

# **HAVI TECHNICAL ROUND DOCUMENT**

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# DVELOPMENT DOCUMENT

This document gives you a complete detail about the registration system using PHP and MYSQL where the user can create the account by providing username, email, password and date-of-birth. I have also shown how someone can access the pages only to logged-in users, if any other user is not logged in then they will not be able to access the page.

The first step we should is set up our database. Create a database called havi. In the havi database add a table called users. The users table will take the following three fields.

- Username - varchar(50)
- Email – varchar(50)
- Password – varchar(50)

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1	email	varchar(50)	utf8mb4_general_ci	No	None			Change  Drop  More
<input type="checkbox"/>	2	username	varchar(50)	utf8mb4_general_ci	No	None			Change  Drop  More
<input type="checkbox"/>	3	password	varchar(50)	utf8mb4_general_ci	No	None			Change  Drop  More

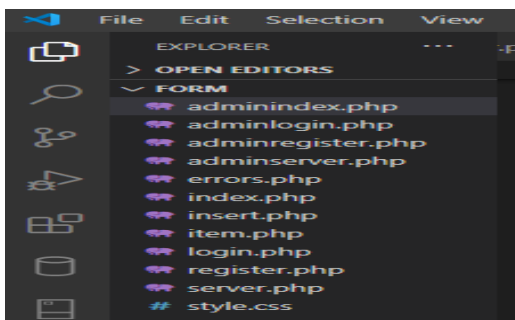
☐ Check all    With selected: Browse Change Drop Primary Unique Index Fulltext Add to central columns  
 Remove from central columns

Or it can be created on MYSQL prompt using the following SQL script:

```
CREATE TABLE `users` (  
  `id` int(11) NOT NULL AUTO_INCREMENT PRIMARY KEY,  
  `username` varchar(100) NOT NULL,  
  `email` varchar(100) NOT NULL,  
  `password` varchar(100) NOT NULL  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

Now create a folder called form in the directory accessible to our server. I.e. create the folder inside htdocs using XAMPP server. Inside the folder from create the following files:

Open these files up in a text editor of your choice. I have used visual studio code.



## Registering a user

Open the register.php file and paste the following code in it.

```
<?php include('server.php') ?>
<!DOCTYPE html>
<html>
<head>
  <title>Registration</title>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
  <div class="header">
    <h2>Register</h2>
  </div>

  <form method="post" action="register.php">
    <?php include('errors.php'); ?>
    <div class="input-group">
      <label>Name</label>
      <input type="text" name="name" placeholder="name" />
    </div>
    <div class="input-group">
      <label>Date of Birth</label>
      <input type="date" name="date" placeholder="DOB" style="background-color:white">
    </div>
    <div class="input-group">
      <label>Username</label>
      <input type="text" name="username" placeholder="username" value="<?php echo $username; ?>" />
    </div>
    <div class="input-group">
      <label>Email</label>
      <input type="text" name="email" placeholder="email" value="<?php echo $email; ?>" />
    </div>
    <div class="input-group">
      <label>Password</label>
      <input type="text" name="password_1" placeholder="password">
    </div>
    <div class="input-group">
      <label>Confirm password</label>
      <input type="text" name="password_2" placeholder="confirm">
    </div>
    <div class="input-group">
      <button type="submit" class="btn" name="reg_user">Register</button>
    </div>
  </form>
  <p>
    Already a member? <a href="login.php">Sign in</a>
  </p>
</body>
</html>
```

A few things to note here:

First is that our form's **action** attribute is set to register.php. This means that when the form submit button is clicked, all the data in the form will be submitted to the same page (register.php). The part of the code that receives this form data is written in the server.php file and that's why we are including it at the very top of the register.php file. We are also including errors.php file to display form errors. And at the head section we are linking to a style.css file and paste the following coding in it.

By using style.css the form looks beautiful and write the code that will receive information submitted from the form and store (register) the information in the database. And open the server.php file.

## Style.css

```
* {
  margin: 0px;
  padding: 0px;
}
body {
  font-size: 120%;
  background: #30465c;
}

