# Lecture 5.2
# PHP Super Global variables
# $_COOKIE, $_Session, $_File

**Course Instructor**

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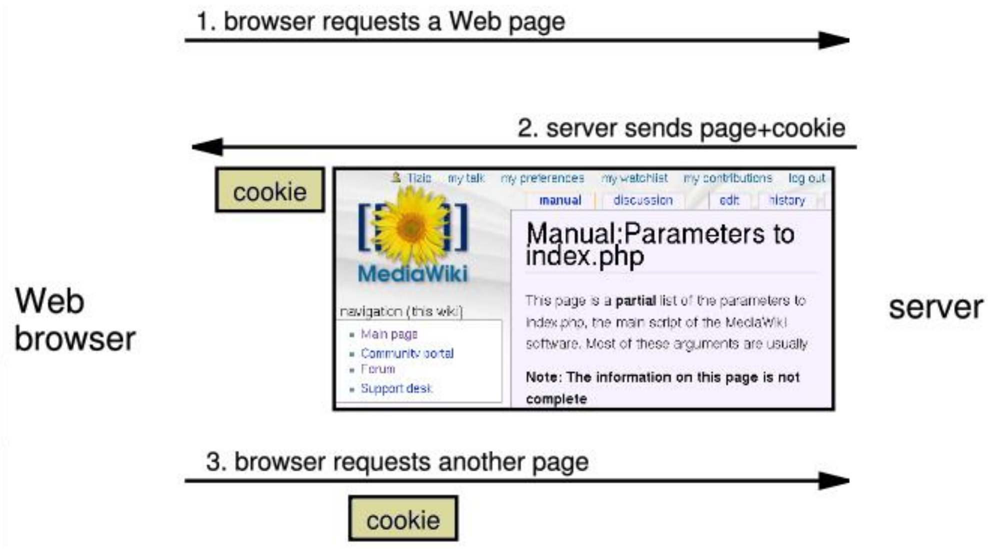
## Cookie

- Cookie is a small amount of information sent by a server to a browser, and then sent back by the browser on future page requests.
- Cookies have many uses:
    - authentication
    - user tracking
    - maintaining user preferences, shopping carts, etc.
- A cookie's data consists of a single name/value pair, sent in the header of the client's HTTP GET or POST request.

# How cookies are sent?

- when the browser requests a page, the server may send back a cookie(s) with it.
- If your server has previously sent any cookies to the browser, the browser will send them back on subsequent requests.


1. browser requests a Web page
2. server sends page+cookie
cookie
Web browser
server
Manual:Parameters to index.php
MediaWiki
3. browser requests another page
cookie

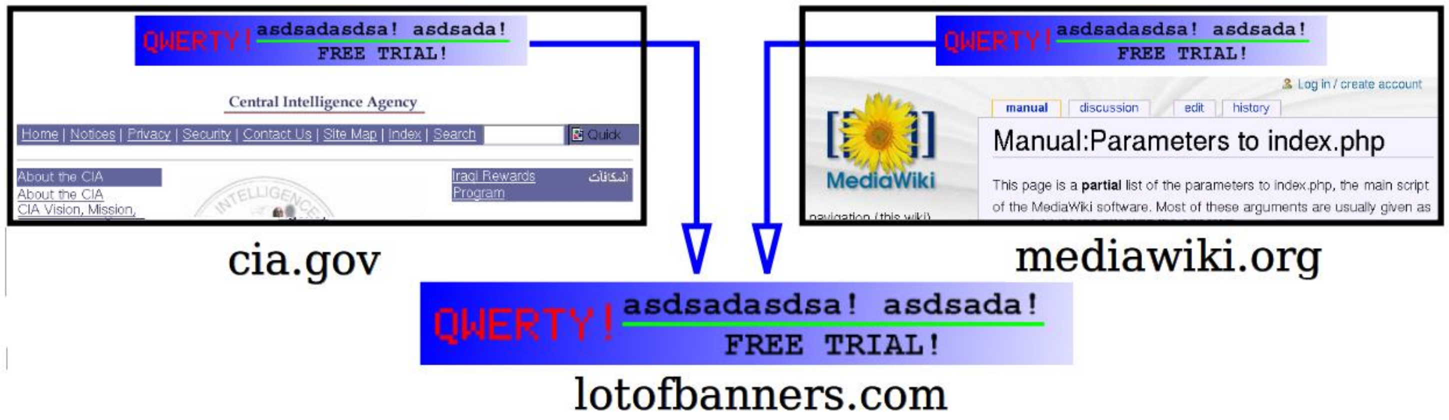
## How long does a Cookie exist?

