# PHP -Developing a Social Media Network with Image processing

# Assignment Tasks 01 (Signup and Sign in):

Program for Signup Page – In order to sign up to use the social media site, the user must enter valid credentials, which are validated, and when valid, upon submission, these credentials are added to a Database. Below shows the entire program made for this task.

#### PHP validation of the signup form: (loginPage.php)

```
<link rel="stylesheet" href="home.css"/>
<title></title>
                                          <?php
                                       global $nameErr;
                                     $nameErr = "";
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23
                                      global $passErr;
                                     $passErr = "";
                                      global $fname;
                                      global SemailErr;
                                      $emailErr = "";
                                       global $name, $pass, $email, $fname;
                                          if ($_SERVER["REQUEST_METHOD"] == "POST") {
                                                            if (empty($ POST["name"])) {
                                                                         $nameErr = "User Name is Required";
                                                           } else{
                                                                  $name = test_input($ POST["name"]);
                                                                        $nameErr = "Only letters and numbers allowed";
   if(empty($ POST["pass"])){
    $priceErr = "Price is Required";
                                                           spitcest = file is required;
else (
    Spass = test_input($ FOST["pass"]);
    if(!preg_match("/^[a-zh-z-0-9]*$/",
                                                                  if(!preg match("/^[a-zA-Z-0-9]*$/", $ POST["pass"])) {
    $nameErr = "Only letters and numbers allowed";
                                                           if(empty($ POST["fname"])){
                                                                      $fnameErr = "User Name is Required";
                                                                  $fname = test input($ POST["fname"]);
                                                                       $fnameErr = "Only letters and whitespaces allowed";
                                                         if (empty($ POST["email"])) {
    $emailErr = "";
                                                         } else (
   $\text{semail} = \test_input(\{\frac{\text{POST}}{\text{POST}}\{\text{"email"}\}\);
   $\text{SUMPR_VALIDATION_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_TIMES_TO_T
                                                                      if(!filter_var($email, FILTER_VALIDATE_EMAIL)) {
    $emailErr = "Invalid Format";
function test input ($\frac{1}{2}\text{data}) {
                                                          $data = trim($data);
                                                           $data = stripslashes($data);
                                                           $data = htmlspecialchars($data);
                                                           return $data;
```

**HTML form:** 

## PHP inserting validated form info into database (with password hashing)

## Top navigation element – Same on every page:

#### Database (From phpMyAdmin)

•	ID		UserName	Password	Name	Email
1		1	Lorena02	a581822c19a39b3917ee9c5b4351669442c65cfa958907e525	Lorena Spallino	lorena1@gmail.com
		2	Sofia04	86846e84f9bfb2053a4823193843d22a0be24a75d304d6f8a2	Sofia M Spallino	sofia@yahoo.com

### **Complete Output:**

The following screenshots display the output of the above program and displays how the user would use this aspect of the application. CSS was used to make the output look interesting.

#### Page to sign up:



After signing up with valid credentials:



When the user clicks submit, inputs are entered into the database, and the success message is shown.

Upon clicking the Login Here link, user is directed to the next page, in order to log into the application.

Thank you for signing up, continue to login page.

<u>Login Here</u>

**Login Page Program – (signinPage.php).** The below screenshots display the entire program for the logging in page, which users would use to log into the application with their respective accounts.

Form validation program – The form users must enter to log in, is first validated:

#### **HTML Form:**

PHP checking valid login info from database: - if login is correct, sessions and cookies are started with user's credentials, and user is directed to the site page, if not there is an error message telling user to try again.

```
84
                  <?php
   86
if (isset($ POST["submit"])) {
                 //echo" <h2> Inserting into DataBase:</h2>";
                 $name = $ POST["name"];
$pass = $ POST["pass"];
                 $servername = "localhost:3311";
                  $username = "LorenaS";
                  $password = "Lorenas";
                  $dbname = 'social';
                  $login = 0;
                      $conn = new PDO("mysql:host=$servername; dbname=$dbname", $username, $password);
                      $conn->setAttribute(PDO::ATTR ERRMODE, PDO::ERRMODE EXCEPTION);
  106
107
                      //hashing the PW
  109
110
112
113
114
                      $hashedpassword = hash("sha256", $ POST["pass"]);
                      $sql1 = "SELECT * FROM user WHERE UserName='$name' AND Password='$hashedpassword'";
                      $login = 0;
                      $q1->SetFetchMode(PDO::FETCH_ASSOC);
```

## **Output of login page:**

The below screenshots show the entirety of the outputs of this page. This displays how the user can login if they have already created an account.



