

Department of Information Technology, State Polytechnic of Malang Jobsheet-8: PHP - Form Upload, Cookies and Session Web Design and Programming Courses

Web Design and Programming Teaching Team October 2024

Topic

- The concept of Form Upload with PHP and Jquery.
- Introduction to the concept of cookies.
- Introduction to session concepts.

Objectives

Students are expected to:

- 1. Students are able to create upload forms using PHP and jQuery.
- 2. Understand the basic concepts of cookies and its use.
- 3. Understand the basic concept of session and its use.

Introduction

File Upload

File upload in PHP is the process of uploading files from a user's computer to a web server. File uploads are useful in many cases such as when users want to upload a profile picture, document, or other media to a website. To do this, it can use the HTML element **type="file>** along with PHP to manage the upload process.

Here are the general steps to implement file uploads in PHP:

- Create an HTML form to upload a file:

- Create a PHP script (**upload.php**) to manage file uploads:

```
<?php
if (isset($_POST["submit"])) {
    $targetDirectory = "uploads/"; // Direktori tujuan untuk menyimpan file
    $targetFile = $targetDirectory . basename($_FILES["fileToUpload"]["name"]);

if (move_uploaded_file($_FILES["fileToUpload"]["tmp_name"], $targetFile)) {
    echo "File berhasil diunggah.";
    } else {
    echo "Gagal mengunggah file.";
    }
}</pre>
```

Above, we take some important steps:

- Create an HTML form with an **element <input type="file>** that allows users to select the file they want to upload.
- Set the form **enctype** attribute to **"multipart/form-data"** so that the file can be uploaded.
- When the user clicks the "Upload File" button, the form data will be sent to **the upload.php**.
- In **upload.php**, we check if the user has clicked the submit button (**\$_POST["submit"]**) and then specify the destination directory to save the file to.
- **move_uploaded_file()** is used to move files from a temp directory to a predefined destination directory.
- The corresponding message (success or failure) will be displayed to the user.

Make sure you have an **uploads** directory on your server, and give it the appropriate permissions so that PHP can store files there.

Practical Section 1. Files

Step	Description
1	Create a new file in the week8 directory, naming it form_upload.php.
2	<pre>Type into the form_upload.php code file below.</pre>
3	Create a new file named upload.php that will be used for processing form_upload.php .

```
if(isset($_POST["submit"])){
             $targetdir = "uploads/"; //Direktori tujuan untuk menyimpan file
             $targetfile = $targetdir . basename($_FILES["myfile"]["name"]);
             if(move_uploaded_file($_FILES["myfile"]["tmp_name"], $targetfile)){
                 echo "File berhasil diunggah.";
             else{
                 echo "Gagal mengunggah file.";
4
        Save the file, then open a browser and run localhost/week8/form upload.php.
        Select a file and click the Submit button. Observe what happens and record your
        understanding. (Question No. 1)
5
        Next, create a folder named uploads in the week8. Re-run
        localhost/week8/form upload.php.
        Select a file and click the Submit button. Observe what happens and record your
        understanding. (Question No. 2)
6
        Change the contents of the upload.php file with the following code
         if(isset($_POST["submit"])){
            $targetdir = "uploads/"; //Direktori tujuan untuk menyimpan file
            $targetfile = $targetdir . basename($_FILES["myfile"]["name"]);
            $fileType = strtolower(pathinfo($targetfile, PATHINFO_EXTENSION));
            $allowedExtensions = array("jpg", "jpeg", "png", "gif");
            $maxsize = 5*1024*1024;
            if (in_array($fileType, $allowedExtensions) && $_FILES["myfile"]["size"]<=$maxsize)
                if(move_uploaded_file($_FILES["myfile"]["tmp_name"], $targetfile)){
                    echo "File berhasil diunggah.";
                    echo "Gagal mengunggah file.";
                echo "File tidak valid atau melebihi ukuran maksimum yang diizinkan";
7
        Save the file, open a browser and run localhost/week8/form_upload.php
        Select a file with the .pdf extension or .docx. Click the Submit button.
        Observe what happens and record your understanding.
        (Question No. 3)
```

```
8
         Next run localhost/week8/form upload.php again.
        Select a file with the extension .jpg, .jpeg, .png, or .gif. Click the Submit button.
        Observe what happens and record your understanding.
        (Question No. 4)
9
         Add script from step 6 to display thumbnail image files with a width of 200 and height
        following the changes automatically after the image file is successfully uploaded.
         Screen shoot the additional code. Explain your understanding after adding the program
         code.
        (Question No. 5)
10
         Next, change the contents of the upload.php file with the following code.
          if(isset($_POST["submit"])){
              $targetdir = "uploads/"; //Direktori tujuan untuk menyimpan file
              $targetfile = $targetdir . basename($_FILES["myfile"]["name'
              $fileType = strtolower(pathinfo($targetfile, PATHINFO_EXTENSION));
              $allowedExtensions = array("txt", "pdf", "doc", "docx");
              $maxsize = 3*1024*1024;
              if (in_array($fileType, $allowedExtensions) && $_FILES["myfile"]["size"]<=$maxsize)
                  if(move_uploaded_file($_FILES["myfile"]["tmp_name"], $targetfile)){
                     echo "File berhasil diunggah";
                     echo "Gagal mengunggah file.";
                 echo "File tidak valid atau melebihi ukuran maksimum yang diizinkan";
11
        Save the file, open a browser and run localhost/week8/form_upload.php
         Select a file with an extension of .txt, .pdf, .doc, or .docx that is more than 5 MB in
         size. Click the Submit button. Observe what happens and record your understanding.
        (Question No. 6)
```