- **session cookie** : the default type; a temporary cookie that is stored only in the browser's memory.
  - when the browser is closed, temporary cookies will be erased
  - can not be used for tracking long-term information
  - safer, because no programs other than the browser can access them.
- **persistent cookie** : one that is stored in a file on the browser's computer.
  - can track long-term information
  - potentially less secure, because users (or programs they run) can open cookie files, see/change the cookie values, etc.

## Myths about cookies

- **Myths:**
  - Cookies are like worms/viruses and can erase data from the user's hard disk.
  - Cookies are a form of spyware and can steal your personal information.
  - Cookies generate popups and spam.
  - Cookies are only used for advertising.
- **Facts:**
  - Cookies are only data, not program code.
  - Cookies cannot erase or read information from the user's computer.
  - Cookies are usually anonymous (do not contain personal information).
  - Cookies CAN be used to track your viewing habits on a particular site.

# A "tracking cookie"


QWERTY! asdsadasdsa! asdsada! FREE TRIAL!
Central Intelligence Agency
Home | Notices | Privacy | Security | Contact Us | Site Map | Index | Search
About the CIA
Iraqi Rewards Program
cia.gov
MediaWiki
Manual:Parameters to index.php
mediawiki.org
QWERTY! asdsadasdsa! asdsada! FREE TRIAL!
lotofbanners.com

- An advertising company can put a cookie on your machine when you visit one site, and see it when you visit another site that also uses that advertising company.
- Therefore they can tell that the same person (you) visited both sites.
- Can be prevented by telling your browser not to accept "third-party cookies“.

# Cookie Components

- Here’s an example of an HTTP header to create a cookie:
- Set-Cookie: fontSize=3; expires=Tuesday, 6-Jan-2019 17:53:08 GMT; path=/; domain=.example.com; HttpOnly

## Setting a Cookie in PHP

- PHP provides a built-in function, setcookie() to send a cookie to the browser from PHP script.
- Examples:
- setcookie( “fontSize”, 3, time() + 60 * 60 * 24 * 365, “/”, “.example.com”, false, true );

## Setting a Cookie in PHP

- setcookie( “pageViews”, 7, 0, “/”, “”, false, true );
- You can also update an existing cookie.
- You need to supply the path and expires arguments when updating the cookie: setcookie( “pageViews”, 8, 0, “/”, “”, false, true );

## Accessing Cookies in Your Scripts

- The PHP $_COOKIE super global variable is used to retrieve a cookie value.
- So to display the pageViews cookie set in the previous example, you could use:
- echo $_COOKIE[“pageViews”];

## Removing Cookies

- Setting the cookie to FALSE erases it.
  - setcookie("name", FALSE);
  - setcookie("CouponNumber", FALSE);
- You can also set the cookie and pass in an expires argument that is in the past.
  - setcookie( “fontSize”, “”, time() - 3600, “/”, “.example.com”, false, true );
  - This example sets the fontSize cookie’s expiry time to one hour in the past, which effectively deletes it from the browser.

## Sessions in PHP

- A session is a temporary set of variables that exists only until the browser has shut down.
- The idea of session control is to be able to track a user during a single session on a website.
- Session in PHP is driven by a unique session ID.
- All the session data is stored as keys and values pairs in the $_SESSION superglobal array.