Example of invalid username or password (error message shown):

invalid username or password, please try again

Example of valid login info – if user's credentials are in the database, they will be successfully logged in:

Login Successful, Hello Lorena02

Please continue to site page

The link above directs user to home page, which looks like the screenshot below:



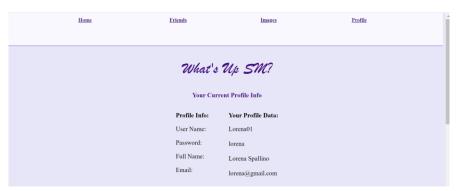
# Assignment Tasks 02 (Edit User Profile data):

After logging in with username and password, user data is stored in Session variables and cookies: then the profile.php page programming looks like the following screenshots In order to display the user's data.

Profile.php Displaying user's data from the database, and using sessions and cookies enabled upon login:

```
</header>
<h2 id='nav'>What's Up <u>SM</u>?</h2>
        session_start();
echo "<h3 id='blue'>Your Current Profile Info</h3>";
        <div id='div2'>
31 🖹
              <h3> Your Profile Data: </h3>
32
33
                  <?php
              echo $_SESSION["username"] . "<br>";
34
35
              echo "<br>";
36
              echo $ SESSION["password"]. "<br>";
              echo "<br>";
37
38
              echo $ SESSION["fullname"]. "<br>";
39
              echo "<br>";
              echo $ SESSION["email"]. "<br>";
40
41
              ?>
```

Output of this part of the profile.php page looks like the following screenshot (logged in as a user called Lorena01):



PHP form validation for the forms that allow the user to update their information. (No more required attributes, only data validation to ensure web security)

HTML forms allowing users to update the different elements of their profile:

```
| column | c
```

Program to update the username in the database, if the user fills out the first form:

Program to update the password in the database, if the user fills out the second form:

Program to update the name in the database, if the user fills out the third form:

```
if (imset($_NORT("nubmit3"))) (

SnewPhame = $_NORT("frame");

Servername = "locathouti3311";

Sumername = "lorename";

Sumername = "lorename";

Softmame = "lorename, Sumername, Spansword);

**Softmame = "lorename, Spansword, Spansword);

**Softmame = "lorename, Spansword, Spans
```

Program to update the email in the database, if the user fills out the fourth form:

## Output of the form and how the user can fill it out to update the data:

(I chose to make these separate forms so that the user can choose to update just one element (ie. The password ) or all the elements but submitting all the forms)



Updating every element for this profile and submitting them all:



Success message at the bottom of the form:



Now the edits are reflected in the displayed information at the top of the page, as well as in the database.



# Assignment Tasks 03 (List all the users):

Program of the 'friend.php' page. This programming allows the user to see all other users if they wish:

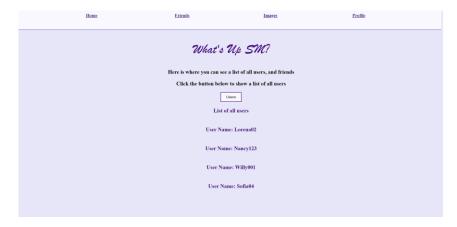
```
chead charact "UTT-8">
chead charact "UTT-8"
charact "UTT-8"
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charact "UTT-8"
charact "UTT-8"
chara
```

The output of the above program, before user choses to see the list of all users:



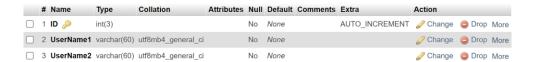
Output (after user clicks the 'user; button): - Only showing the username to protect user's sensitive data (like full name and email)

Displaying a list of all users:



# Assignment Tasks 04 (Send and accept Friend request):

Below shows the friend Table in database with it's appropriate columns.



Below shows the php program in the friend.php page to send a friend request to a specific user. Using database, sessions and cookies.

```
static x = 0;
63
            while($x<100){
64
                $x++;
Â
             if(isset($ POST[strval($x)])){
                       $fid = strval($x);
         echo "<h3 class='error'>Friend Request Sent! </h3><br>";
67
                       $_SESSION["friend2"] = $fid;
68
69
70
72
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             $cookieName = "friend";
75
            $cookieValue = $_SESSION["friend1"];
76
            setcookie($cookieName, $cookieValue, time()+846000, "/");
```