.header {
  width: 30%;
  margin: 50px auto 0px;
  color: white;
  background: #631c13;
  text-align: center;
  border: 1px solid #B0C4DE;
  border-bottom: none;
  border-radius: 10px 10px 0px 0px;
  padding: 20px;
}
form, .content {
  width: 30%;
  margin: 0px auto;
  padding: 20px;
  border: 1px solid #B0C4DE;
  background: #85395f;
  border-radius: 0px 0px 10px 10px;
}
.input-group {
  margin: 10px 0px 10px 0px;
}
.input-group label {
  display: block;
  text-align: left;
  margin: 3px;
}
input[type=text] {
  background-color: #f2dede;
  color: rgb(19, 17, 17);
}
input[type=date] {
  background-color: #f2dede;
  color: rgb(158, 157, 157);
}
.input-group input {
  height: 30px;
  width: 93%;
  padding: 5px 10px;
  font-size: 16px;
  border-radius: 5px;
  border: 1px solid gray;
}
.btn {
  padding: 10px;
  font-size: 15px;
  color: white;
  background: #201066;
  border: none;
  border-radius: 5px;
}
.error {
  width: 92%;
  margin: 0px auto;
  padding: 10px;
  border: 1px solid #a94442;
  color: #0a551a;
  background: #c4fac7;
  border-radius: 5px;
  text-align: left;
}
.success {
  color: #3c763d;
  background: #dff0d8;
  border: 1px solid #3c763d;
  margin-bottom: 20px;
}
```

## Server.php

```
<?php
session_start();

// initializing variables
$username = "";
$email    = "";
$errors = array();

// connect to the database
$db = mysqli_connect('localhost', 'root', '', 'havi');

// REGISTER USER
if (isset($_POST['reg_user'])) {
    // receive all input values from the form
    $username = mysqli_real_escape_string($db, $_POST['username']);
    $email = mysqli_real_escape_string($db, $_POST['email']);
    $password_1 = mysqli_real_escape_string($db, $_POST['password_1']);
    $password_2 = mysqli_real_escape_string($db, $_POST['password_2']);

    // form validation: ensure that the form is correctly filled ...
    // by adding (array_push()) corresponding error unto $errors array
    if (empty($username)) { array_push($errors, "Username is required"); }
    if (empty($email)) { array_push($errors, "Email is required"); }
    if (empty($password_1)) { array_push($errors, "Password is required"); }
    if ($password_1 != $password_2) {
        array_push($errors, "The two passwords do not match");
    }

    // first check the database to make sure
    // a user does not already exist with the same username and/or email
    $user_check_query = "SELECT * FROM users WHERE username='$username' OR email='$email' LIMIT 1";
    $result = mysqli_query($db, $user_check_query);
    $user = mysqli_fetch_assoc($result);

    if ($user) { // if user exists
        if ($user['username'] === $username) {
            array_push($errors, "Username already exists");
        }

        if ($user['email'] === $email) {
            array_push($errors, "email already exists");
        }
    }

    if (count($errors) == 0) {
        $password = md5($password_1);
        $query = "INSERT INTO users (username, email, password)
            VALUES ('$username', '$email', '$password')";
        mysqli_query($db, $query);
        $_SESSION['username'] = $username;
        $_SESSION['success'] = "You are now logged in";
        header('location: index.php');
    }
}

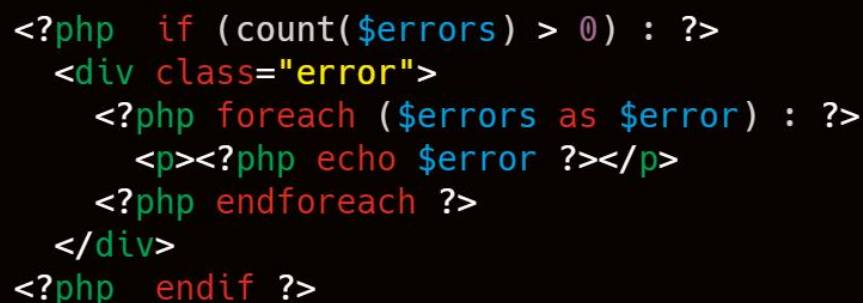
if (isset($_POST['login_user'])) {
    $username = mysqli_real_escape_string($db, $_POST['username']);
    $password = mysqli_real_escape_string($db, $_POST['password']);