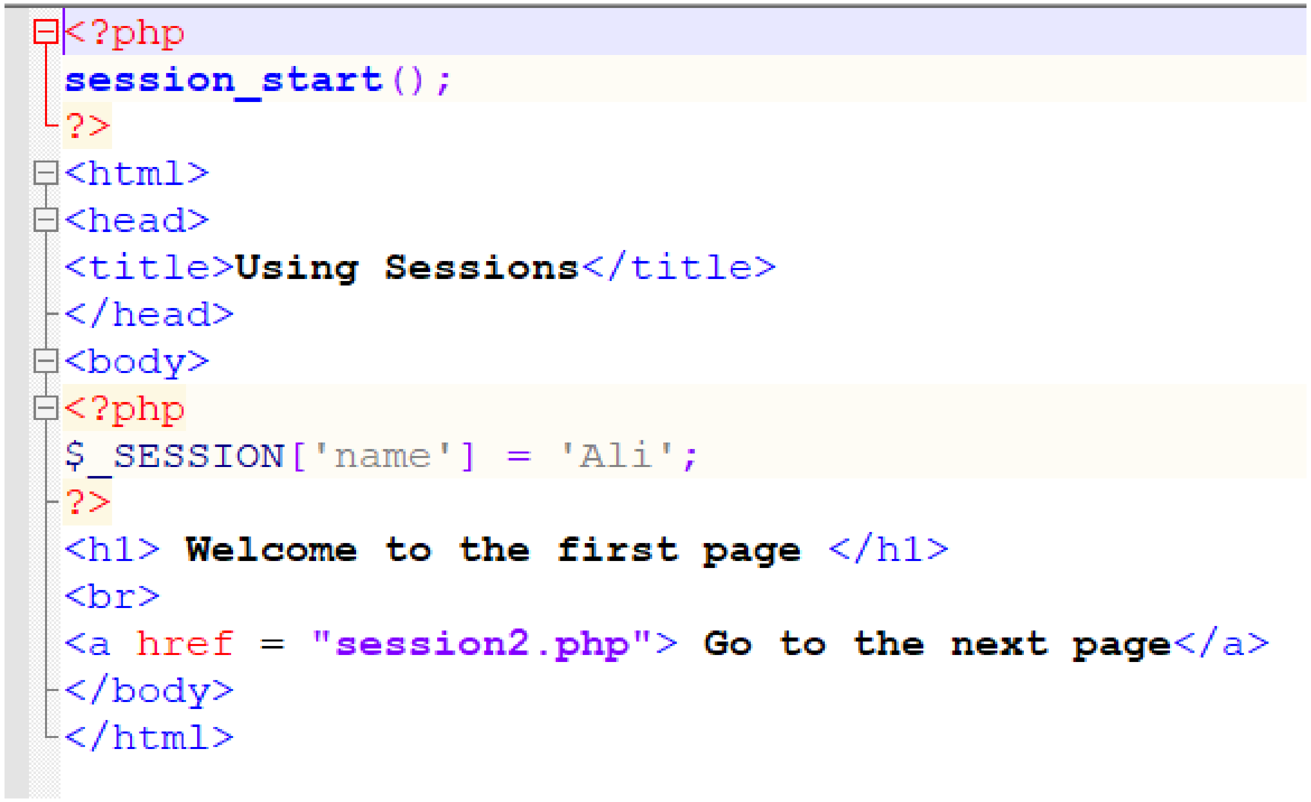
## Sessions in PHP

- Why do we need session?
- What are the pros of using Sessions over cookies?