Next run localhost/week8/form_upload.php again.
Select a file with the extension .txt, .pdf, .doc, or .docx that is less than 3 MB in size.
Click the Submit button. Observe what happens and record your understanding.
(Question No. 7)

Practical Section 2. Multi Upload File

```
Description
Step
 1
          Create a new file named form multiupload.php.
          Type the following code into form_multiupload.php.
           <!DOCTYPE html>
               <title>Multiupload Dokumen</title>
               <h2>Unggah Dokumen</h2>
               <form action="proses upload.php" method="post" enctype="multipart/form-data">
                   <input type="file" name="files[]" multiple="multiple" accept=".pdf, .doc, .docx"</pre>
                   <input type="submit" value="Unggah" />
               </form>
 3
          Create a new file named proses_upload.php. Type the following code.
             // Lokasi penyimpanan file yang diunggah
            $targetDirectory = "documents/";
            if (!file_exists($targetDirectory)) {
                mkdir($targetDirectory, 0777, true);
            if ($_FILES['files']['name'][0]) {
                $totalFiles = count($_FILES['files']['name']);
                // Loop melalui semua file yang diunggah
                for ($i = 0; $i < $totalFiles; $i++) {</pre>
                    $fileName = $_FILES['files']['name'][$i];
                    $targetFile = $targetDirectory . $fileName;
                    // Pindahkan file yang diunggah ke direktori penyimpanan
                    if (move_uploaded_file($_FILES['files']['tmp_name'][$i], $targetFile)) {
                        echo "File $fileName berhasil diunggah.<br>";
                    } else {
                        echo "Gagal mengunggah file $fileName.<br>";
            } else {
                echo "Tidak ada file yang diunggah.";
```

Save the file, open the browser and run
localhost/week8/form_multiupload.php. Select multiple files at once to
upload. What do you understand from the script in the file? Record your
understanding.
(Question No. 8)

Change the code for multi upload of images.
Screen shoot the code changes and provide an explanation of the code.
(Question No. 9)

Practical Section 3. Upload Files with PHP and Jquery

Step	Description
1	Create a new file named form_upload_ajax.php
2	Type the following code on the form_upload_ajax.php
	html <html> <head></head></html>
	<pre><body> <form action="upload_ajax.php" enctype="multipart/form-data" id="upload-form" method="post"></form></body></pre>
	<pre></pre>
3	Create a new file named upload.js . Write the following code.

```
$(document).ready(function(){
    $('#upload-form').submit(function(e){
       e.preventDefault();
       var formData = new FormData(this);
       $.ajax({
            type: 'POST',
            url: 'upload_ajax.php',
            data: formData,
            cache: false,
            contentType: false,
            processData: false,
            success: function(response){
                $('#status').html(response);
            },
            error: function(){
                $('#status').html('Terjadi kesalahan saat mengunggah file.');
       });
   });
});
```

4 Create a new file named **upload_ajax.php**. Write the following code.

```
if (isset($_FILES['file'])) {
   $errors = array();
   $file_name = $_FILES['file']['name'];
   $file_size = $_FILES['file']['size'];
   $file_tmp = $_FILES['file']['tmp_name'];
   $file_type = $_FILES['file']['type'];
   @$file_ext = strtolower("" . end(explode('.', $_FILES['file']['name'])) . "");
$extensions = array("pdf", "docx", "txt");
    if (in_array($file_ext, $extensions) === false) {
        $errors[] = "Ekstensi file yang diizinkan adalah PDF, DOC, DOCX, atau TXT.";
    if ($file_size > 2097152) {
        $errors[] = 'Ukuran file tidak boleh lebih dari 2 MB';
    if (empty($errors) == true) {
        move_uploaded_file($file_tmp, "documents/" . $file_name);
        echo "File berhasil diunggah.
        echo implode(" ", $errors);
}
```

Save the file, then open a browser and run localhost/week8/form_upload_ajax.php.

