from any table you want

userName | birthday | Blog_Users | ban_status | 0 | =

Input two attribute you want to select, the name of the table, and constraint of field1 (condition) var1.

Change VIP

You can update the vip level the preferred color

View number of users according to ban status

View number of users according to ban status which the larger is greater than

Go To Admin

If you want to view the Admin page, press on the button

Result

userName	birthday
Amy	2000-01-01
Cindy	2000-01-03
Darwin	2000-01-04
Grace	2000-01-05
John	2000-01-06
John Smith	2000-01-06

Super Administrator

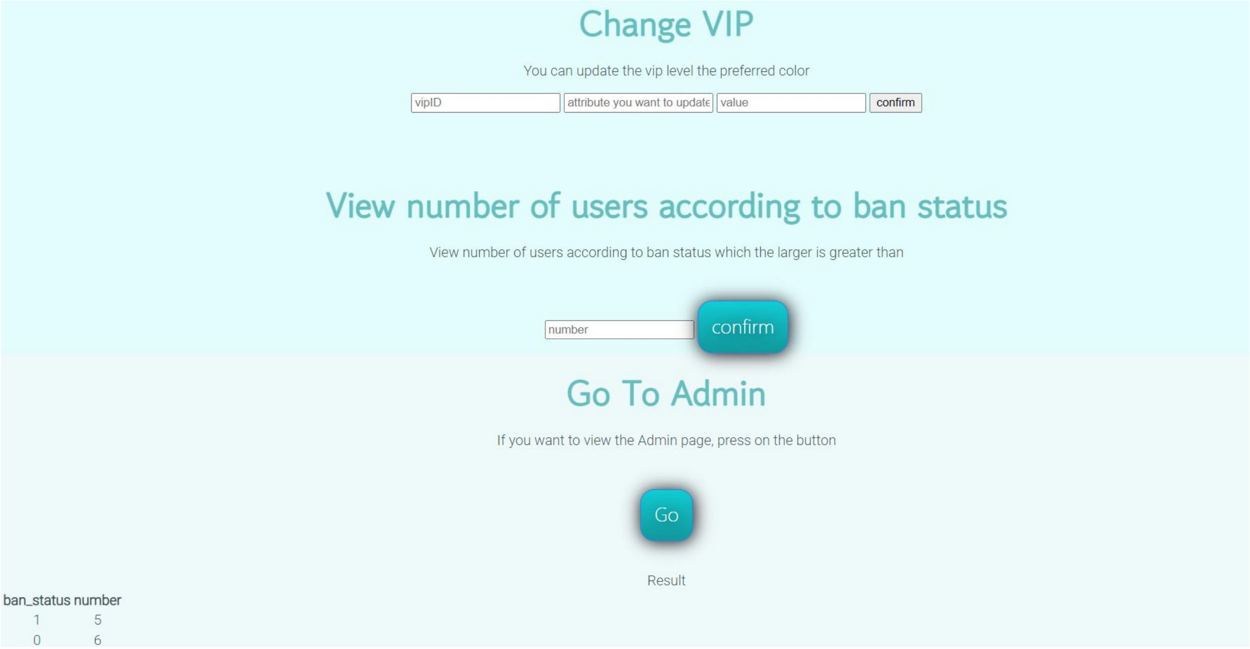
You can access two attributes from any table you want

vipID | preferred_color | VIP | vip_level | 3 | =

Input two attribute you want to select, the name of the table, and constraint of field1 (condition) var1.