    if (empty($username)) {
        array_push($errors, "Username is required");
    }
    if (empty($password)) {
        array_push($errors, "Password is required");
    }
}
```

Sessions are used to track logged in users and so we include a `session_start ()` at the top of the file. The comments in the code pretty much explain everything, but I'll highlight a few things here. The `if` statement determines if the `reg_user` button on the registration form is clicked. Remember, in our form, the submit button has a `name` attribute set to `reg_user` and that is what we are referencing in the `if` statement. All the data is received from the form and checked to make sure that the user correctly filled the form. Passwords are also compared to make sure they match.

If no errors were encountered, the user is registered in the **users** table in the database with a hashed password. The hashed password is for security reasons. It ensures that even if a hacker manages to gain access to your database, they would not be able to read your password. But error messages are not displaying now because our `errors.php` file is still empty. To display the errors, paste this code in the `errors.php` file.

## Errors.php

A code editor window with a dark background and three colored window control buttons (red, yellow, green) in the top left corner. It contains PHP code for displaying errors. The code uses `<?php` tags for conditional logic and loops, and HTML `<div>` and `<p>` tags for styling and output.

```
<?php if (count($errors) > 0) : ?>
  <div class="error">
    <?php foreach ($errors as $error) : ?>
      <p><?php echo $error ?></p>
    <?php endforeach ?>
  </div>
<?php endif ?>
```

When a user is registered in the database, they are immediately logged in and redirected to the `index.php` page. And that's it for registration. Now let's look at user login.

## Login user

Logging a user in is an even easier thing to do. Just open the login page and put this code inside it. Everything on this page is quite similar to the `register.php` page.

```

<?php include('server.php') ?>
<!DOCTYPE html>
<html>
<head>
    <title>Registration system PHP and MySQL</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
    <div class="header">
        <h2>Login</h2>
    </div>

    <form method="post" action="login.php">
        <?php include('errors.php'); ?>
        <div class="input-group">
            <label>Username</label>
            <input type="text" name="username" placeholder="username" >
        </div>
        <div class="input-group">
            <label>Password</label>
            <input type="text" name="password" placeholder="password">
        </div>
        <div class="input-group">
            <button type="submit" class="btn" name="login_user">Login</button>
        </div>
        <p>
            Not Remembering? <a href="register.php">Sign up</a>
        </p>
    </form>
</body>
</html>

```

Now the code that logs the user in is to be written in the same server.php file. So open the server.php file and add this code at the end of the file:

```

if (isset($_POST['login_user'])) {
    $username = mysqli_real_escape_string($db, $_POST['username']);
    $password = mysqli_real_escape_string($db, $_POST['password']);

    if (empty($username)) {
        array_push($errors, "Username is required");
    }
    if (empty($password)) {
        array_push($errors, "Password is required");
    }

    if (count($errors) == 0) {
        $password = md5($password);
        $query = "SELECT * FROM users WHERE username='$username' AND password='$password'";
        $results = mysqli_query($db, $query);
        if (mysqli_num_rows($results) == 1) {
            $_SESSION['username'] = $username;
            $_SESSION['success'] = "You are now logged in";
            header('location: index.php');
        } else {
            array_push($errors, "Wrong username/password combination");
        }
    }
}
?>

```



Again all this does is check if the user has filled the form correctly, verifies that their credentials match a record from the database and logs them in if it does. After logging in, the user is redirected them to the index.php file with a success message. Now let's see what happens in the index.php file. Open it up and paste the following code in it.

## Index.php

```
<?php

session_start();
$username = "";
$email = "";
$errors = array();

// connect to the database
$db = mysqli_connect('localhost', 'root', '', 'havi');
if (!isset($_SESSION['username'])) {
    $_SESSION['msg'] = "You must log in first";
    header('location: login.php');
}
if (isset($_GET['logout'])) {
    session_destroy();
    unset($_SESSION['username']);
    header("location: login.php");
}
?>
<!DOCTYPE html>
<html>
<head>
    <title>Home</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>

<div class="header">
    <h2>Home Page</h2>
</div>
<div class="content">
    <!-- notification message -->
    <?php if (isset($_SESSION['success'])) : ?>
        <div class="error success" >
            <h3>
                <?php
                    echo $_SESSION['success'];
                    unset($_SESSION['success']);
                ?>
            </h3>
        </div>
    <?php endif ?>

