
Pemrograman PHP Lanjut

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Bengkel Pemrograman Internet

PHP5

- PHP adalah bahasa pemrograman server-scripting
- Bersifat powerful, dinamis dan mendukung web interactive

```
<!doctype html>
<html>
<head>
<meta charset="utf-8">
<title>PHP5</title>
</head>
<body>

<?php
echo "Belajar PHP5";
?>

</body>
</html>
```

Tampilan

Belajar PHP5

PHP5

- PHP merupakan singkatan dari “PHP Hypertext Preprocessor”
- PHP banyak digunakan dan merupakan bahasa scripting open source
- Script PHP dieksekusi pada sisi server
- PHP bebas di-download dan digunakan



PHP Case-Sensitivity

- Pada PHP semua fungsi, class dan keyword (if, else, while dan echo) → **Tidak Case-Sensitive**

```
<?php  
ECHO "Politeknik Elektronika Negeri Surabaya<br>";  
echo "Politeknik Elektronika Negeri Surabaya<br>";  
EcHo "Politeknik Elektronika Negeri Surabaya<br>";  
?>
```

Tampilan

Politeknik Elektronika Negeri Surabaya
Politeknik Elektronika Negeri Surabaya
Politeknik Elektronika Negeri Surabaya

PHP Case-Sensitivity

- Semua variabel adalah **Case-Sensitive**

```
<?php
$color="red";
echo "My car is " . $color . "<br>";
echo "My house is " . $COLOR . "<br>";
echo "My boat is " . $coLOR . "<br>";
?>
```

Tampilan

My car is red

Notice: Undefined variable: COLOR in C:\xampp\htdocs\pemrograman_internet\php\variable-case-sensitive.php on line 13

My house is

Notice: Undefined variable: coLOR in C:\xampp\htdocs\pemrograman_internet\php\variable-case-sensitive.php on line 14

My boat is

Variabel Global PHP

- Variabel global → selalu dapat diakses dari fungsi atau class manapun
- Variabel global pada PHP diantaranya :
 - \$GLOBALS
 - \$_SERVER
 - \$_REQUEST
 - \$_POST
 - \$_GET
 - \$_FILES
 - \$_ENV
 - \$_COOKIE
 - \$_SESSION

Variabel \$GLOBALS pada PHP

- \$GLOBALS adalah variabel super global pada PHP yang digunakan untuk mengakses variabel global script PHP dimanapun (dari fungsi atau method yang lain)
- PHP menyimpan semua variabel global di dalam sebuah array dengan memanggil **\$GLOBAL[index]**

```
<?php
$x = 75;
$y = 25;

function addition() {
    $GLOBALS['z'] = $GLOBALS['x'] + $GLOBALS['y'];
}

addition();
echo $z;
?>
```

Tampilan

100

Variabel \$_SERVER pada PHP

- \$_SERVER adalah variabel super global PHP untuk mendapatkan informasi header, paths dan lokasi script

```
<?php
echo $_SERVER['PHP_SELF'];
echo "<br>";
echo $_SERVER['SERVER_NAME'];
echo "<br>";
echo $_SERVER['HTTP_HOST'];
echo "<br>";
echo $_SERVER['HTTP_REFERER'];
echo "<br>";
echo $_SERVER['HTTP_USER_AGENT'];
echo "<br>";
echo $_SERVER['SCRIPT_NAME'];
?>
```

Tampilan

```
/pemrograman_internet/php/variable-server.php
localhost
localhost
http://localhost/pemrograman_internet/php/
Mozilla/5.0 (Windows NT 6.1; WOW64; rv:32.0) Gecko/20100101 Firefox/32.0
/pemrograman_internet/php/variable-server.php
```