Change VIP

You can update the vip level the preferred color



Change VIP

You can update the vip level the preferred color

View number of users according to ban status

View number of users according to ban status which the larger is greater than

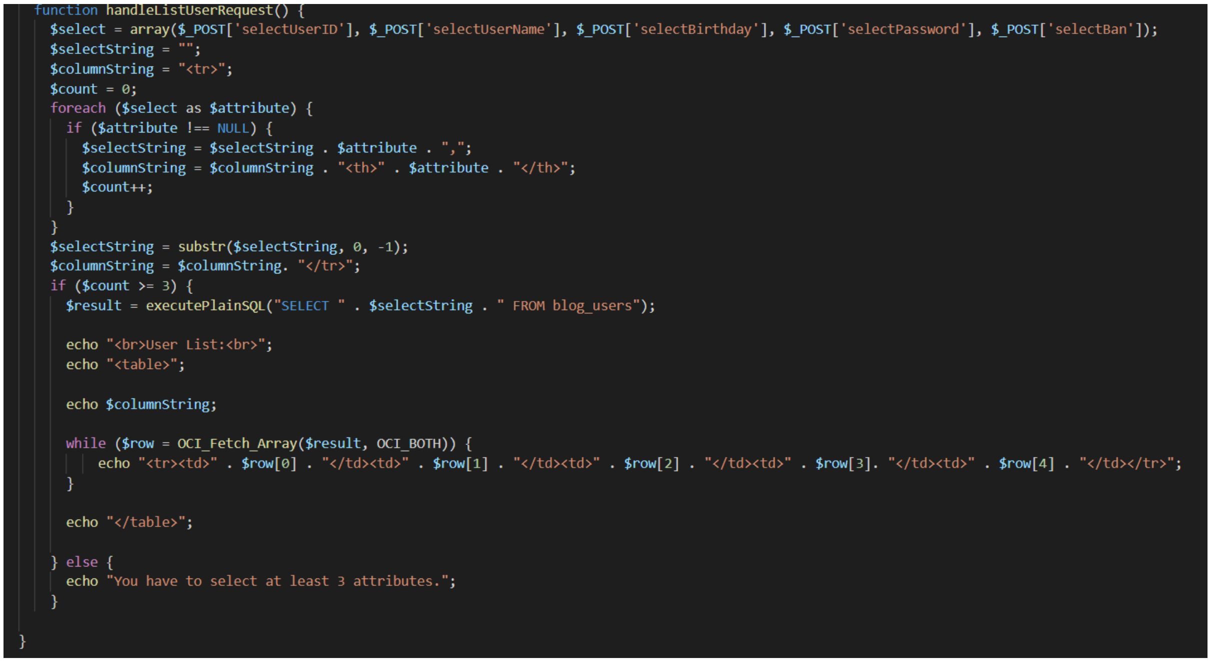
Go To Admin

If you want to view the Admin page, press on the button

Result

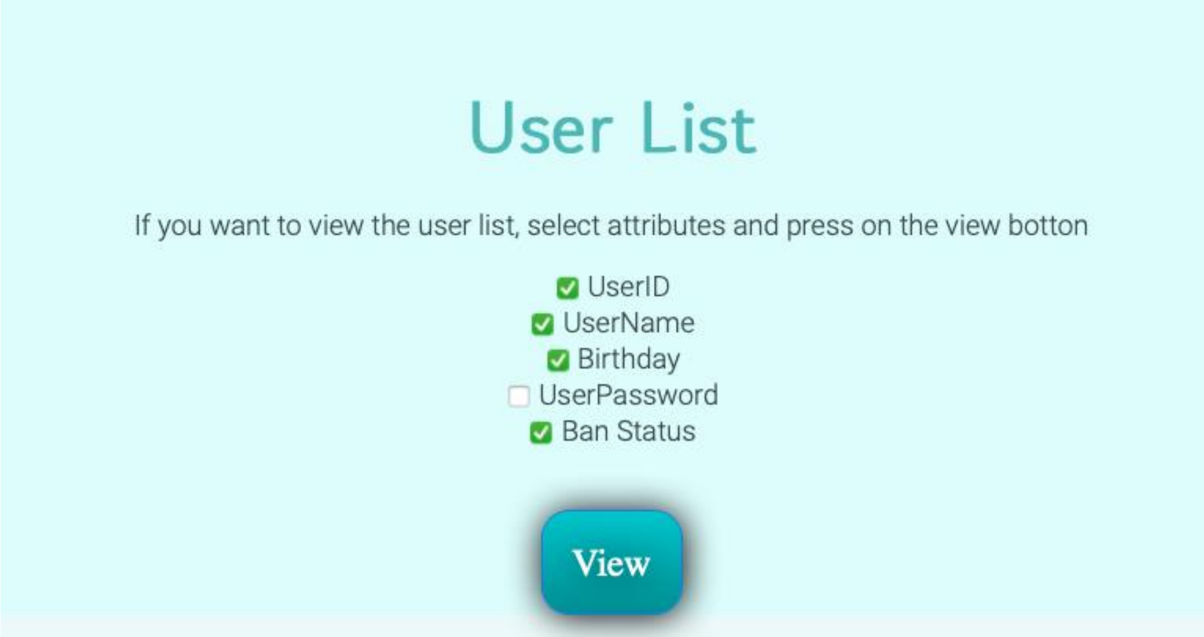
ban_status	number
1	5
0	6

Projection:
File: admin.php
Code:



```
function handleListUserRequest() {
  $select = array($_POST['selectUserID'], $_POST['selectUserName'], $_POST['selectBirthday'], $_POST['selectPassword'], $_POST['selectBan']);
  $selectString = "";
  $columnString = "<tr>";
  $count = 0;
  foreach ($select as $attribute) {
    if ($attribute !== NULL) {
      $selectString = $selectString . $attribute . ",";
      $columnString = $columnString . "<th>" . $attribute . "</th>";
      $count++;
    }
  }
  $selectString = substr($selectString, 0, -1);
  $columnString = $columnString. "</tr>";
  if ($count >= 3) {
    $result = executePlainSQL("SELECT " . $selectString . " FROM blog_users");

    echo "<br>User List:<br>";
    echo "<table>";

    echo $columnString;

    while ($row = OCI_Fetch_Array($result, OCI_BOTH)) {
      echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td><td>" . $row[2] . "</td><td>" . $row[3]. "</td><td>" . $row[4] . "</td></tr>";
    }

    echo "</table>";

  } else {
    echo "You have to select at least 3 attributes.";
  }

}
```

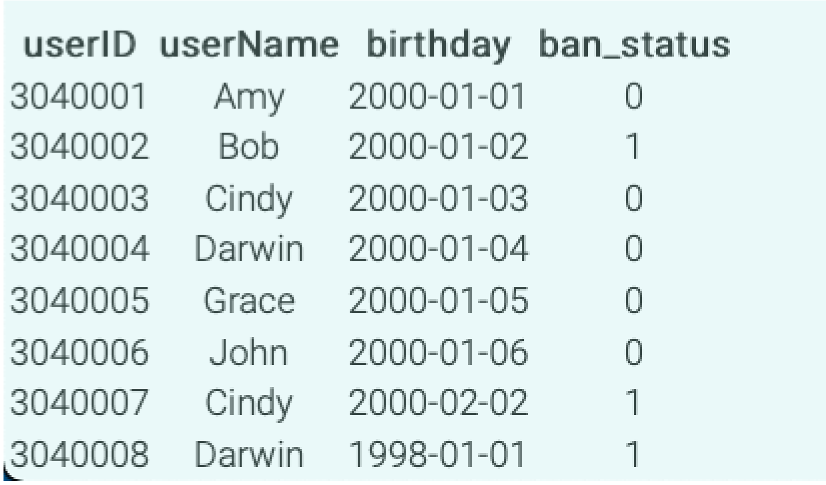
ScreenShots:



User List

If you want to view the user list, select attributes and press on the view botton

☑ UserID
☑ UserName
☑ Birthday
☐ UserPassword
☑ Ban Status

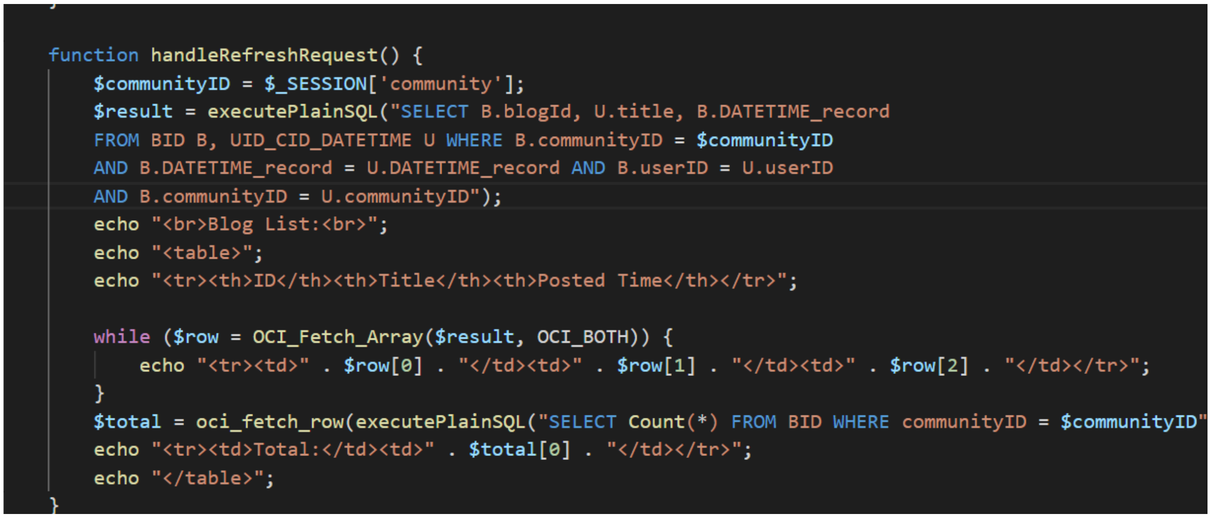


userID	userName	birthday	ban_status
3040001	Amy	2000-01-01	0
3040002	Bob	2000-01-02	1
3040003	Cindy	2000-01-03	0
3040004	Darwin	2000-01-04	0
3040005	Grace	2000-01-05	0
3040006	John	2000-01-06	0
3040007	Cindy	2000-02-02	1
3040008	Darwin	1998-01-01	1

Join:

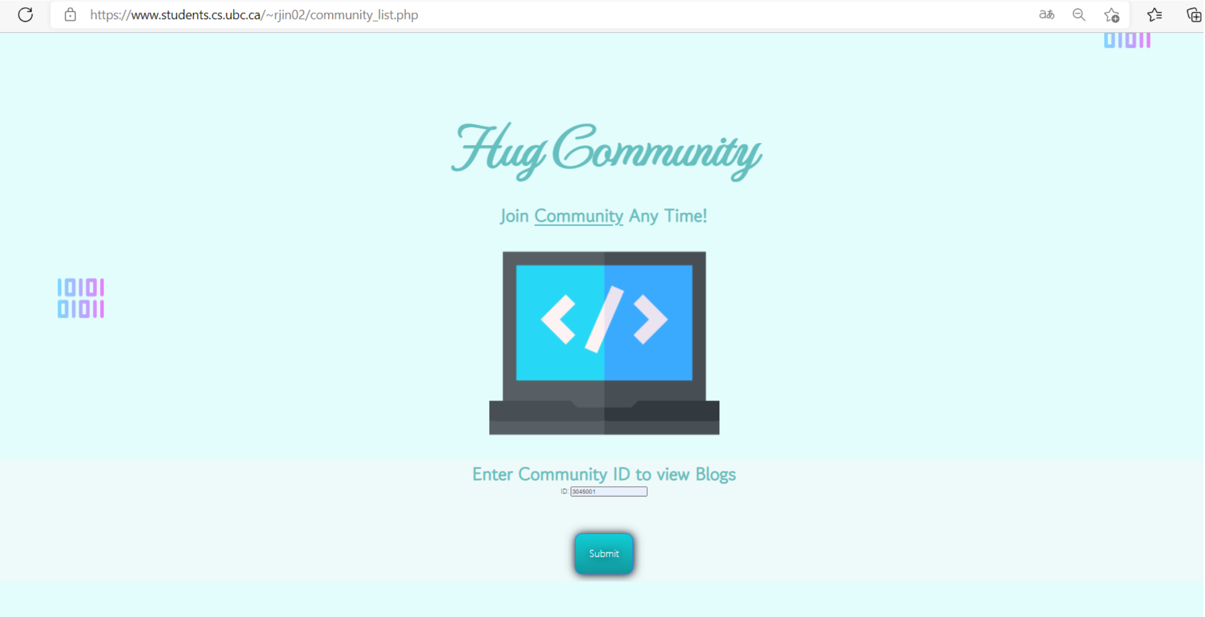
File: blog_list.php

Code:



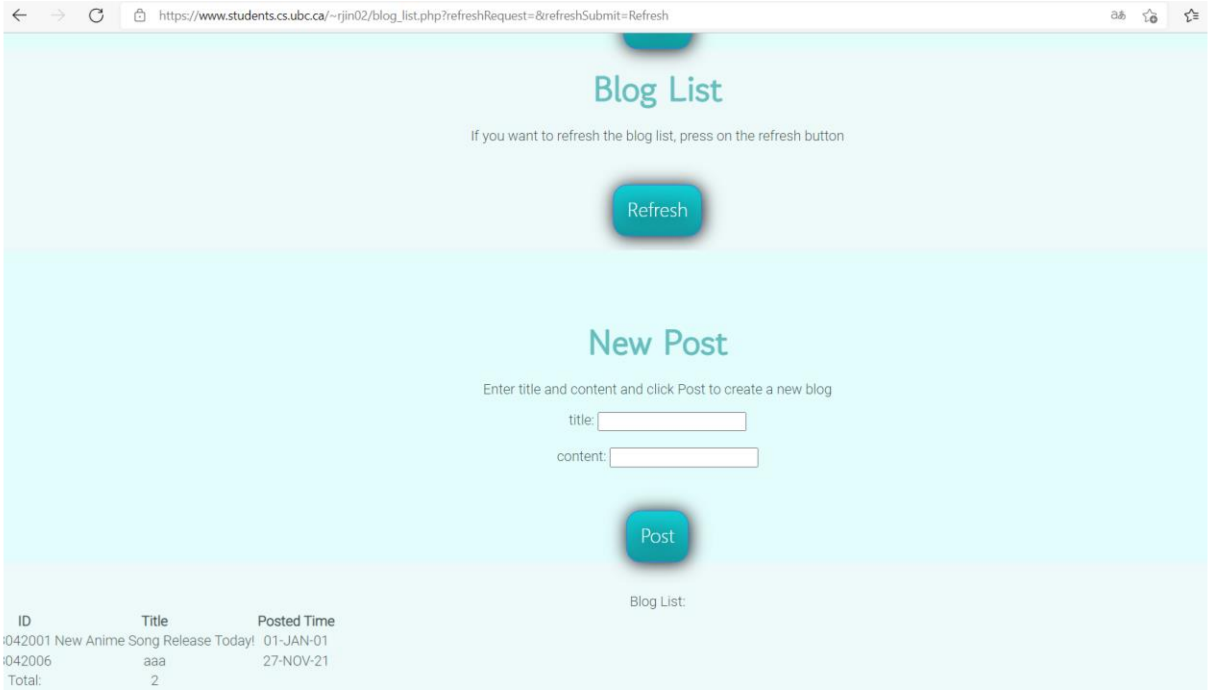
```
    }

    function handleRefreshRequest() {
        $communityID = $_SESSION['community'];
        $result = executePlainSQL("SELECT B.blogId, U.title, B.DATETIME_record
        FROM BID B, UID_CID_DATETIME U WHERE B.communityID = $communityID
        AND B.DATETIME_record = U.DATETIME_record AND B.userID = U.userID
        AND B.communityID = U.communityID");
        echo "<br>Blog List:<br>";
        echo "<table>";
        echo "<tr><th>ID</th><th>Title</th><th>Posted Time</th></tr>";

        while ($row = OCI_Fetch_Array($result, OCI_BOTH)) {
            echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td><td>" . $row[2] . "</td></tr>";
        }
        $total = oci_fetch_row(executePlainSQL("SELECT Count(*) FROM BID WHERE communityID = $communityID"
        echo "<tr><td>Total:</td><td>" . $total[0] . "</td></tr>";
        echo "</table>";
    }
```

ScreenShots:



https://www.students.cs.ubc.ca/~rjin02/community_list.php
Hug Community
Join Community Any Time!
Enter Community ID to view Blogs
Submit

ID: 3045001



https://www.students.cs.ubc.ca/~rjin02/blog_list.php?refreshRequest=&refreshSubmit=Refresh

Blog List

If you want to refresh the blog list, press on the refresh button

New Post

Enter title and content and click Post to create a new blog

title:

content:

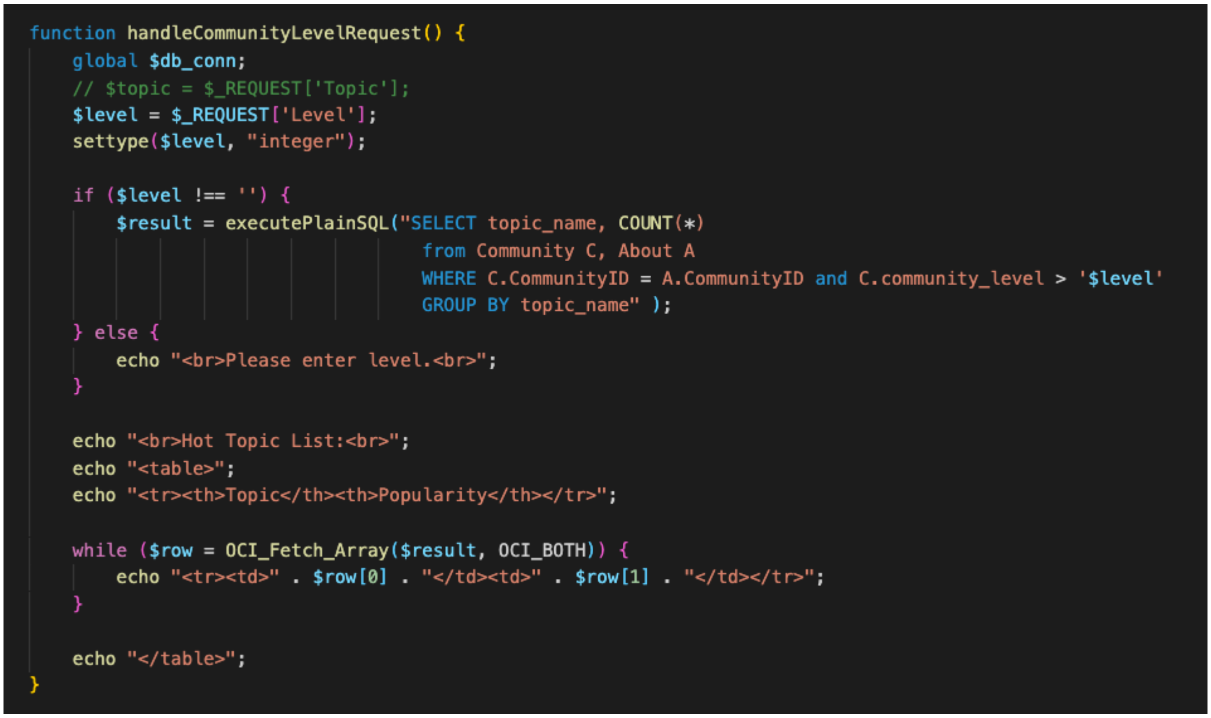
Blog List:

ID	Title	Posted Time
042001	New Anime Song Release Today!	01-JAN-01
042006	aaa	27-NOV-21
Total:	2	

Group By:

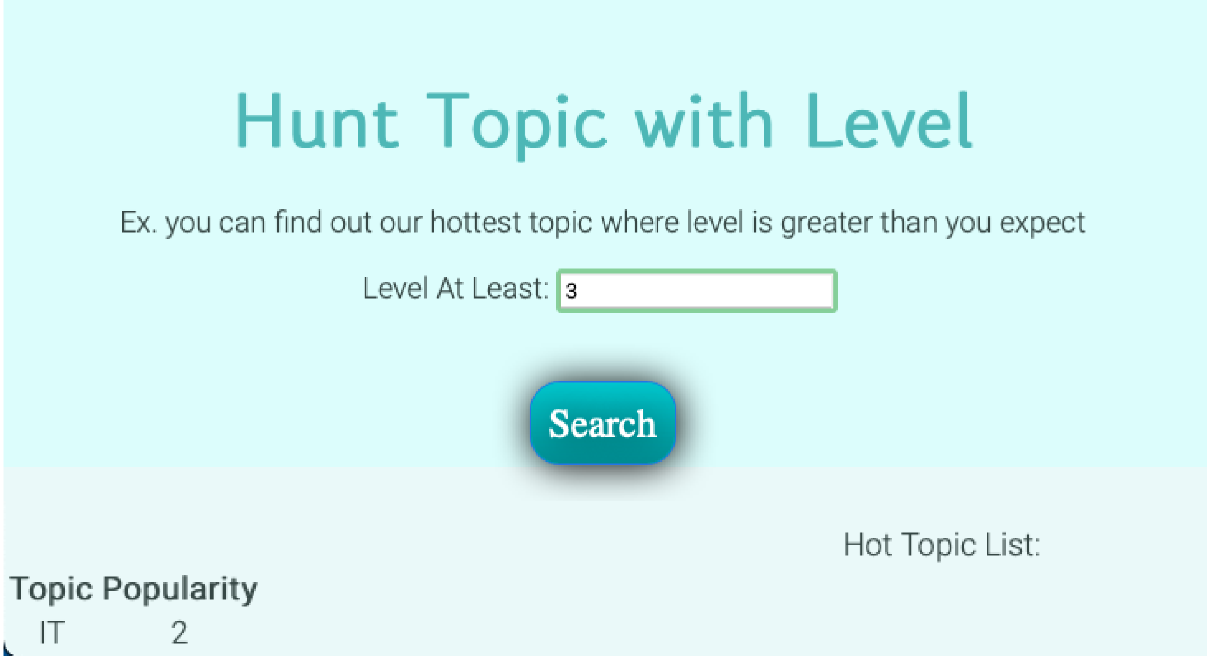
File: topic_list

Code:



```
function handleCommunityLevelRequest() {
    global $db_conn;
    // $topic = $_REQUEST['Topic'];
    $level = $_REQUEST['Level'];
    settype($level, "integer");

    if ($level !== '') {
        $result = executePlainSQL("SELECT topic_name, COUNT(*)
                                    from Community C, About A
                                    WHERE C.CommunityID = A.CommunityID and C.community_level > '$level'
                                    GROUP BY topic_name" );
    } else {
        echo "<br>Please enter level.<br>";
    }

    echo "<br>Hot Topic List:<br>";
    echo "<table>";
    echo "<tr><th>Topic</th><th>Popularity</th></tr>";

    while ($row = OCI_Fetch_Array($result, OCI_BOTH)) {
        echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td></tr>";
    }

    echo "</table>";
}
```

ScreenShots:



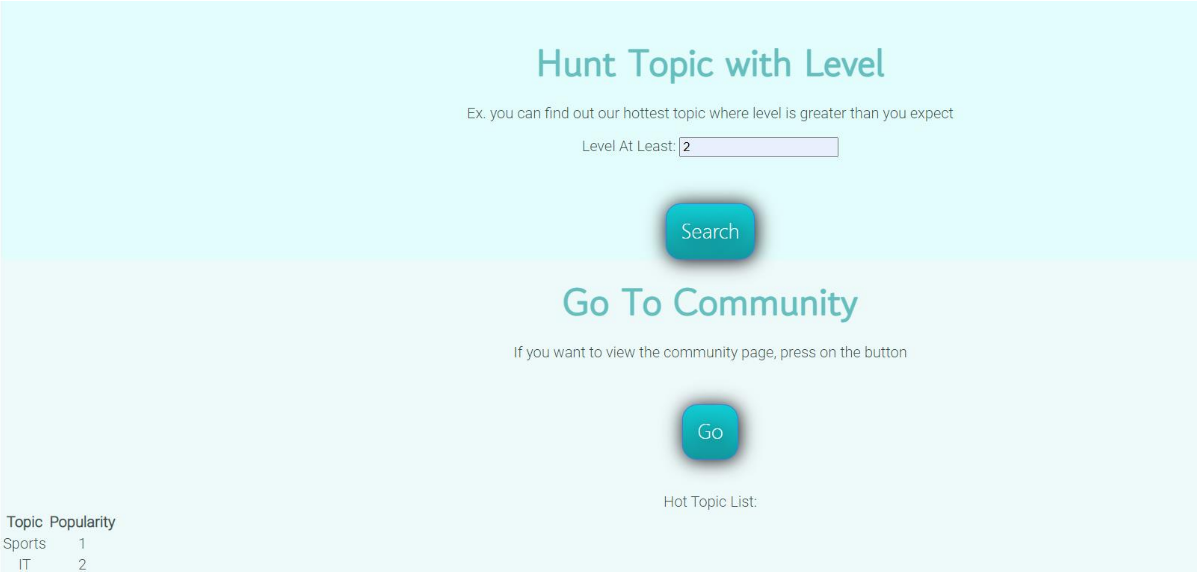
Hunt Topic with Level

Ex. you can find out our hottest topic where level is greater than you expect

Level At Least: 3

Hot Topic List:

Topic	Popularity
IT	2



Hunt Topic with Level

Ex. you can find out our hottest topic where level is greater than you expect

Level At Least: 2

Go To Community

If you want to view the community page, press on the button

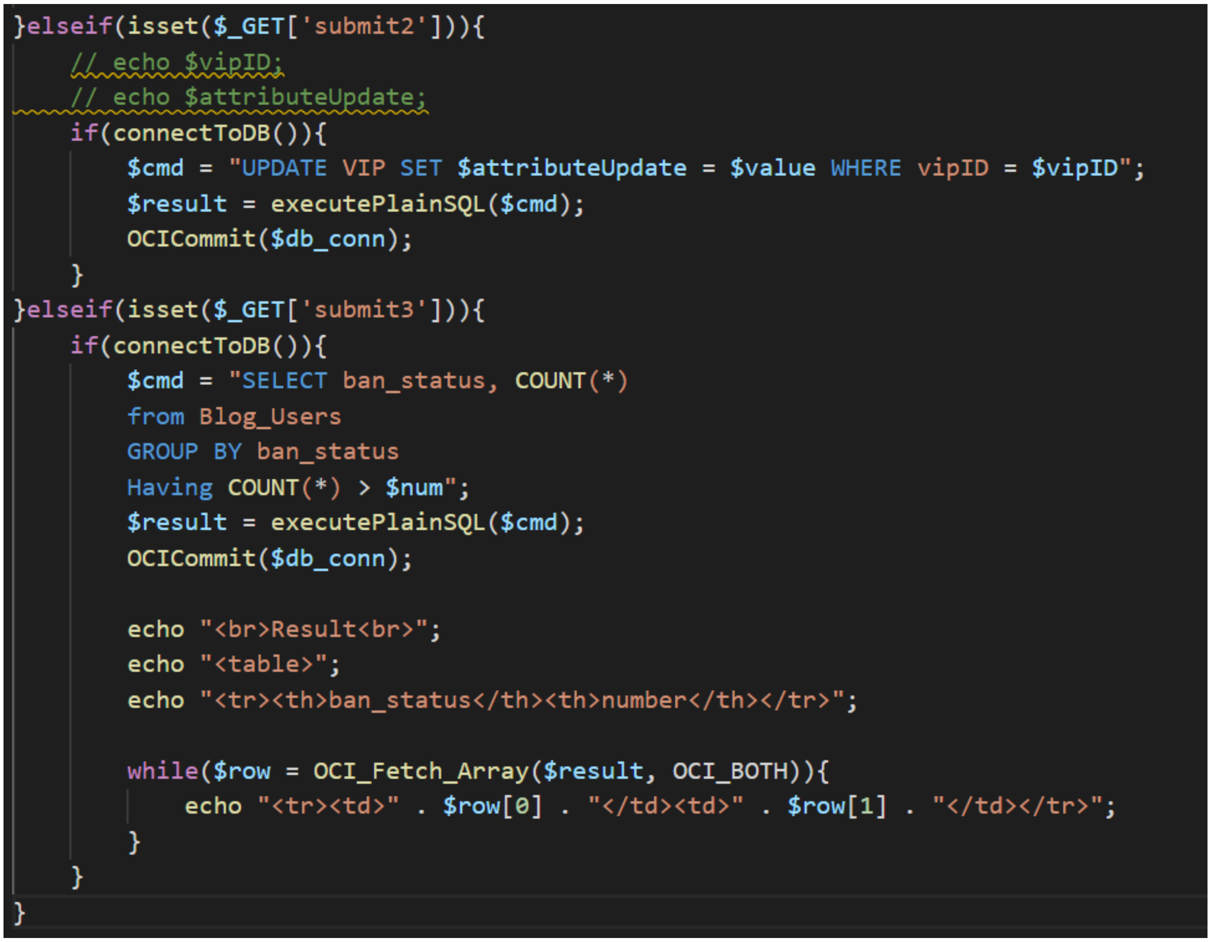
Hot Topic List:

Topic	Popularity
Sports	1
IT	2

Aggregation with Having:

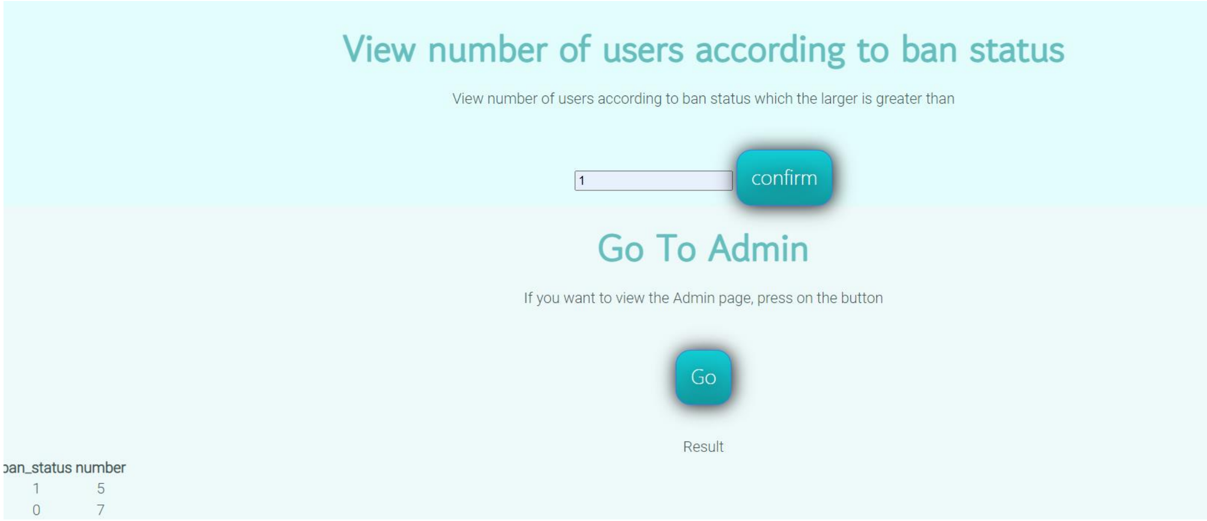
File: superAdmin.php

Code:



```php
}elseif(isset($_GET['submit2'])){
    // echo $vipID;
    // echo $attributeUpdate;
    if(connectToDB()){
        $cmd = "UPDATE VIP SET $attributeUpdate = $value WHERE vipID = $vipID";
        $result = executePlainSQL($cmd);
        OCICommit($db_conn);
    }
}elseif(isset($_GET['submit3'])){
    if(connectToDB()){
        $cmd = "SELECT ban_status, COUNT(*)
        from Blog_Users
        GROUP BY ban_status
        Having COUNT(*) > $num";
        $result = executePlainSQL($cmd);
        OCICommit($db_conn);

        echo "<br>Result<br>";
        echo "<table>";
        echo "<tr><th>ban_status</th><th>number</th></tr>";

        while($row = OCI_Fetch_Array($result, OCI_BOTH)){
            echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td></tr>";
        }
    }
}
```