## Program for accepting or denying a friend request:

```
<div id="4" style="float:right;">
if(isset($ POST["friends"])){
               if ($_SESSION["friend2"] == $_SESSION["userid"]) {
             )
if ($_SESSION["friend2"] -- $_SESSION["userid"]) {
   echo "<hl class-'error'> ". $_COOKIE['friend'] . " Has sent you a friend request! You can accept or deny their request </hl>";
              if(isset($ POST["accept"])){
              $u1 = $_COOKIE['friend'];
$u2 = $_SESSION["username"];
              $servername = "localhost:3311";
              $username = "Localine"
$username = "Lorenas";
$password = "Lorenas";
$dbname = 'social';
                try {
    $conn = new FDO("mysqlihost-Smervername; dbname-$dbname", $username, $password);
                    $conn->setAttribute(PDO::ATTR ERRMODE, PDO::ERRMODE EXCEPTION);
                 $conn->exec($sql);
                 echo "<h3>You have accepted $u1 friend reqest. You are now friends!</h3>";
                Sconn = null;
               if(isset($_POST["deny"])){
               SuI - $ COOKIE['friend'];

$uZ = $ SESSION["username"];

cho "<h3 class='error' style='margin-right:5%;margin-left:-25%;'>You have denied $uI's friend regest. You are not friends.</h3>";

}
                    144
                                          if(isset($ POST["flist"])){
                     146
                                          header("Location: /PhTestpProject1/friend r.php");
                     147
                                                    exit();
                     148
                     149
                     150
                                              ?>
                                          </div>
                                          </div>
                     153
                                    </body>
```

Output of requesting a friend:

(Currently logged in under username Sofia04):

Viewing the users:



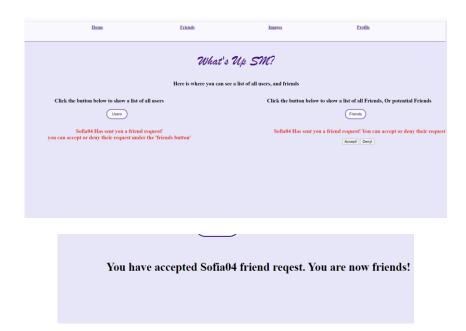
Clicking on send friend request button for user Lorena02:



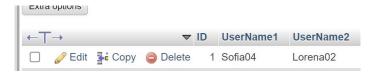
Now logged in as Lorena02:



Accepting the friend request:



## **Checking the Database:**



## **OR** - Denying the friend request:



# Assignment Tasks 05 (Display list of friends):

On the friend.php page, user can choose to see a list of all friends, if so, their friends will be displayed, from the friends database this shows all their current friends.

## **Program:**

```
| Company | Comp
```

#### **Output:**



#### Clicking on View friend list button:

All of my friends are displayed on the right side of the screen, only their usernames to protect their sensitive data.



# **Assignment Tasks 06 (Share text):**

Making a new table for messages in this database, called chat:



#### Program:

After clicking on view friend list button, will show the friends with a "send message' button next to it, to start the chat this button redirects to friend\_r.php page, where users can view all their friends and optionally message each one individually.

```
4
145
                <?php
 À
                if(isset($ POST["friends"])){
                echo "<form method='post' id='fform' style='margin-top:20px;'>
147
      <input type='submit' name='flist' Value='View Friend List' style='margin-left:155px;'>
148
149
                </form>";
150
               }
   þ
             if(isset($ POST["flist"])){
            header("Location: /PhTestpProject1/friend_r.php");
153
            exit();
154
```