## Sessions in PHP

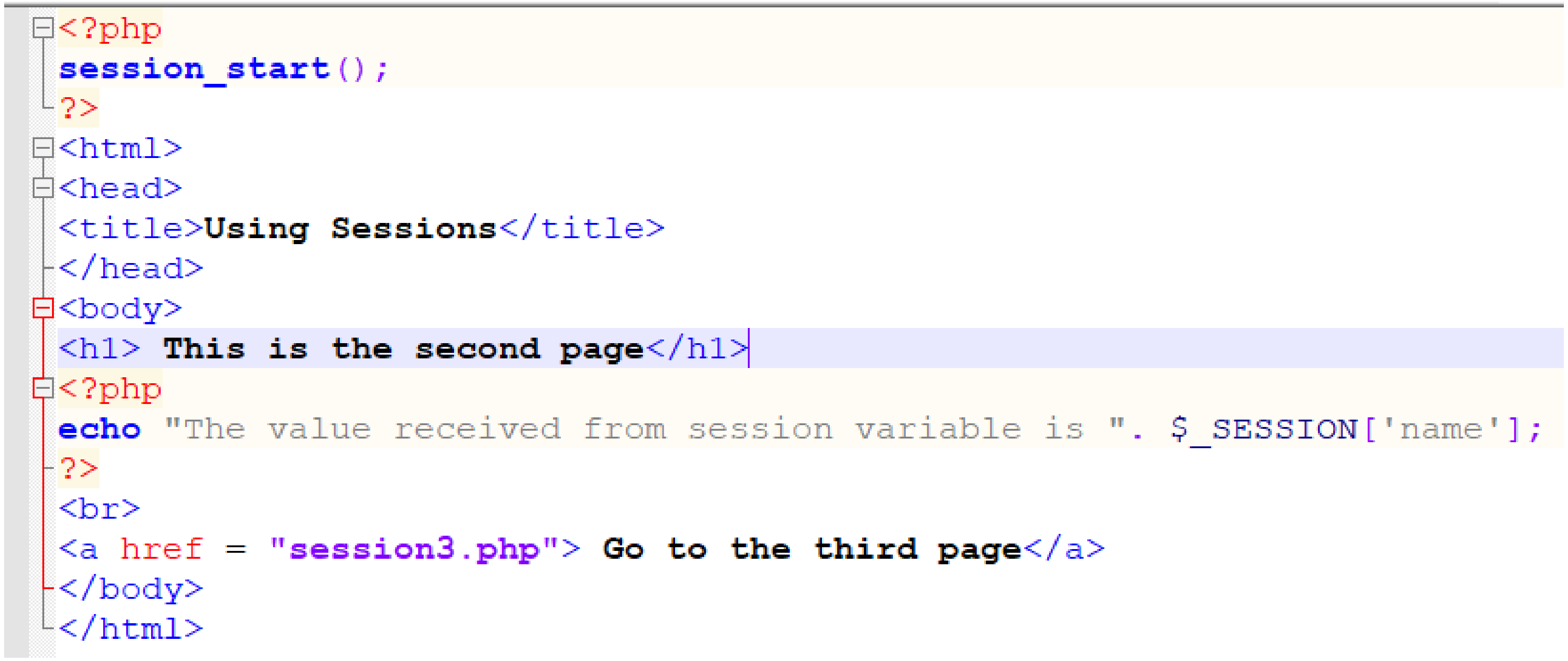
- session_start()- is used to start a session
- $_SESSION['variable_name']- is used to store data in session variable
- session_destroy()- is used to destroy a session
- unset($_SESSION['variable_name'])- is used to unset a specific variable

# Passing variables using sessions



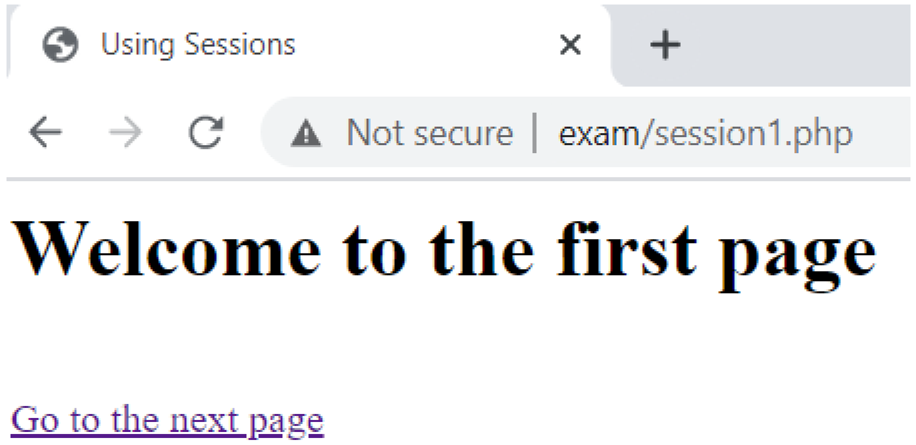
```
<?php
session_start();
?>
<html>
<head>
<title>Using Sessions</title>
</head>
<body>
<?php
$_SESSION['name'] = 'Ali';
?>
<h1> Welcome to the first page </h1>
<br>
<a href = "session2.php"> Go to the next page</a>
</body>
</html>
```

