



PHP | Day 3 | Pre-Work



Day 3 | Php

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ted work is illegal.



Sessions

Sometimes we want to track what our users are doing from one web page to another. PHP provides a very powerful and simpler solution in the form of sessions. These are groups of variables that are stored in the server but relate only to the current user. Sessions provide a solid way of keeping track of your users.

Starting a Session

Starting a session requires calling the PHP function session\_start before any HTML has been output (at the top of the page, very first line). Then, to begin saving session variables, you just assign them as part of the \$\_SESSION array, like this:

```
$_SESSION['variable'] = $value;
```

```
$variable = $_SESSION['variable'];
```

Assume that you have an application that always needs access to the username, password, first name and last name of each user, as stored in the table users. You wouldn't want that the user, when navigating from one page to another, to register each time. Therefore, we need to set up a session. Once a user has been successfully authenticated (logged-in) he/she can navigate through the pages, until the session is destroyed (logging-out). We are checking whether the variable is set using the following command:

```
if (isset($_SESSION['username'])) {  
    // do the following ...  
}
```

## User Registration

First of all, create a database and table as below.  
You can create it by importing the following sql command into your phpmyadmin.  
**database : test\_db**  
**table : users**

Create table:

```
CREATE TABLE IF NOT EXISTS `users` (  
  `userId` int(11) NOT NULL AUTO_INCREMENT,  
  `userName` varchar(30) NOT NULL,  
  `userEmail` varchar(60) NOT NULL,  
  `userPass` varchar(255) NOT NULL,  
  PRIMARY KEY (`userId`),  
  UNIQUE KEY `userEmail` (`userEmail`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8 AUTO_INCREMENT=1 ;
```

Now we have to create following files..  
-dbconnect.php  
-register.php  
-index.php  
-home.php  
-logout.php

dbconnect.php: contains code for localhost connection and database selection.

```
<?php  
// this will avoid mysql_connect() deprecation error.  
error_reporting( ~E_DEPRECATED & ~E_NOTICE );  
  
define('DBHOST', 'localhost');  
define('DBUSER', 'root');  
define('DBPASS', '');  
define('DBNAME', 'test_db');  
  
$conn = mysqli_connect(DBHOST,DBUSER,DBPASS,DBNAME);  
  
if ( !$conn ) {  
    die("Connection failed : " . mysqli_error());  
}  
  
?>
```

register.php: this file contains a simple html form with all the required registration fields except user id because it's auto incremented and some php code for registering a new user. All the user registration process can be done in this single php file.

```
<?php  
ob_start();  
session_start(); // start a new session or continues the previous  
if( isset($_SESSION['user'])!="") {  
    header("Location: home.php"); // redirects to home.php  
}  
include_once 'dbconnect.php';  
$error = false;  
if ( isset($_POST['btn-signup']) ) {  
  
    // sanitize user input to prevent sql injection  
    $name = trim($_POST['name']);  
    $name = strip_tags($name);  
    $name = htmlspecialchars($name);  
  
    $email = trim($_POST['email']);  
    $email = strip_tags($email);  
    $email = htmlspecialchars($email);  
  
    $pass = trim($_POST['pass']);  
    $pass = strip_tags($pass);  
    $pass = htmlspecialchars($pass);  
  
    // basic name validation  
    if (empty($name)) {  
        $error = true;  
        $nameError = "Please enter your full name.";  
    } else if (strlen($name) < 3) {  
        $error = true;  
        $nameError = "Name must have atleast 3 characters.";  
    } else if (!preg_match("/^[a-zA-Z ]+$/",$name)) {  
        $error = true;  
        $nameError = "Name must contain alphabets and space.";  
    }  
  
    //basic email validation
```

```
if ( !filter_var($email,FILTER_VALIDATE_EMAIL) ) {
    $error = true;
    $emailError = "Please enter valid email address.";
} else {
    // check whether the email exist or not
    $query = "SELECT userEmail FROM users WHERE userEmail='$email'";
    $result = mysqli_query($conn, $query);
    $count = mysqli_num_rows($result);
    if($count!=0){
        $error = true;
        $emailError = "Provided Email is already in use.";
    }
}
// password validation
if (empty($pass)){
    $error = true;
    $passError = "Please enter password.";
} else if(strlen($pass) < 6) {
    $error = true;
    $passError = "Password must have atleast 6 characters.";
}

// password hashing for security
$password = hash('sha256', $pass);

// if there's no error, continue to signup
if( !$error ) {

    $query = "INSERT INTO users(userName,userEmail,userPass) VALUES('$name','$email','$password')";
    $res = mysqli_query($conn, $query);

    if ($res) {
        $errTyp = "success";
        $errMSG = "Successfully registered, you may login now";
        unset($name);
        unset($email);
        unset($pass);
    } else {
        $errTyp = "danger";
        $errMSG = "Something went wrong, try again later...";
    }
}

}
?>
<!DOCTYPE html>
<html>
<head>
<title>Login & Registration System</title>
<link rel="stylesheet" href="//maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css" integrity="sha384-BVYiiSIFeK1dGmJRAKycuHAHRg32OmUcww7on3RYdg4Va+PmSTsz/K68vbdEjh4u" crossorigin="anonymous">
</head>
<body>
    <form method="post" action="<?php echo htmlspecialchars($_SERVER['PHP_SELF']); ?>" autocomplete="off">

        <h2>Sign Up.</h2>
        <hr />

        <?php
        if ( isset($errMSG) ) {

            ?>
            <div class="alert alert-<?php echo $errTyp ?>">
                <?php echo $errMSG; ?>
            </div>

        <?php
        }
        ?>

        <input type="text" name="name" class="form-control" placeholder="Enter Name" maxlength="50" value="
        <?php echo $name ?>" />

        <span class="text-danger"><?php echo $nameError; ?></span>

        <input type="email" name="email" class="form-control" placeholder="Enter Your
        Email" maxlength="40" value="<?php echo $email ?>" />

        <span class="text-danger"><?php echo $emailError; ?></span>

        <input type="password" name="pass" class="form-control" placeholder="Enter
        Password" maxlength="15" />

        <span class="text-danger"><?php echo $passError; ?></span>

        <hr />

        <button type="submit" class="btn btn-block btn-primary" name="btn-signup">Sign Up</button>
        <hr />

        <a href="index.php">Sign in Here...</a>

    </body>
</html>
?>
```

```
        </form>
</body>
</html>
<?php ob_end_flush(); ?>
```