    <!-- logged in user information -->
    <?php if (isset($_SESSION['username'])) : ?>
        <p>Welcome <strong><?php echo $_SESSION['username']; ?></strong></p></br>
        <p>SELECT YOUR DESIRED ITEM FROM THE LIST</p></br>
        <form method="post" action="item.php">
            <select name="ite"><option default>SELECT ITEM</option>
            <?php
                $query=mysqli_query($db,"select * from items");
                while($row=mysqli_fetch_array($query))
                {
                    ?>
                    <option><?php echo $row["item"];?></option>
                    <?php
                }
                ?>
            </select><br><br>
            <button type="submit" class="btn" name="submit">Submit</button>
        </form>
        <br><br>
        <p>If your desired item is not available in the list, please enter your desired item</p>
        <br>
        <form method="post" action="insert.php">
            <input type="text" size=15 name="di" >

            <div class="input-group">
                <button type="submit" class="btn" name="submit">Submit</button></div>
        </form>
        <br><br><p> <a href="index.php?logout='1'" style="color: red;">logout</a> </p>
    <?php endif ?>
</div>

</body>
</html>
```



The first if statement checks if the user is already logged in. If they are not logged in, they will be redirected to the login page. Hence this page is accessible to only logged in users. If you'd like to make any page accessible only to logged in users, all you have to do is place this if statement at the top of the file. The second if statement checks if the user has clicked the logout button. If yes, the system logs them out and redirects them back to the login page. And after login the user can select the list of items from the dropdown, if the user doesn't find his item then he can add the item which he wanted and submit it.

## Item.php

```
<?php
session_start();

// initializing variables
$username = "";
$email    = "";
$errors = array();

// connect to the database
$db1 = mysqli_connect('localhost', 'root', '', 'havi');
if(isset($_POST['submit']))
{
    if(!empty($_POST['ite']))
    {
        echo "ITEM SUBMITTED SUCCESSFULLY";
    }
}
?>
```

☐ Show all | Number of rows:

+ Options

item

ragi

raci

wheet

daal

sugar

When the user submit his item then it is store in the database called item.php. The item listen automatically gets updated.

+ Options

item

ragi

raci

wheet

daal

sugar

salt

Now till now we have written code for user login, but now we are going to write a code for admin login.

## Adminregister.php

When the admin is not logged in can click on sign-up and register using adminregister.php. And paste the following code in it:

```
<?php include('adminserver.php') ?>
<!DOCTYPE html>
<html>
<head>
  <title>Admin Registration</title>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
  <div class="header">
    <h2>Register</h2>
  </div>

  <form method="post" action="adminregister.php">
    <?php include('errors.php'); ?>
    <div class="input-group">
      <label>Name</label>
      <input type="text" name="name" >
    </div>
    <div class="input-group">
      <label>Date of Birth</label>
      <input type="date" name="date">
    </div>
    <div class="input-group">
      <label>Username</label>
      <input type="text" name="username" value="<?php echo $username; ?>">
    </div>
    <div class="input-group">
      <label>Email</label>
      <input type="email" name="email" value="<?php echo $email; ?>">
    </div>
    <div class="input-group">
      <label>Password</label>
      <input type="password" name="password_1">
    </div>
    <div class="input-group">
      <label>Confirm password</label>
      <input type="password" name="password_2">
    </div>
    <div class="input-group">
      <button type="submit" class="btn" name="reg_user">Register</button>
    </div>
    <p>
      Already a member? <a href="adminlogin.php">Sign in</a>
    </p>
  </form>
</body>
</html>
```

Let's now write the code that will receive information submitted from the form and store (register) the information in the database. As promised earlier, we do this in the adminserver.php file.

## Adminserver.php

Open adminserver.php and paste this code in it:

```
<?php
session_start();

// initializing variables
$username = "";
$email    = "";
$errors = array();

// connect to the database
$db = mysqli_connect('localhost', 'root', '', 'havi');

// REGISTER USER
if (isset($_POST['reg_user'])) {
    // receive all input values from the form
    $username = mysqli_real_escape_string($db, $_POST['username']);
    $email = mysqli_real_escape_string($db, $_POST['email']);
    $password_1 = mysqli_real_escape_string($db, $_POST['password_1']);
    $password_2 = mysqli_real_escape_string($db, $_POST['password_2']);

    // form validation: ensure that the form is correctly filled ...
    // by adding (array_push()) corresponding error unto $errors array
    if (empty($username)) { array_push($errors, "Username is required"); }
    if (empty($email)) { array_push($errors, "Email is required"); }
    if (empty($password_1)) { array_push($errors, "Password is required"); }
    if ($password_1 != $password_2) {
        array_push($errors, "The two passwords do not match");
    }