Variabel \$_SERVER penting

Element/Code	Description
\$_SERVER['PHP_SELF']	Returns the filename of the currently executing script
\$_SERVER['GATEWAY_INTERFACE']	Returns the version of the Common Gateway Interface (CGI) the server is using
\$_SERVER['SERVER_ADDR']	Returns the IP address of the host server
\$_SERVER['SERVER_NAME']	Returns the name of the host server (such as www.w3schools.com)
\$_SERVER['SERVER_SOFTWARE']	Returns the server identification string (such as Apache/2.2.24)
\$_SERVER['SERVER_PROTOCOL']	Returns the name and revision of the information protocol (such as HTTP/1.1)
\$_SERVER['REQUEST_METHOD']	Returns the request method used to access the page (such as POST)
\$_SERVER['REQUEST_TIME']	Returns the timestamp of the start of the request (such as 1377687496)
\$_SERVER['QUERY_STRING']	Returns the query string if the page is accessed via a query string
\$_SERVER['HTTP_ACCEPT']	Returns the Accept header from the current request
\$_SERVER['HTTP_ACCEPT_CHARSET']	Returns the Accept_Charset header from the current request (such as utf-8,ISO-8859-1)
\$_SERVER['HTTP_HOST']	Returns the Host header from the current request
\$_SERVER['HTTP_REFERER']	Returns the complete URL of the current page (not reliable because not all user-agents support it)
\$_SERVER['HTTPS']	Is the script queried through a secure HTTP protocol
\$_SERVER['REMOTE_ADDR']	Returns the IP address from where the user is viewing the current page
\$_SERVER['REMOTE_HOST']	Returns the Host name from where the user is viewing the current page
\$_SERVER['REMOTE_PORT']	Returns the port being used on the user's machine to communicate with the web server
\$_SERVER['SCRIPT_FILENAME']	Returns the absolute pathname of the currently executing script
\$_SERVER['SERVER_ADMIN']	Returns the value given to the SERVER_ADMIN directive in the web server configuration file (if your script runs on a virtual host, it will be the value defined for that virtual host) (such as someone@w3schools.com)
\$_SERVER['SERVER_PORT']	Returns the port on the server machine being used by the web server for communication (such as 80)
\$_SERVER['SERVER_SIGNATURE']	Returns the server version and virtual host name which are added to server-generated pages
\$_SERVER['PATH_TRANSLATED']	Returns the file system based path to the current script
\$_SERVER['SCRIPT_NAME']	Returns the path of the current script
\$_SERVER['SCRIPT_URI']	Returns the URI of the current page

Penanganan Form

- \$_GET adalah variabel array yang melewati data script pada parameter URL

```
<form action="welcome_get.php" method="get">  
Name: <input type="text" name="name"><br>  
E-mail: <input type="text" name="email"><br>  
<input type="submit">  
</form>
```

welcome_get.php

```
Welcome <?php echo $_GET["name"]; ?><br>  
Your email address is: <?php echo $_GET["email"]; ?>
```

Tampilan

Name:

E-mail:



← → ↻ localhost/pemrograman_internet/php/welcome_get.php?name=Aji+Firmansyah&email=aji.firman%40gmail.com

Welcome Aji Firmansyah
Your email address is: aji.firman@gmail.com

Penanganan Form

- \$_GET adalah variabel array yang melewati data script melalui method HTTP POST

```
<form action="welcome.php" method="post">  
Name: <input type="text" name="name"><br>  
E-mail: <input type="text" name="email"><br>  
<input type="submit">  
</form>
```

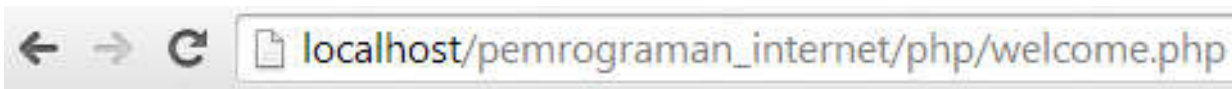
welcome.php

```
Welcome <?php echo $_POST["name"]; ?><br>  
Your email address is: <?php echo $_POST["email"]; ?>
```

Tampilan

Name:

E-mail:



Welcome Aji Firmansyah
Your email address is: aji.firman@gmail.com

GET VS POST

- Informasi yang dikirim dari form dengan method GET adalah **dapat terlihat** (nama dan nilai variable ditampilkan pada URL)
- GET mempunyai batasan jumlah jumlah informasi yang dikirim → 2000 karakter
- Karena variabel ditampilkan pada URL, kemungkinan dapat digunakan untuk bookmark halaman
- GET digunakan untuk mengirim data non-sensitive