User Login

**index.php/login:** this file also contains an html form with two input boxes, which will take the user email and user password entered by the user and then after submitting the form, the php code will match the user email and password combination in the database. When it finds both results in the table then it will start a session and allow the user to access the home page, otherwise it will show an appropriate message.

```
<?php
ob_start();
session_start();
require_once 'dbconnect.php';

// it will never let you open index(login) page if session
is set
if ( isset($_SESSION['user'])!="") {
    header("Location: home.php");
    exit;
}

$error = false;

if( isset($_POST['btn-login']) ) {

    // prevent sql injections/ clear user invalid inputs
    $email = trim($_POST['email']);
    $email = strip_tags($email);
    $email = htmlspecialchars($email);

    $pass = trim($_POST['pass']);
    $pass = strip_tags($pass);
    $pass = htmlspecialchars($pass);
    // prevent sql injections / clear user invalid inputs

    if(empty($email)){
        $error = true;
        $emailError = "Please enter your email address.";
    } else if ( !filter_var($email,FILTER_VALIDATE_EMAIL) ) {
        $error = true;
        $emailError = "Please enter valid email address.";
    }

    if(empty($pass)){
        $error = true;
        $passError = "Please enter your password.";
    }

    // if there's no error, continue to login
    if (!$error) {

        $password = hash('sha256', $pass); // password hashing

        $res=mysqli_query($conn, "SELECT userId, userName,
userPass FROM users WHERE userEmail='$email'");
        $row=mysqli_fetch_array($res, MYSQLI_ASSOC);
        $count = mysqli_num_rows($res); // if uname/pass correct
it returns must be 1 row

        if( $count == 1 && $row['userPass']==$password ) {
            $_SESSION['user'] = $row['userId'];
            header("Location: home.php");
        } else {
            $errMSG = "Incorrect Credentials, Try again...";
        }

    }

}
?>
<!DOCTYPE html>
<html>
<head>
<title>Login & Registration System</title>
</head>
<body>
    <form method="post" action="<?php echo
htmlspecialchars($_SERVER['PHP_SELF']); ?
>" autocomplete="off">

        <h2>Sign In.</h2>
        <hr />

        <?php
        if ( isset($errMSG) ) {
echo $errMSG; ?>

            <?php
        }
        ?>

        <input type="email" name="email" class="form-
control" placeholder="Your Email" value="<?php echo
$email; ?>" maxlength="40" />

        <span class="text-danger"><?
php echo $emailError; ?></span>
```

```
<input type="password" name="pass" class="form-control" placeholder="Your Password" maxLength="15" />

        <span class="text-danger"><?
php echo $passError; ?></span>
        <hr />
        <button type="submit" name="btn-login">Sign
In</button>

        <hr />

        <a href="register.php">Sign Up Here...</a>

    </form>
</div>
</div>
</body>
</html>
<?php ob_end_flush(); ?>
```

Home page

**home.php:** this page shows the welcome message of the logged in user with username and a hyperlink to logout the user and redirects the ‘logout.php’ page.

```
<?php
ob_start();
session_start();
require_once 'dbconnect.php';

// if session is not set this will redirect to login page
if( !isset($_SESSION['user']) ) {
    header("Location: index.php");
    exit;
}
// select logged-in users detail
$res=mysqli_query($conn, "SELECT * FROM users WHERE
userId=".$_SESSION['user']);
$userRow=mysqli_fetch_array($res, MYSQLI_ASSOC);
?>
<!DOCTYPE html>
<html>
<head>
<title>Welcome - <?php echo $userRow['userEmail']; ?>
</title>
</head>
<body>

        Hi' <?php echo $userRow['userEmail']; ?>

        <a href="logout.php?logout">Sign Out</a>

</body>
</html>
<?php ob_end_flush(); ?>
```

User Logout

**logout.php:** this page contains only a few lines of php code to unset and destroy the current logged in users session, and after destroying the session the page automatically redirect to the ‘index/login’ page.

```
<?php
session_start();
if (!isset($_SESSION['user'])) {
    header("Location: index.php");
} else if(isset($_SESSION['user'])!="") {
    header("Location: home.php");
}

if (isset($_GET['logout'])) {
    unset($_SESSION['user']);
    session_unset();
    session_destroy();
    header("Location: index.php");
    exit;
}
?>
```