    // first check the database to make sure
    // a user does not already exist with the same username and/or email
    $user_check_query = "SELECT * FROM admin WHERE username='$username' OR email='$email' LIMIT 1";
    $result = mysqli_query($db, $user_check_query);
    $user = mysqli_fetch_assoc($result);

    if ($user) { // if user exists
        if ($user['username'] == $username) {
            array_push($errors, "Username already exists");
        }

        if ($user['email'] == $email) {
            array_push($errors, "email already exists");
        }
    }

    if (count($errors) == 0) {
        $password = md5($password_1);

        $query = "INSERT INTO admin (username, email, password)
        VALUES('$username', '$email', '$password')";
        mysqli_query($db, $query);
        $_SESSION['username'] = $username;
        $_SESSION['success'] = "You are now logged in";
        header('location: adminindex.php');
    }
}

if (isset($_POST['login_user'])) {
    $username = mysqli_real_escape_string($db, $_POST['username']);
    $password = mysqli_real_escape_string($db, $_POST['password']);

    if (empty($username)) {
        array_push($errors, "Username is required");
    }
    if (empty($password)) {
        array_push($errors, "Password is required");
    }

    if (count($errors) == 0) {
        $password = md5($password);
        $query = "SELECT * FROM admin WHERE username='$username' AND password='$password'";
        $results = mysqli_query($db, $query);
        if (mysqli_num_rows($results) == 1) {
            $_SESSION['username'] = $username;
            $_SESSION['success'] = "You are now logged in";
            header('location: adminindex.php');
        } else {
            array_push($errors, "Wrong username/password combination");
        }
    }
}

?>
```

## Adminlogin.php

Here if the admin is already login then just enter the username and password to login. Paste the following code in it:

```
<?php include('adminserver.php') ?>
<!DOCTYPE html>
<html>
<head>
  <title>Registration system PHP and MySQL</title>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
  <div class="header">
    <h2>Login</h2>
  </div>

  <form method="post" action="adminlogin.php">
    <?php include('errors.php'); ?>
    <div class="input-group">
      <label>Username</label>
      <input type="text" name="username" >
    </div>
    <div class="input-group">
      <label>Password</label>
      <input type="password" name="password">
    </div>
    <div class="input-group">
      <button type="submit" class="btn" name="login_user">Login</button>
    </div>
    <p>
      Not yet a member? <a href="adminregister.php">Sign up</a>
    </p>
  </form>
</body>
</html>
```

As soon as the admin gets login they can see the number of users who have logged-in. After logging in, the user is redirected them to the adminindex.php file with a success message

## Adminindex.php

```
<?php

session_start();
$username = "";
$email = "";
$errors = array();

// connect to the database
$db = mysqli_connect('localhost', 'root', '', 'havi');
if (!isset($_SESSION['username'])) {
    $_SESSION['msg'] = "You must log in first";
    header('location: adminlogin.php');
}
if (isset($_GET['logout'])) {
    session_destroy();
    unset($_SESSION['username']);
    header("location: adminlogin.php");
}
?>

<!DOCTYPE html>
<html>
<head>
    <title>Home</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>

<div class="header">
    <h2>Home Page</h2>
</div>
<div class="content">
    <!-- notification message -->
    <?php if (isset($_SESSION['success'])) : ?>
        <div class="error success" >
            <h3>
                <?php
                    echo $_SESSION['success'];
                    unset($_SESSION['success']);
                ?>
            </h3>
        </div>
    <?php endif ?>

    <!-- logged in user information -->
    <?php if (isset($_SESSION['username'])) : ?>
        <p>Welcome <strong><?php echo $_SESSION['username']; ?></strong></p></br>
        <?php
            $query=mysqli_query($db,"select * from users");
            while($row=mysqli_fetch_array($query))
            {
                echo $row['username'];
                ?><br><?php
            }
        ?>
        <br><br><p> <a href="adminindex.php?logout=1" style="color: red;">logout</a> </p>
    <?php endif ?>
</div>

</body>
</html>
```

## FUNCTIONAL APPLICATIONAL DOCUMENT:

<http://haviuserlogin0511.unaux.com/>