GET VS POST

- Informasi yang dikirim dari form dengan method POST adalah **tidak dapat terlihat** (semua nama dan nilai variabel di-embedkan pada body HTTP request)
- POST tidak mempunyai batasan jumlah informasi yang dikirim
- POST mendukung masukan multi-part binary saat upload file ke server
- Karena variabel tidak ditampilkan pada URL, maka tidak mungkin untuk bookmark halaman

Validasi Form - PHP

```
<?php
// define variables and set to empty values
$name = $email = $gender = $comment = $website = "";

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    $name = test_input($_POST["name"]);
    $email = test_input($_POST["email"]);
    $website = test_input($_POST["website"]);
    $comment = test_input($_POST["comment"]);
    $gender = test_input($_POST["gender"]);
}

function test_input($data) {
    $data = trim($data);
    $data = stripslashes($data);
    $data = htmlspecialchars($data);
    return $data;
}
?>

<h2>PHP Form Validation Example</h2>
<form method="post" action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>">
    Name: <input type="text" name="name">
    <br><br>
    E-mail: <input type="text" name="email">
    <br><br>
    Website: <input type="text" name="website">
    <br><br>
    Comment: <textarea name="comment" rows="5" cols="40"></textarea>
    <br><br>
    Gender:
    <input type="radio" name="gender" value="female">Female
    <input type="radio" name="gender" value="male">Male
    <br><br>
    <input type="submit" name="submit" value="Submit">
</form>
```



Mendefinisikan variabel dan
menguji data masukan



Menampilkan form

Validasi Form - PHP

```
<?php
echo "<h2>Your Input:</h2>";
echo $name;
echo "<br>";
echo $email;
echo "<br>";
echo $website;
echo "<br>";
echo $comment;
echo "<br>";
echo $gender;
?>
```



Menampilkan data masukan

Validasi Form - PHP

Tampilan

PHP Form Validation Example

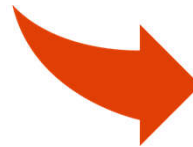
Name:

E-mail:

Website:

Comment:

Gender: Female Male



Your Input:

Aji Firmansyah
aji.firman@gmail.com
www.aji-firman.net
Belajar validasi form
male

Validasi Form - PHP

- Fungsi **trim()** → untuk menghapus spasi di kanan dan kiri text
- Fungsi **stripslashes()** → untuk membuang karakter escape → karakter backslash “\”
- Fungsi **htmlspecialchars()** → untuk menonaktifkan seluruh perintah-perintah html → mempertahankan penulisan HTML pada sebuah tampilan HTML

Validasi Form - PHP

Tampilan

PHP Form Validation Example

Name:

E-mail:

Website:

Comment:

Gender: Female Male



Your Input:

Aji Firmansyah
aji.firman@gmail.com
www.aji-firman.net
Belajar validasi form
male

Validasi Form - PHP

Tampilan

PHP Form Validation Example

Name:

E-mail:

Website:

Comment:

Gender: Female Male



Your Input:

Aji Firmansyah
aji.firman@gmail.com
www.aji-firman.net
Belajar validasi form
male

Validasi Form - PHP

Tampilan

PHP Form Validation Example

Name:

E-mail:

Website:

Comment:

Gender: Female Male



Your Input:

Aji Firmansyah
aji.firman@gmail.com
www.aji-firman.net
Belajar sintak HTML Test
male

Validasi Form - PHP

Tampilan

PHP Form Validation Example

Name:

E-mail:

Website:

Comment:

Gender: Female Male



Tanpa htmlspecialchars()

```
function test_input($data) {  
    $data = trim($data);  
    $data = stripslashes($data);  
    // $data = htmlspecialchars($data);  
    return $data;  
}
```



Your Input:

Aji Firmansyah
aji.firman@gmail.com
www.aji-firman.net
Belajar sintak HTML [Test](#)
male

Validasi Form → Required Field

```
<style>
.error {color: #FF0000;}
</style>
```