Friend\_r.php Program, lists all friends and buttons to message each one, uses sessions and cookies to identify friends, and pulls info from the respective database – if button is clicked, redirects to the chat page for that friend.

```
try (
$comp = new FDO("mysqlihost=?servername; dhumme=?dhumme", Susernam
// edn="fids connection";
$comp->metAttribute(FDO::ATTR_ENRANCE, FDO::ENRANCE_EXCEPTION);
           Susernamef = $_EESSION["unername"];
Sqq = "SULECT = FROM friend WHERE DerName2 = "Susernamef" OR UserName1 = "Susernamef";
3q = Scoon=>query(Sqq);
//Sq->eestPatcHibton FROM FROM ARSOCN;
         // displaying the data
Suscer = 5q-ZetchAll(DOI/FECG_ASSOC);
ptatic 5to-y
[foresch(fluorra as frow) {
5t-*:

Story

**Corn method: taylo-'text-align:conter; margin-left:55px;'> dat> Priend: ". $row["UnerHamen!"] . " "

**Corn method: 'Univ-'cirput type-'sminit' name-'Sb' value-'therape Priend: 'd-'bin!' style-'margin-left:5ty/'cform data 
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                            ) catch(PDOException Se) {
                            echo "Failed: " . Se->getMessage();
                            $conn - null;
                           static $t =0;

while($t<100){

    $t++;

    if(inset ($_POST[strval($t)])){

    $servername = "localhost:3311";

    $username = "locenams";

    $gassword = "Locenams";

    $dbname = 'social';
                                    Sconn - new PDO("mysql:host-Sservername; dbname-Sdbname", Susername, Spassword);
                                    $conn->setAttribute(PDO::ATTR ERRMODE, PDO::ERRMODE EXCEPTION);
                            $cidl = $_SESSION["chatID"];
$agl = "SELECT * FROM friend WHERE ID-$cidl";
$q - $conn->query($agl);
//$q->aetratchMode(PD0:)FETCH_ABSOC);
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                                $cid1 = $_SESSION["chatID"];
$sq1 = "SELECT * FROM friend WHERE ID=$cid1";
                                  $q = $conn->query($sql);
                                 // displaying the data
$users = $q->fetchAll(PDO::FETCH_ASSOC);
static $b=0;
                                  foreach (Susers as Srow) (
                                        $b++;
$me = $row["UserName2"];
$you = $row["UserName1"];
                                        $_SESSION["you"] = $you;
$_SESSION["me"] = $me;
                                ) catch (PDOException $e) {
                               echo "Failed: " . $e->getMessage();
                                             header("Location: /PhTestpProject1/chat.php");
exit();
```

As already mentioned, user can choose the friend they would like to chat with and redirects to the chat page (Redirect to chat.php).

#### Program for chat.php – This is where users can text each other:

```
<?php
                      <?php
session_start();
| $servername = "localhost:3311";
$username = "Lorenas";
$password = "Lorenas";
$dbname = 'social';</pre>
                            $conn = new PDO("mysql:host=$servername; dbname=$dbname", $username, $password);
                          $conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
                      $\susernamef = \$_SESSION["username"];
$\frac{aq1}{aq1} = "SELECT * FROM friend WHERE UserName2 = '\$usernamef' OR UserName1 = '\$usernamef'";
                        $g = $conn->query($sql);
                       $users = $q->fetchAll(PDO::FETCH ASSOC);
                         foreach($users as $row){
                           $me = $row["UserName2"];
$you = $row["UserName1"];
$cid = $row["ID"];
                           |//echo $you;

$_SESSION["me"] = $me;

$_SESSION["you"] = $you;

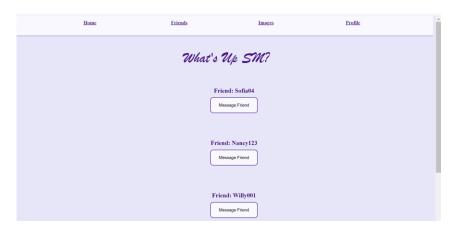
$_SESSION["chatID"] = $cid;
//echo $_SESSION["chatID"];
//echo $_SESSION["you"];
148 |
150
151
152
                      if(isset($ POST["send"])){
    $servername = "localhost:3311";
    $username = "LorenaS";
                      $password = "LorenaS";
153
154
                      Sdbname = 'social':
                           $conn = new PDO("mysql:host=$servername; dbname=$dbname", $username, $password);
158
159
                           $conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
                       $f1 = $_SESSION["you"];
161
                         $f2 = $ SESSION["me"];
163
164
                        $txt = $ POST["box"];
                      166
167
                      $conn->exec($sql);
168
169
                      } catch (PDOException $e) {
                          echo "Failed: " . $e->getMessage();
                      }
174
175
14
16
                      $conn = null;
                     $servername = "localhost:3311";
$username = "Lorenas";
$password = "Lorenas";
          $dbname = 'social';
           //econ- "made comment.com.";
$conn->setAttribute(PD0::ATTR_ERRMODE, PD0::ERRMODE_EXCEPTION);
$f1 = $_SESSION["you"];
$f2 = $_SESSION["me"];
           $aql = "SELECT * FROM chat WHERE Friendl = '$f1' AND Friend2='$f2' OR Friendl = '$f2' AND Friend2='$f1'";
$q = $conn->query($aql);
$q->setFetchMode(PDO::FETCH_ASSOC);
          while($row = $q->fetch())(
              echo "<h3 id='blue'> <br> " . $row["Message"] . " " . " <br> </h3>";
         catch(PDOException $e) (
   echo "Failed: " . $e->getMessage();
         Sconn - null;
```