- Upload a file in the form of an image.
- Upload a PDF file that is > 4 MB in size.
- Upload .docx files with a size of < 2 MB.

	Observe what is happening and explain your understanding. (Question No. 10)
6	Change the code to be able to do multi-upload image files. Screenshot the code changes and explain the code. (Question No. 11)

Practical Section 4. Decorate Upload Files

Practical Section 3
post" enctype= ass="file-input"> File ad-button" id="upload-button"
">
owing code.

```
$(document).ready(function(){
    $('#file').change(function(){
       if (this.files.length > 0) {
            $('#upload-button').prop('disabled', false).css('opacity', 1);
            $('#upload-button').prop('disabled', true).css('opacity', 0.5);
    });
   $('#upload-form').submit(function(e){
        e.preventDefault();
        var formData = new FormData(this);
        $.ajax({
            type: 'POST',
            url: 'upload_ajax.php',
            data: formData,
            cache: false,
            contentType: false,
            processData: false,
            success: function(response){
               $('#status').html(response);
            error: function(){
               $('#status').html('Terjadi kesalahan saat mengunggah file.');
       });
});
```

3 Create a new file named **upload.css**. Type the following code:

```
.upload-form-container {
    max-width: 400px;
    margin: 0 auto;
    padding: 20px;
    border: 1px solid #ccc;
    border-radius: 5px;
    text-align: center;
h2 {
    margin: 0;
    font-size: 24px;
    color: #333;
.file-input-container {
    display: flex;
    justify-content: center;
    align-items: center;
    margin: 20px 0;
.file-input {
    display: none;
```

```
.file-label {
             background: #3498db;
            color: #fff;
            padding: 10px 20px;
             border-radius: 5px;
             cursor: pointer;
         .upload-button {
            background: #2ecc71;
            color: #fff;
             padding: 10px 20px;
            border: none;
            border-radius: 5px;
             cursor: pointer;
             opacity: 0.5; /* Opacity to make it appear faded */
         .upload-button:disabled {
             background: #ccc; /* Change color when disabled */
             cursor: not-allowed; /* Change cursor style when disabled */
         .upload-status {
            margin-top: 20px;
             font-weight: bold;
4
       Save the file. Open a browser and run
       localhost/week8/form_upload_ajax.php.
       What do you understand from the program code above? Record your understanding.
       (Question No. 12)
```

Introduction to Cookies

A cookie is a value that is sent and embedded by a server on the client's computer. Cookies are small files that are generally less than 100 bytes, so they won't affect your browsing speed. Cookies contain Description relating to the user. Cookies are useful for making it easier for users, such as "remembering" users every time they visit the same website.

The Description stored in *cookies* is simple data about user habits. A simple example is when a user visits a website that offers a view with English and Indonesian versions. If the user selects Indonesian, *the cookies* will automatically save the configuration. This configuration will be remembered, so that if the user visits the website again, the user does not need to select the language type again.

Cookies have an expiration date, meaning that any data stored on the user's computer could at some point be lost or destroyed. Based on their age, cookies are divided into two types, namely session cookies and persistent cookies. Session cookies are a type of cookie that is stored temporarily and will

disappear when the user closes *the browser*. *These session cookies* are usually used in the "shopping cart" feature of online shopping sites. *Persistent cookies* are a type of *cookie* that is permanently stored on the computer until the user decides to delete it. *Persistent cookies* are generally used in the "remember me" feature when logging in.