Mendefinisikan warna yang digunakan saat error

```
<?php
// define variables and set to empty values
$nameErr = $emailErr = $genderErr = $websiteErr = "";
$name = $email = $gender = $comment = $website = "";

if ($_SERVER["REQUEST_METHOD"] == "POST") {
    if (empty($_POST["name"])) {
        $nameErr = "Name is required";
    } else {
        $name = test_input($_POST["name"]);
    }

    if (empty($_POST["email"])) {
        $emailErr = "Email is required";
    } else {
        $email = test_input($_POST["email"]);
    }

    if (empty($_POST["website"])) {
        $website = "";
    } else {
        $website = test_input($_POST["website"]);
    }

    if (empty($_POST["comment"])) {
        $comment = "";
    } else {
        $comment = test_input($_POST["comment"]);
    }
}
```



Mendefinisikan variabel dan menentukan nilai yang kosong

Validasi Form → Required Field

```
}  
  
if (empty($_POST["gender"])) {  
    $genderErr = "Gender is required";  
} else {  
    $gender = test_input($_POST["gender"]);  
}  
}  
  
function test_input($data) {  
    $data = trim($data);  
    $data = stripslashes($data);  
    $data = htmlspecialchars($data);  
    return $data;  
}  
?>
```

Validasi Form → Required Field

```
<h2>PHP Form Validation Example</h2>
<p><span class="error">* required field.</span></p>
<form method="post" action="<?php echo htmlspecialchars($_SERVER["PHP_SELF"]);?>">
  Name: <input type="text" name="name">
  <span class="error">* <?php echo $nameErr;?></span>
  <br><br>
  E-mail: <input type="text" name="email">
  <span class="error">* <?php echo $emailErr;?></span>
  <br><br>
  Website: <input type="text" name="website">
  <span class="error"><?php echo $websiteErr;?></span>
  <br><br>
  Comment: <textarea name="comment" rows="5" cols="40"></textarea>
  <br><br>
  Gender:
  <input type="radio" name="gender" value="female">Female
  <input type="radio" name="gender" value="male">Male
  <span class="error">* <?php echo $genderErr;?></span>
  <br><br>
  <input type="submit" name="submit" value="Submit">
</form>

<?php
echo "<h2>Your Input:</h2>";
echo $name;
echo "<br>";
echo $email;
echo "<br>";
echo $website;
echo "<br>";
echo $comment;
echo "<br>";
echo $gender;
?>
```



Menampilkan form



Menampilkan data masukan

Validasi Form → Required Field

PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Gender: Female Male *



PHP Form Validation Example

* required field.

Name: * Name is required

E-mail: * Email is required

Website:

Comment:

Gender: Female Male * Gender is required

Your Input:

www.aji-firman.net
Belajar validasi form

Validasi Form → Nama, E-mail, URL, Komentar, Jenis kelamin

- Script validasi nama

```
if (empty($_POST["name"])) {  
    $nameErr = "Name is required";  
} else {  
    $name = test_input($_POST["name"]);  
    // check if name only contains letters and whitespace  
    if (!preg_match("/^[a-zA-Z ]*$/", $name)) {  
        $nameErr = "Only letters and white space allowed";  
    }  
}
```

- Script validasi e-mail

```
if (empty($_POST["email"])) {  
    $emailErr = "Email is required";  
} else {  
    $email = test_input($_POST["email"]);  
    // check if e-mail address is well-formed  
    if (!filter_var($email, FILTER_VALIDATE_EMAIL)) {  
        $emailErr = "Invalid email format";  
    }  
}
```

Validasi Form → Nama, E-mail, URL, Komentar, Jenis kelamin

- Script validasi URL/website

```
if (empty($_POST["website"])) {
    $website = "";
} else {
    $website = test_input($_POST["website"]);
    // check if URL address syntax is valid (this regular expression also allows dashes in the URL)
    if (!preg_match("/\b(?:?:https?|ftp):\/\/|www\.)[-a-z0-9+&@#\/%?~_!:\.,;]*[-a-z0-9+&@#\/%?~_!]/i",$website)) {
        $websiteErr = "Invalid URL";
    }
}
```

- Script validasi komentar

```
if (empty($_POST["comment"])) {
    $comment = "";
} else {
    $comment = test_input($_POST["comment"]);
}
```

- Script validasi jenis kelamin

```
if (empty($_POST["gender"])) {
    $genderErr = "Gender is required";
} else {
    $gender = test_input($_POST["gender"]);
}
```

Validasi Form → Complete (Required field)

PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Gender: Female Male *



PHP Form Validation Example

* required field.