ScreenShots:



View number of users according to ban status

View number of users according to ban status which the larger is greater than

Go To Admin

If you want to view the Admin page, press on the button

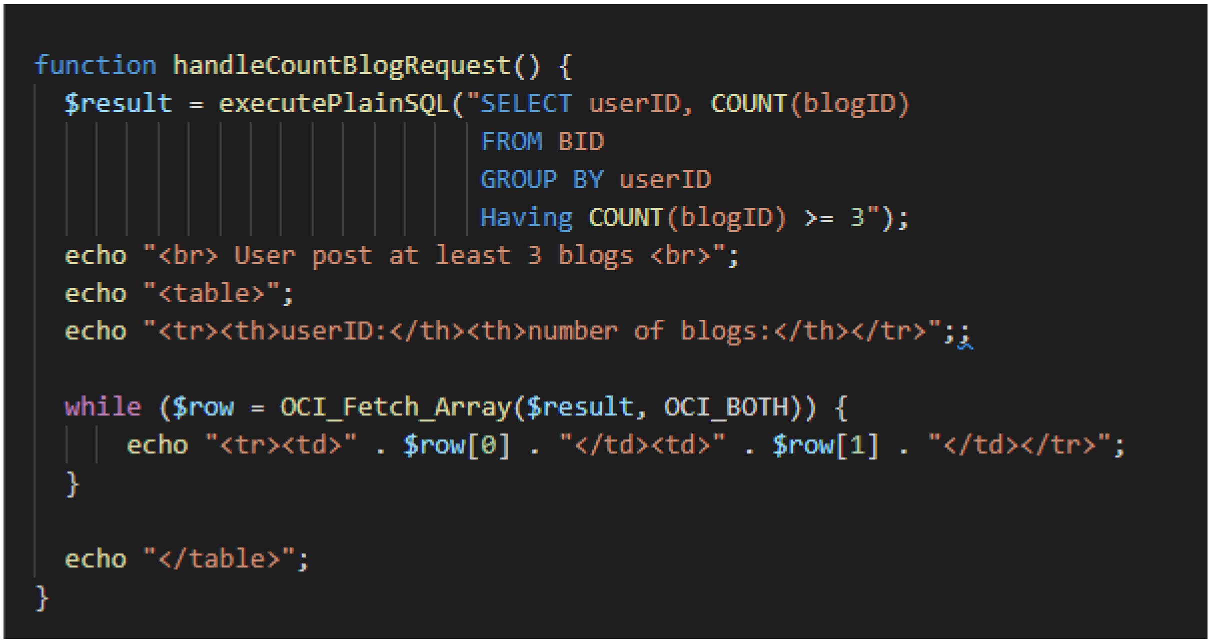
Result

ban_status	number
1	5
0	7

Aggregation with Having2:

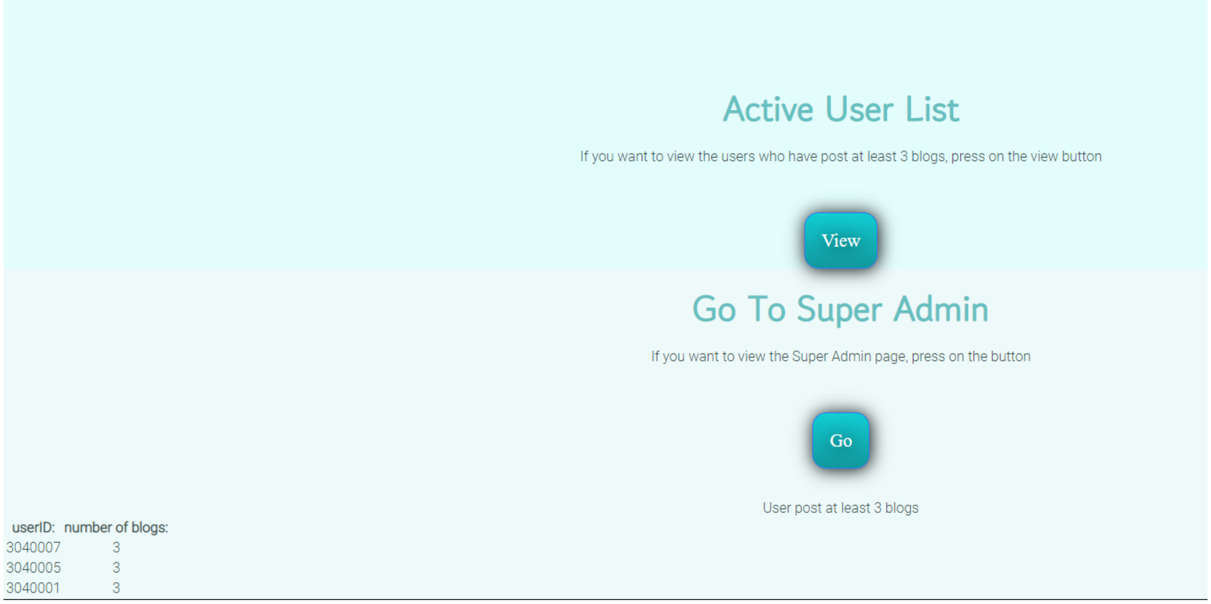
File: admin.php

Code:



```
function handleCountBlogRequest() {
    $result = executePlainSQL("SELECT userID, COUNT(blogID)
                               FROM BID
                               GROUP BY userID
                               Having COUNT(blogID) >= 3");
    echo "<br> User post at least 3 blogs <br>";
    echo "<table>";
    echo "<tr><th>userID:</th><th>number of blogs:</th></tr>";;

    while ($row = OCI_Fetch_Array($result, OCI_BOTH)) {
        echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td></tr>";
    }

    echo "</table>";
}
```

ScreenShots:



Active User List

If you want to view the users who have post at least 3 blogs, press on the view button