# Passing variables using sessions



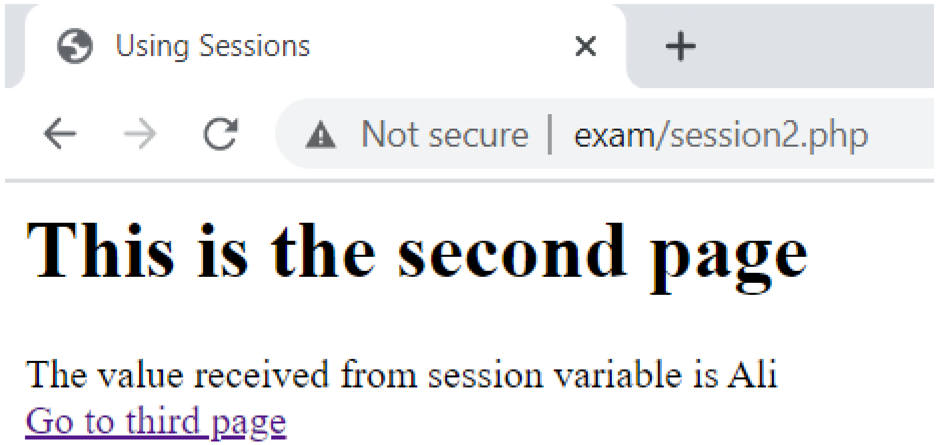
```
<?php
session_start();
?>
<html>
<head>
<title>Using Sessions</title>
</head>
<body>
<h1> This is the second page</h1>
<?php
echo "The value received from session variable is ". $_SESSION['name'];
?>
<br>
<a href = "session3.php"> Go to the third page</a>
</body>
</html>
```

# Passing variables using sessions



Welcome to the first page

Go to the next page



This is the second page

The value received from session variable is Ali
Go to third page

## Destroying a Session

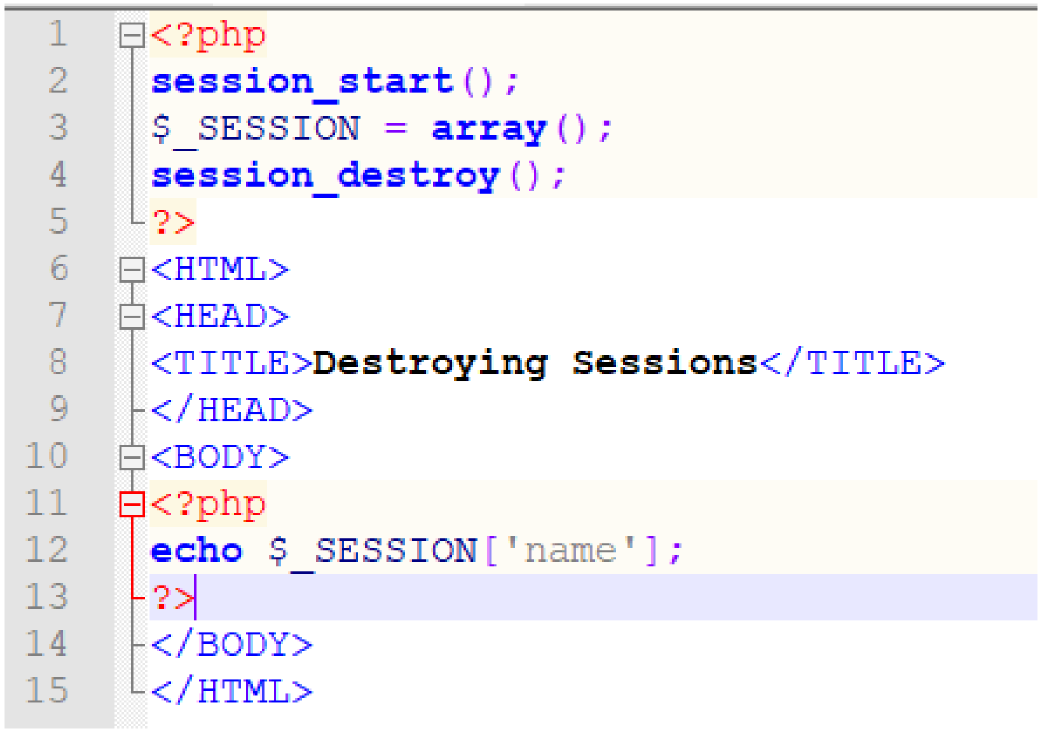
- session_destroy() merely erases the session data from the disk.
- The data is still in the $_SESSION array until the current execution of the script ends.
- To make sure all session has been erased, initialize the $_SESSION array:
- $_SESSION = array();
- session_destroy();