Name: * Name is required

E-mail: * Email is required

Website:

Comment:

Gender: Female Male * Gender is required

Validasi Form → Complete (Nama)

PHP Form Validation Example

* required field.

Name: * Only letters and white space allowed

E-mail: * Email is required

Website:

Comment:

Gender: Female Male * Gender is required



PHP Form Validation Example

* required field.

Name: *

E-mail: * Email is required

Website:

Comment:

Gender: Female Male * Gender is required

Validasi Form → Complete (Nama)

PHP Form Validation Example

* required field.

Name: * Only letters and white space allowed

E-mail: * Email is required

Website:

Comment:

Gender: Female Male * Gender is required



PHP Form Validation Example

* required field.

Name: *

E-mail: * Invalid email format

Website:

Comment:

Gender: Female Male * Gender is required

Validasi Form → Complete (E-mail)

PHP Form Validation Example

* required field.

Name: *

E-mail: * Invalid email format

Website:

Comment:

Gender: Female Male * Gender is required



PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Gender: Female Male * Gender is required

Validasi Form → Complete (URL/website)

PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website: Invalid URL

Comment:

Gender: Female Male * Gender is required



PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Gender: Female Male * Gender is required

Validasi Form → Complete (Komentari)

PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Gender: Female Male * Gender is required



PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Gender: Female Male * Gender is required

Your Input:

Aji Firmansyah
aji.firman@gmail.com
http://aji-firman.net
Belajar validasi form

Validasi Form → Complete (Jenis Kelamin)

PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Belajar form validasi

Gender: Female Male * Gender is required



PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Belajar form validasi

Gender: Female Male *

Include File - PHP

footer.php

```
<?php  
echo "<p>Copyright &copy; 2013-" . date("Y") . " www.aji-firman.net</p>";  
?>
```

Main program

```
<h1>Welcome to my home page!</h1>  
<p>Some text.</p>  
<p>Some more text.</p>  
<?php include 'footer.php';?>
```

Tampilan

Welcome to my home page!

Some text.

Some more text.

Copyright © 2013-2014 www.aji-firman.net

Include File – Akses Variabel

variabel.php

```
<?php  
$color='red';  
$car='BMW';  
?>
```

Main program

```
<h1>Welcome to my home page!</h1>  
<?php include 'variabel.php';  
echo "I have a $color $car."  
?>
```

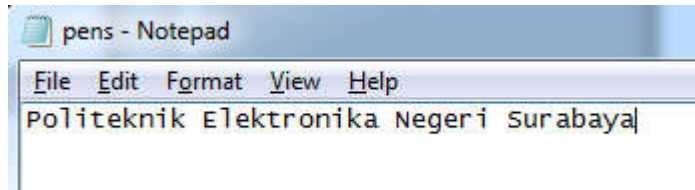
Tampilan

Welcome to my home page!

I have a red BMW.

Buka dan Baca File - PHP

pens.txt



```
<?php
$myfile = fopen("pens.txt", "r") or die("Unable to open file!");
echo fread($myfile, filesize("pens.txt"));
fclose($myfile);
?>
```