Go To Super Admin

If you want to view the Super Admin page, press on the button

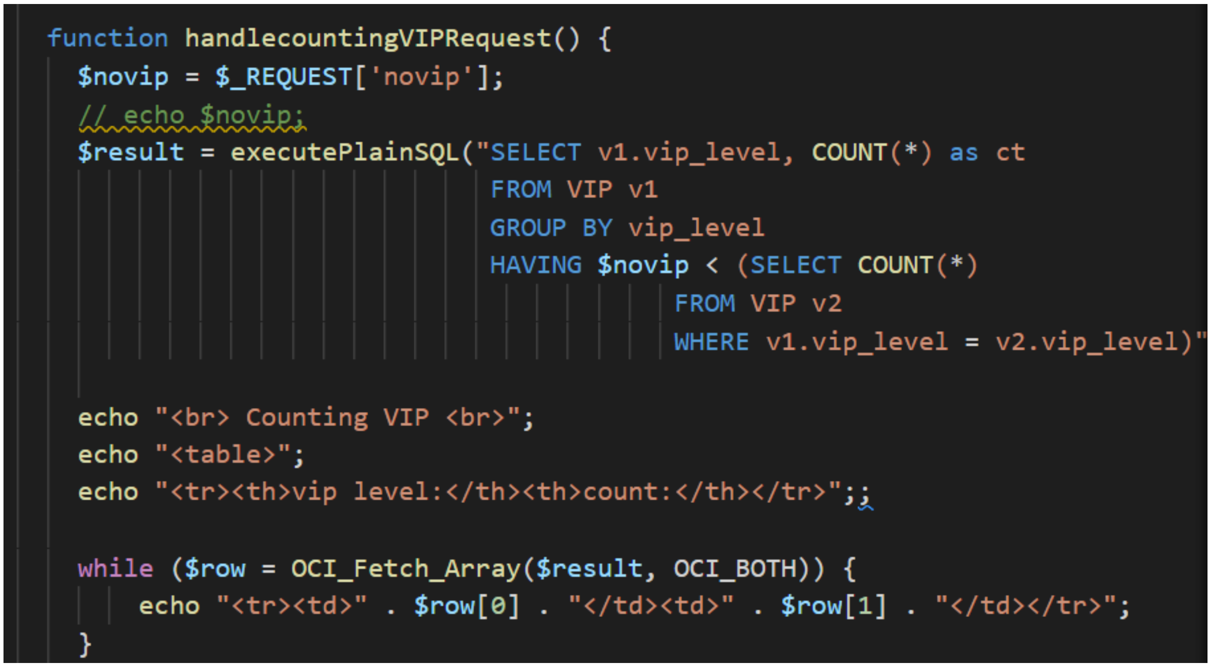
User post at least 3 blogs

```
 userID:  number of blogs:
3040007         3
3040005         3
3040001         3
```

Nested Aggregation with Group By:

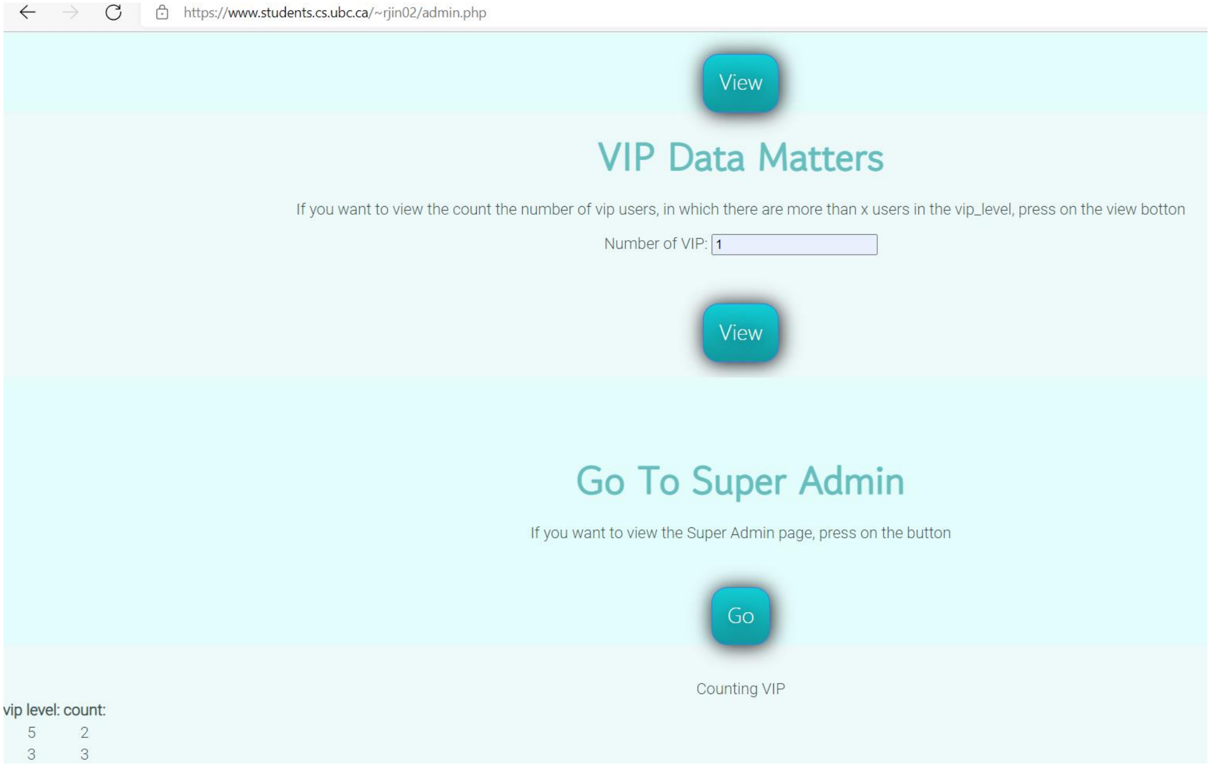
File: admin.php

Code:



```
function handlecountingVIPRequest() {
    $novip = $_REQUEST['novip'];
    // echo $novip;
    $result = executePlainSQL("SELECT v1.vip_level, COUNT(*) as ct
                               FROM VIP v1
                               GROUP BY vip_level
                               HAVING $novip < (SELECT COUNT(*)
                                               FROM VIP v2
                                               WHERE v1.vip_level = v2.vip_level)"

    echo "<br> Counting VIP <br>";
    echo "<table>";
    echo "<tr><th>vip level:</th><th>count:</th></tr>";;

    while ($row = OCI_Fetch_Array($result, OCI_BOTH)) {
        echo "<tr><td>" . $row[0] . "</td><td>" . $row[1] . "</td></tr>";
    }
```

ScreenShots:



https://www.students.cs.ubc.ca/~rjin02/admin.php

VIP Data Matters

If you want to view the count the number of vip users, in which there are more than x users in the vip_level, press on the view botton