PHP has functions that can be used to create and retrieve cookie values. Cookies must be declared before the page is displayed, which means they are written before the <html> tag. Cookies are created using the setcookie() function. Here is the basic syntax of the setcookie() function:

```
<?php
setcookie(name, value, expire);
?>
```

Description:

- name, is the name of the cookie or variable that identifies the cookie
- value, contains the value stored in the *cookie*
- **expire**, is the period of time *that cookies* will be stored on the computer

After knowing how to create *cookies*, then the value of the cookies that have been created can be retrieved using the **\$_COOKIE** variable. The following is the syntax for retrieving the value *of cookies*:

```
<?php
    $_COOKIE['user'];
?>
```

Practical Section 5. Creating Cookies

Step	Description
1	Create a new file named cookiesCreate.php, then type the following code. 1
2	Create a new file named cookiesCall.php , then type the following code. Create a new file named cookiesCall.php , then type the following code.
3	Open a <i>browser</i> and run the program code in step 2 by typing localhost/week8/cookiesCall.php
4	Observe and explain your observations (Question No. 13)
5	Open a <i>browser</i> and run the program code step 1 by typing localhost/week8/cookiesCreate.php

6	Repeat step 3.
7	Observe and explain the results displayed (Question No. 14)
8	Restart your computer.
9	Once the computer is turned on, restart Apache on the laragon.
10	Open the same browser as before then repeat step 3.
11	Observe and explain the results displayed. (Question No. 15)

Practical Section 6. Deleting the Value of Cookies

In this Practical Section, it will be discussed how to delete the value of *cookies*. If in the previous Practical Section the *cookies* were set with an *expiration* time()+3600, then to delete the cookie value is as follows:

Step	Description
1	Create a new file with cookiesDel.php name, then type the following code. 1
2	Open a <i>browser</i> and run the program code by typing localhost/week8/cookiesDel.php
3	Open a <i>browser</i> and run the program code from the part 5 Practical Section by typing localhost/week8/cookiesCall.php
4	Observe and describe the results from steps 2 and 3, then draw conclusions. (Question No. 16)

Practical Section 7. Application of Cookies to the Shopping Cart Feature

One example of the use of *cookies* is the "shopping cart" feature on the online store web application. The shopping cart contains the items that the user will buy. *Cookies* are used to remember the number of items selected by the user. Here is an example of the use *of cookies* in the shopping cart feature:

```
Description
Step
 1
        Create a new file with formBeli.html name, then type the following code.
             2
                  <head>
            F
         3
                  </head>
         4
                  <body>
             白
         5
                      <form action="prosesBeli.php" method="POST">
              Jumlah Novel yang dibeli :
         7
                          <input type="text" name="beliNovel" value= "0" size="2"> 
             8
                          > Jumlah Buku Teks yang dibeli :
         9
                          <input type="text" name="beliBuku" value= "0" size="2"> 
        10
                          <input type="submit">
                      </form>
        12
                  </body>
             L</html>
        13
 2
        Create a new file named prosesBeli.php, then type the following code.
        2
                   if(isset($ POST["beliNovel"]) && isset($ POST["beliBuku"])){
                       setcookie("beliNovel", $ POST["beliNovel"]);
         3
                       setcookie("beliBuku", $ POST["beliBuku"]);
         4
         5
                       header ("location: keranjangBelanja.php");
         6
         7
             L?>
 3
        Create a new file named keranjangBelanja.php, then type the following code.
             2
                   <head>
         3
                   </head>
         4
                   <body>
         5
                       <h2> Keranjang Belanja </h2>
         6
         7
                       <?php
         8
                            $beliNovel=$ COOKIE['beliNovel'];
         9
                            $beliBuku = $_COOKIE['beliBuku'];
        10
                            echo "Jumlah Novel:" . $beliNovel . " <br>";
        11
                            echo "Jumlah Buku :" . $beliBuku ;
        12
        13
        14
                   </body>
        15
             L</html>
 4
        Open a browser and run the program code step 3 by typing
        localhost/week8/keranjangBelanja.php
 5
        Observe and explain the results displayed.
        (Question No. 17)
 6
        Run the program code step 1 by typing localhost/week8/formBeli.html
 7
        Fill in the number of novels and textbooks you want to buy and then click the "submit" button.
 8
        Observe and explain the results displayed.
        (Question No. 18)
```

9	Close <i>the browser</i> then reopen <i>the browser</i> then re-run the program code step 3 by typing localhost/week8/keranjangBelanja.php
10	Observe and explain the results displayed. (Question No. 19)

Session Introduction

Session is one of the facilities in PHP that is used to store data as a result of being stored in variables, so that the data can be accessed by the user as long as the session variable is not emptied or deleted. Sessions are almost the same in principle as cookies, the difference is the position of the data storage. If cookies store data on the client, the session data will be stored on the server side. So sessions are relatively safer to use to store confidential value variables such as usernames and passwords at the time of login. Examples of using sessions include storing valid login Description in only one session and storing records of ordering goods in the e-commerce/online transaction system. The following table describes the comparison of cookies and sessions:

Comparison	of	Cookies	and	Sessions
Companioon	$_{\prime\prime}$	COUNTED	unu	Debbielib