Tampilan



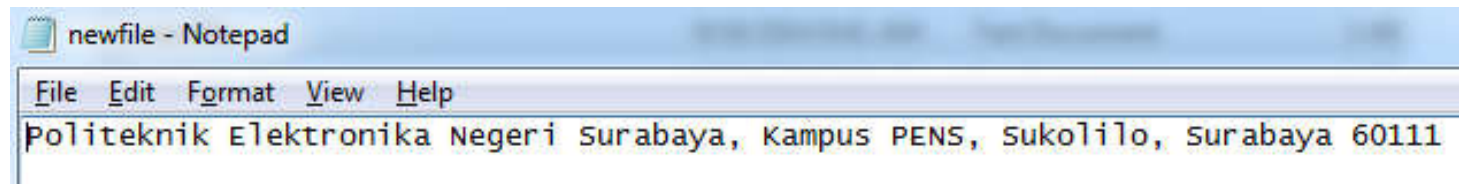
Beberapa mode untuk membaca file

Modes	Description
r	Open a file for read only. File pointer starts at the beginning of the file
w	Open a file for write only. Erases the contents of the file or creates a new file if it doesn't exist. File pointer starts at the beginning of the file
a	Open a file for write only. The existing data in file is preserved. File pointer starts at the end of the file. Creates a new file if the file doesn't exist
x	Creates a new file for write only. Returns FALSE and an error if file already exists
r+	Open a file for read/write. File pointer starts at the beginning of the file
w+	Open a file for read/write. Erases the contents of the file or creates a new file if it doesn't exist. File pointer starts at the beginning of the file
a+	Open a file for read/write. The existing data in file is preserved. File pointer starts at the end of the file. Creates a new file if the file doesn't exist
x+	Creates a new file for read/write. Returns FALSE and an error if file already exists

Create File

```
<?php
$myfile = fopen("newfile.txt", "w") or die("Unable to open file!");
$txt = "Politeknik Elektronika Negeri Surabaya, ";
fwrite($myfile, $txt);
$txt = "Kampus PENS, Sukolilo, Surabaya 60111";
fwrite($myfile, $txt);
fclose($myfile);
?>
```

Tampilan



Upload File

```
<form action="upload_file.php" method="post"
enctype="multipart/form-data">
<label for="file">Filename:</label>
<input type="file" name="file" id="file"><br>
<input type="submit" name="submit" value="Submit">
</form>
```

Filename: pens.txt

upload_file.php

```
<?php
if ($_FILES["file"]["error"] > 0) {
    echo "Error: " . $_FILES["file"]["error"] . "<br>";
} else {
    echo "Upload: " . $_FILES["file"]["name"] . "<br>";
    echo "Type: " . $_FILES["file"]["type"] . "<br>";
    echo "Size: " . ($_FILES["file"]["size"] / 1024) . " kB<br>";
    echo "Stored in: " . $_FILES["file"]["tmp_name"];
}
?>
```



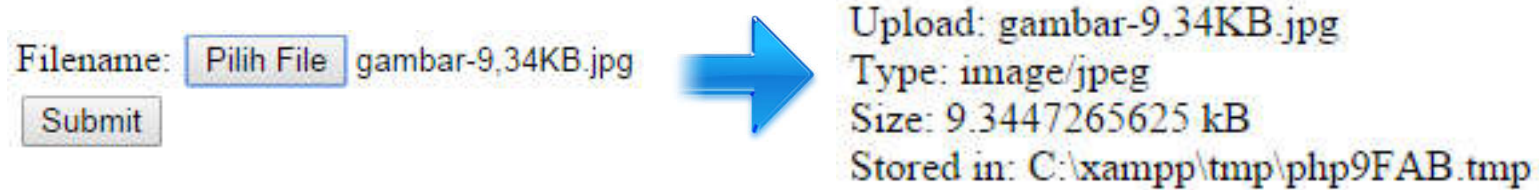
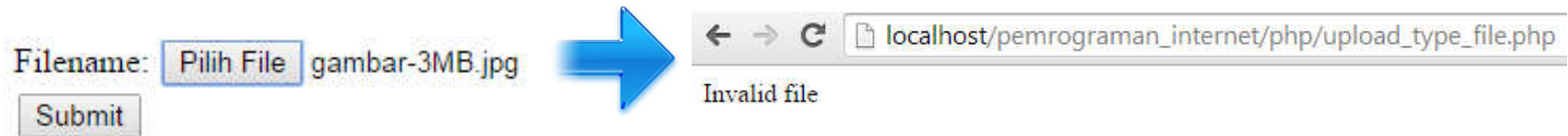
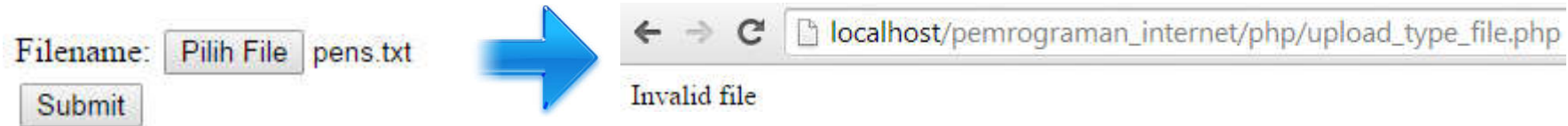
Upload: pens.txt
Type: text/plain
Size: 0.037109375 kB
Stored in: C:\xampp\tmp\phpA40B.tmp