Number of VIP: 1

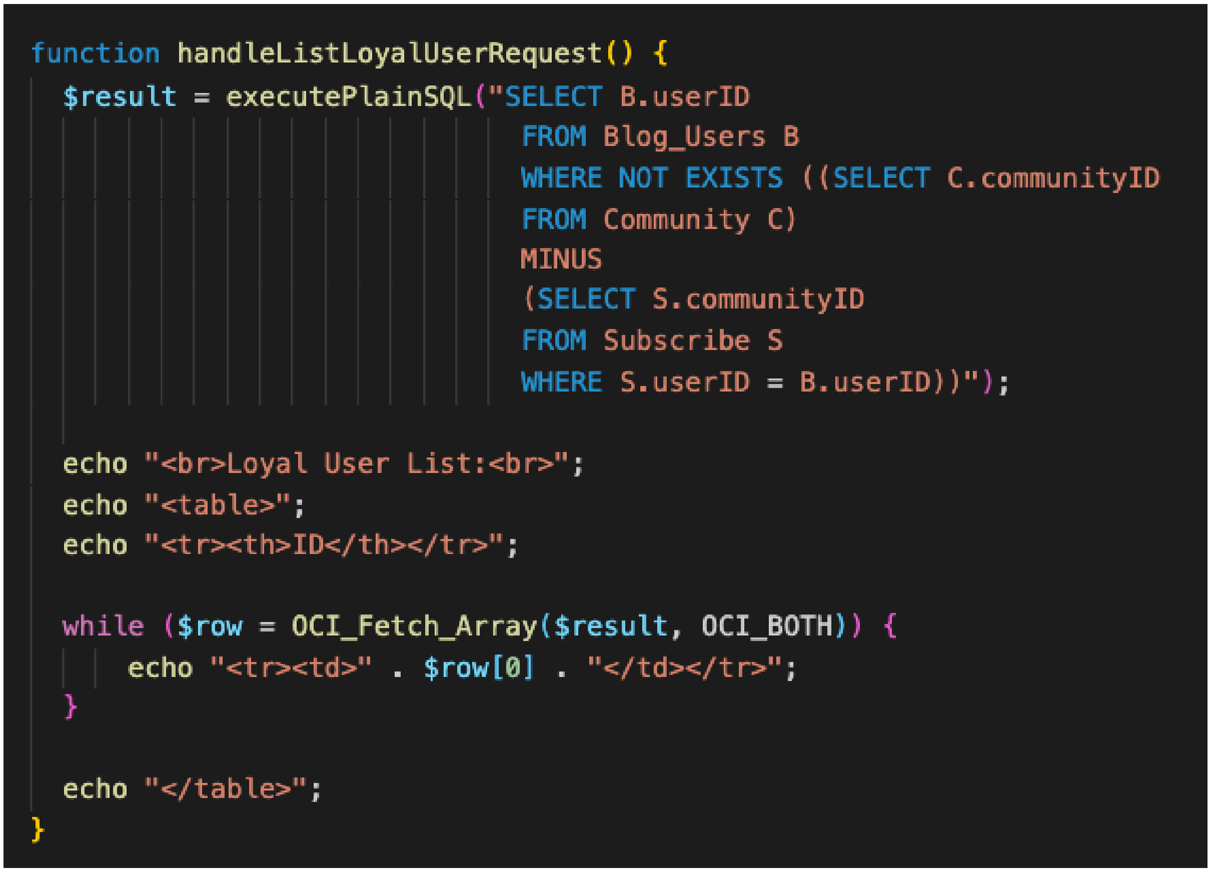
Go To Super Admin

If you want to view the Super Admin page, press on the button

Counting VIP

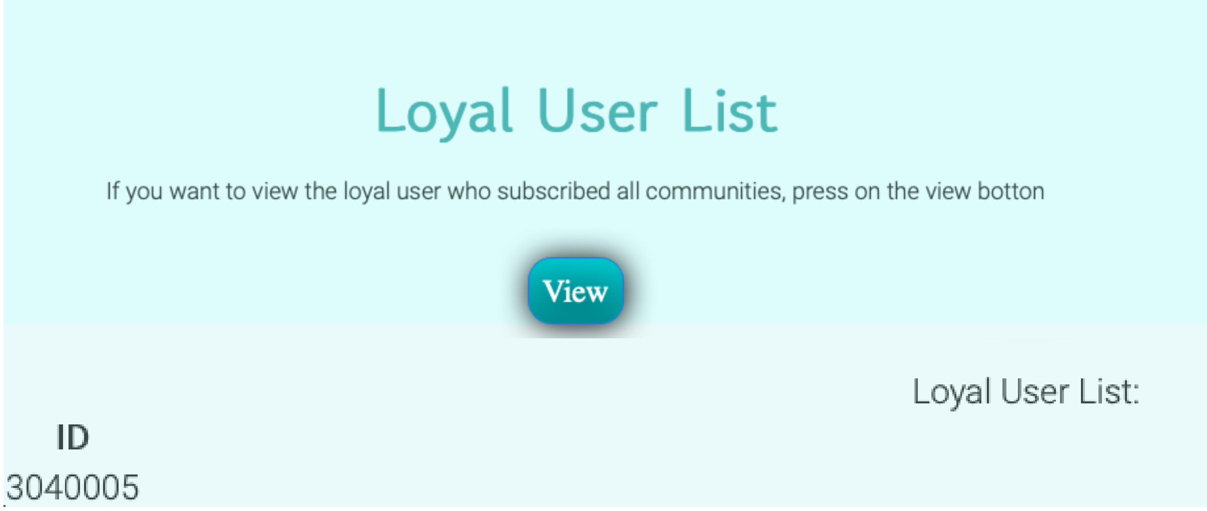
```
vip level: count:
   5        2
   3        3
```

Division:
File: admin.php
Code:



```php
function handleListLoyalUserRequest() {
    $result = executePlainSQL("SELECT B.userID
                               FROM Blog_Users B
                               WHERE NOT EXISTS ((SELECT C.communityID
                               FROM Community C)
                               MINUS
                               (SELECT S.communityID
                               FROM Subscribe S
                               WHERE S.userID = B.userID))");

    echo "<br>Loyal User List:<br>";
    echo "<table>";
    echo "<tr><th>ID</th></tr>";

    while ($row = OCI_Fetch_Array($result, OCI_BOTH)) {
        echo "<tr><td>" . $row[0] . "</td></tr>";
    }

    echo "</table>";
}
```

ScreenShots:



Loyal User List

If you want to view the loyal user who subscribed all communities, press on the view botton

Loyal User List:

ID
3040005

The listed SQL queries used (we have also included this in the following screenshots):

Insertion:

```
INSERT INTO Comment_Create_Follows      VALUES($order, $blogID, $userID, '$content')
```

Deletion:

DELETE FROM BID WHERE blogId = $blogID (this will cause the on delete cascade).

Update:

```
UPDATE VIP SET $attributeUpdate = $value WHERE vipID = $vipID
```

Selection:

```
SELECT $attribute1, $attribute2 FROM $table WHERE $field1 $condition $var1
```

Projection:

```
"SELECT " . $selectString . " FROM blog_users
```

Join:

```
"SELECT B.blogId, U.title, B.DATETIME_record
 FROM BID B, UID_CID_DATETIME U WHERE B.communityID = $communityID
 AND B.DATETIME_record = U.DATETIME_record AND B.userID = U.userID
 AND B.communityID = U.communityID"
```

Aggregation with Group By:

```
SELECT topic_name, COUNT(*)
from Community C, About A
WHERE C.CommunityID = A.CommunityID and C.community_level > '$level'
GROUP BY topic_name
```

Aggregation with Having:

```
SELECT userID, COUNT(blogID)
FROM BID
GROUP BY userID
Having COUNT(blogID) >= 3
```

```
SELECT ban_status, COUNT(*)
from Blog_Users
GROUP BY ban_status
Having COUNT(*) > $num
```

Nested Aggregation with Group By:

```
SELECT v1.vip_level, COUNT(*) as ct
FROM VIP v1
```

```
GROUP BY vip_level
HAVING $novip < (SELECT COUNT(*)
FROM VIP v2
WHERE v1.vip_level = v2.vip_level)
```

Division:

```
SELECT B.userID
FROM Blog_Users B
WHERE NOT EXISTS ((SELECT C.communityID
FROM Community C)
MINUS
(SELECT S.communityID
FROM Subscribe S
WHERE S.userID = B.userID))
```