	Storing Description	Storage Location	Can be summoned	Global	Can be called up at another time	Browser Restricted	User editable
Cookies	Yes	Client	Yes	Yes	Yes	Yes	Yes
Session	Yes	Server	Yes	Yes	Not	Not	Not

To create *a session* in PHP the **session_start()** function is used. Here is the basic syntax for starting *a session*:

```
<?php
   session_start();
?>
```

Once *the session* starts, the *session* variable can be used. The variable in question is the PHP global variable **\$_SESSION**. Here's the syntax of using the **\$_SESSION** global variable:

```
<?php
   $_SESSION['nameVariable'];
?>
```

Practical Section 8. Creating a Session

```
Step
        Description
 1
        Create a new file named sessionCreate.php, then type the following code.
              2
                    session start();
          3
               L ?>
          4
                <!DOCTYPE html>
          5
              -<html>
          6
          7
                    <body>
              8
                        <?php
          9
                             $ SESSION["favcolor"] = "green";
                            $ SESSION["favanimal"] = "cat";
         10
                            echo "Session variables are set.";
         11
         12
         13
                    </body>
         14
               L</html>
 2
        Create a new file named sessionCall.php, then type the following code.
          2
                   session start();
          3
               <!DOCTYPE html>
          4
             =<html>
          5
             \varphi
          6
                   <body>
          7
                           echo "Favorite color is " . $ SESSION["favcolor"] . ".<br>";
          8
                           echo "Favorite animal is " . $_SESSION["favanimal"] . ".";
          9
         10
         11
                   </body>
         12
              L</html>
 3
        Open a browser and run the program code in step 2 by typing
        localhost/week8/sessionCall.php
 4
        Open a browser and run the program code step 1 by typing
        localhost/week8/sessionCreate.php
 5
        Repeat step 3
 6
        Observe and explain the results displayed
        (Question No. 20)
```

Practical Section 9. Removing Session Values

PHP provides a **session_destroy()** function that can be used to delete *sessions*.

Step	Description
1	Create a new file named sessionDel.php , then type the following code.

```
=<?php
        2
                session start();
        3
        4
        5
             <!DOCTYPE html>
          6
        7
           <body>
        8
                    <?php
        9
                        session_unset();
       10
                        session destroy();
       11
       12
                        echo "All session variables are now removed, and the session is destroyed."
       13
       14
                 </body>
            </html>
       15
2
       Open a browser and run the program code by typing
       localhost/week8/sessionDel.php
3
       Open a browser and run the program code from the Practical Section 8 by typing
       localhost/week8/sessionCall.php
4
       Observe and explain the results displayed.
       (Question No. 21)
```

Practical Section 10. Implementation of Session on the Login Feature

```
Step
       Description
 1
        Create a new file named sessionLoginForm.html, then type the following code
               <title>File Upload</title>
               <form action="sessionLoginProcess.php" method="POST">
                         Username
                         <input type="text" name="username" size="20">
                         Password
                         <input type="password" name="password" size="20">
                          
                         <input type="submit" name="login" value="Login">
                   </form>
 2
        Create a file named sessionLoginProcess.php, then type the following code.
```

```
$username = $_POST['username'];
           $password = $_POST['password'];
           if($username=="admin" && $password=="1234"){
               session_start();
               $_SESSION["username"] = $username;
               $_SESSION["status"] = 'login';
               echo "Anda berhasil login. Silahkan menuju <a href='homeSession.php'>Halaman Home</a>";
               echo "Gagal login. Silahkan login lagi <a href='sessionLoginForm.html'>Halaman Login</a>";
3
       Create a file named homeSession.php, then type the following code.
               <title>Halaman Home</title>
                  session_start();
                   if($_SESSION['status']=='login'){
                      echo "Selamat datang " . $_SESSION['username'];
                      <br><a href="sessionLogout.php">Logout</a>
                      echo "Anda belum login, silahkan";
                      <a href="sessionLoginForm.html">Login</a>
         /html>
4
       Create a file named sessionLogout.php, then type the following code.
              session start();
              session destroy();
              echo "Anda berhasil logout";
5
       Open a browser and run the program code by typing
       localhost/week8/sessionLoginForm.html
6
       Log in using your email username and password "0000".
7
       Observe and explain the results displayed
       (Question No. 22)
8
       Re-run the program code by typing localhost/week8/sessionLoginForm.html
       Log in using the username "admin" and password "1234".
```

9	Observe and explain the results displayed (Question No. 23)
10	Describe the sequence of the process from login to logout (also mention the order in which the files are processed) (Question No. 24)