Upload – Dibatasi Tipe dan Ukuran File

```
<?php
$allowedExts = array("gif", "jpeg", "jpg", "png");
$tmp = explode(".", $_FILES["file"]["name"]);
$extension = end($tmp);

if ((($_FILES["file"]["type"] == "image/gif")
|| ($_FILES["file"]["type"] == "image/jpeg")
|| ($_FILES["file"]["type"] == "image/jpg")
|| ($_FILES["file"]["type"] == "image/pjpeg")
|| ($_FILES["file"]["type"] == "image/x-png")
|| ($_FILES["file"]["type"] == "image/png"))
&& ($_FILES["file"]["size"] < 20000)
&& in_array($extension, $allowedExts)) {
    if ($_FILES["file"]["error"] > 0) {
        echo "Error: " . $_FILES["file"]["error"] . "<br>";
    } else {
        echo "Upload: " . $_FILES["file"]["name"] . "<br>";
        echo "Type: " . $_FILES["file"]["type"] . "<br>";
        echo "Size: " . ($_FILES["file"]["size"] / 1024) . " kB<br>";
        echo "Stored in: " . $_FILES["file"]["tmp_name"];
    }
} else {
    echo "Invalid file";
}
?>
```

Upload - Dibatasi Tipe dan Ukuran File



Simpan File Upload

```
<?php
$allowedExts = array("gif", "jpeg", "jpg", "png");
$tmp = explode(".", $_FILES["file"]["name"]);
$extension = end($tmp);

if ((($_FILES["file"]["type"] == "image/gif")
|| ($_FILES["file"]["type"] == "image/jpeg")
|| ($_FILES["file"]["type"] == "image/jpg")
|| ($_FILES["file"]["type"] == "image/pjpeg")
|| ($_FILES["file"]["type"] == "image/x-png")
|| ($_FILES["file"]["type"] == "image/png"))
&& ($_FILES["file"]["size"] < 20000)
&& in_array($extension, $allowedExts)) {
    if ($_FILES["file"]["error"] > 0) {
        echo "Return Code: " . $_FILES["file"]["error"] . "<br>";
    } else {
        echo "Upload: " . $_FILES["file"]["name"] . "<br>";
        echo "Type: " . $_FILES["file"]["type"] . "<br>";
        echo "Size: " . ($_FILES["file"]["size"] / 1024) . " kB<br>";
        echo "Temp file: " . $_FILES["file"]["tmp_name"] . "<br>";
        if (file_exists("upload/" . $_FILES["file"]["name"])) {
            echo $_FILES["file"]["name"] . " already exists. ";
        } else {
            move_uploaded_file($_FILES["file"]["tmp_name"],
            "upload/" . $_FILES["file"]["name"]);
            echo "Stored in: " . "upload/" . $_FILES["file"]["name"];
        }
    }
} else {
    echo "Invalid file";
}
?>
```



Buat dulu folder upload pada direktori aktif

Simpan File Upload

Filename: gambar-9,34KB.jpg

Upload: gambar-9,34KB.jpg

Type: image/jpeg

Size: 9.3447265625 kB

Temp file: C:\xampp\tmp\php153B.tmp

Stored in: upload/gambar-9,34KB.jpg