#### **Output:**

Navigate to the Messages page: (Logged in as Lorena02 – view friends button)



View friend list – redirect to friend\_r.php:



User clicks on Message friend and it takes them to that friends message platform:

Redirect to chat.php, here users can send messages, database is populated, and messages are displayed within the chat:



Both users can see previous messages sent by either user, and send new ones which appear at the bottom:

The program adds the text when the user clicks send, and adds the text to the database:



# Opening a different chat – with a different friend:



# Sending some text:

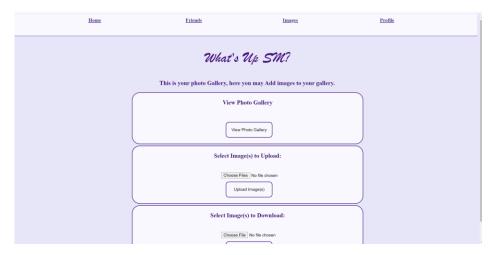


# **Assignment Tasks 07 (Create Photo Gallery):**

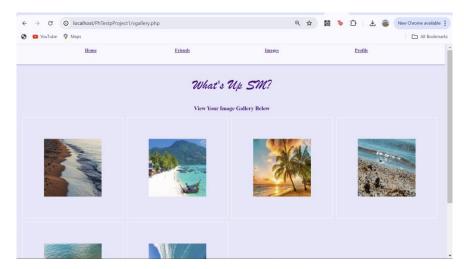
Programming to display all the images in the gallery – all images are pulled from the uploads folder, and displayed in a visually appealing way for the user:

# **Output:**

In the image.php file, user can click on view gallery, to see their photo gallery



# Viewing the photo gallery

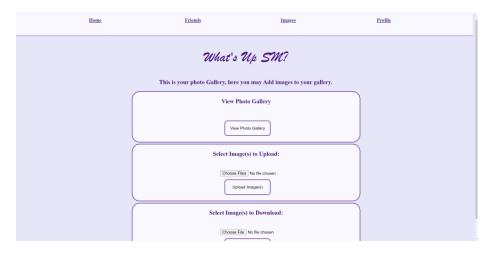


# Assignment Tasks 08 (Upload/Download to Photo Gallery):

Image.php file includes the forms for uploading images and downloading images from gallery:

Program for image.php HTML forms:

#### **Output:**

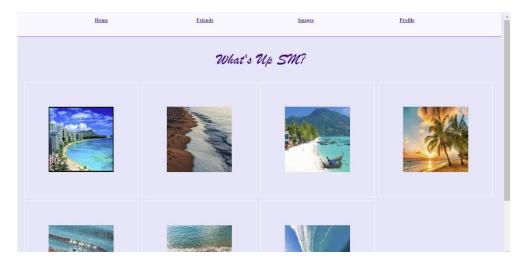


Gallery.php handles the uploading of the images, and displays them upon successful upload.

#### Program for gallery.php:

```
| color*file is not an image*;
| suplemedok-n;
| color*file is not an image*;
| suplemedok-n;
| color*file is not an image*;
| suplemedok-n;
| color*file is not an image*;
| color*file i
```

## After choosing files and uploading them the output looks as follows:



## **Downloading Images**

## Html form to select images to download:

#### Downloadfile.php - which handles the downloading of the files:

#### **Output:**



# Assignment Tasks 09 (Share/upload multiple images):

The screenshots below show the program and output that allows the users to send images within the chat feature by uploading them. Users can view these images sent/received and optionally download the image – as seen in the next task.

#### Program for uploading images – within the chat feature (chat.php)

Displaying and downloading the image in the chat:

Output: Takes place in the chat feature between friends:

Now the chat feature has an additional form; for uploading images to the chat:



After selecting image(s) and uploading them, they are added to the chat, along with the text messages between friends:



# Assignment Tasks 10 (Download shared image):

Allowing the user to download chat images. Program in chat.php:

```
95
 function displayImg($image){
 98
               echo "<h3> Click on image to download <br> </h3>";
 99
               echo "<a href='rotatedimg.jpg' download='rotatedimg.jpg'><img src='rotatedimg.jpg' alt='img' width='200' height='200'>
               </a>";
101
               $fileToDownload = 'rotatedimg.gif';
103
                if(isset($ POST["down"])){
              echo "<a href='download' download='rotatedimg.jpg'>";
106
107
108
109
           displayImg($image);
111
112
           imagedestroy($image);
```

Each time an image is 'sent'/uploaded to the chat, the user can click on the image to download it.

Output of downloading the recently sent image in the chat.