## Destroying a Session

- A trace of the session may still remains in the form of the PHPSESSID cookie in the user ’s browser.
- To make sure you have wiped the session from both the server and the browser, destroy the session cookie:

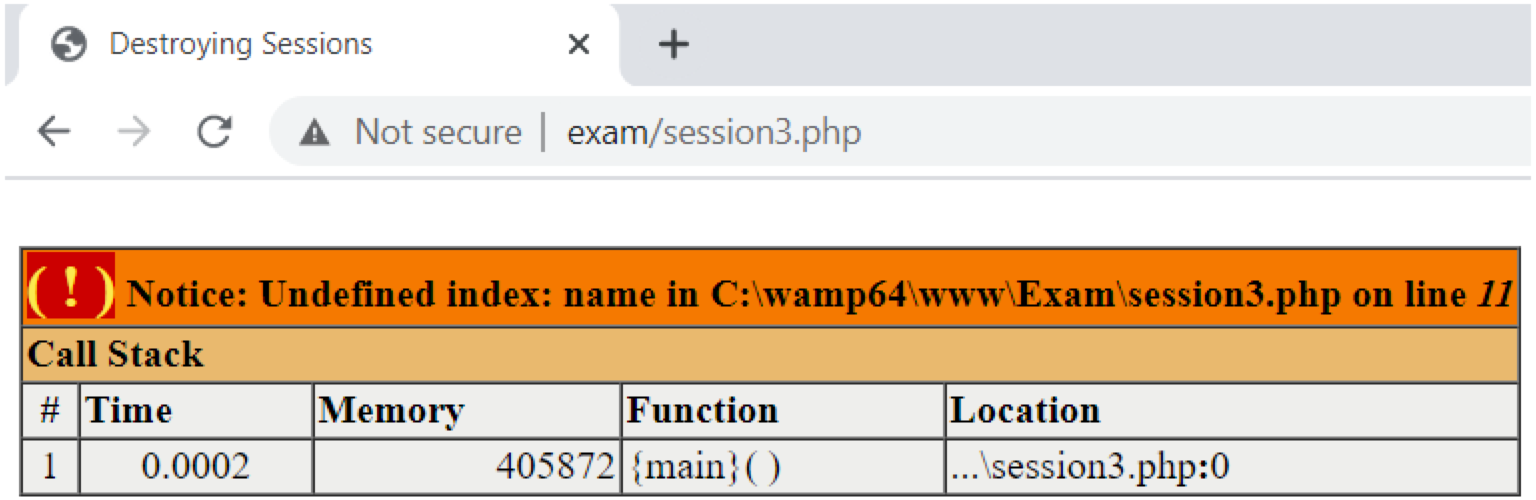
  – 
  ```
  if ( isset( $_COOKIE[session_name()] ) )
    {
    setcookie( session_name(), “”, time()-3600, “/” );
    }
    $_SESSION = array();
    session_destroy();
  ```

## Destroying a Session



```
<?php
session_start();
$_SESSION = array();
session_destroy();
?>
<HTML>
<HEAD>
<TITLE>Destroying Sessions</TITLE>
</HEAD>
<BODY>
<?php
echo $_SESSION['name'];
?>
</BODY>
</HTML>
```

## Destroying a Session



```
( ! ) Notice: Undefined index: name in C:\wamp64\www\Exam\session3.php on line 11
```

Call Stack

| # | Time | Memory | Function | Location |
|---|---|---|---|---|
| 1 | 0.0002 | 405872 | {main}( ) | ...\session3.php:0 |

## $_Server Super Global Variable

- Is used to get information from the server.
- $_SERVER[ “ PHP_SELF “ ]
- $_SERVER[ “ SCRIPT_FILENAME “ ]
- $_SERVER[“REMOTE_ADDR”]
- $_SERVER[ “ HTTP_USER_AGENT “ ]
- $_SERVER[ “ REQUEST_METHOD “ ]

- echo “Your IP address is: “ . $_SERVER[“REMOTE_ADDR”]; // displays the IP address of the visitor ’ s computer (or proxy server).

## $_FILES: super-global variable

- $_FILES: contains any item uploaded to the server when the post method is used.
- an array type variable
- Created automatically
- Can be accessed on other pages

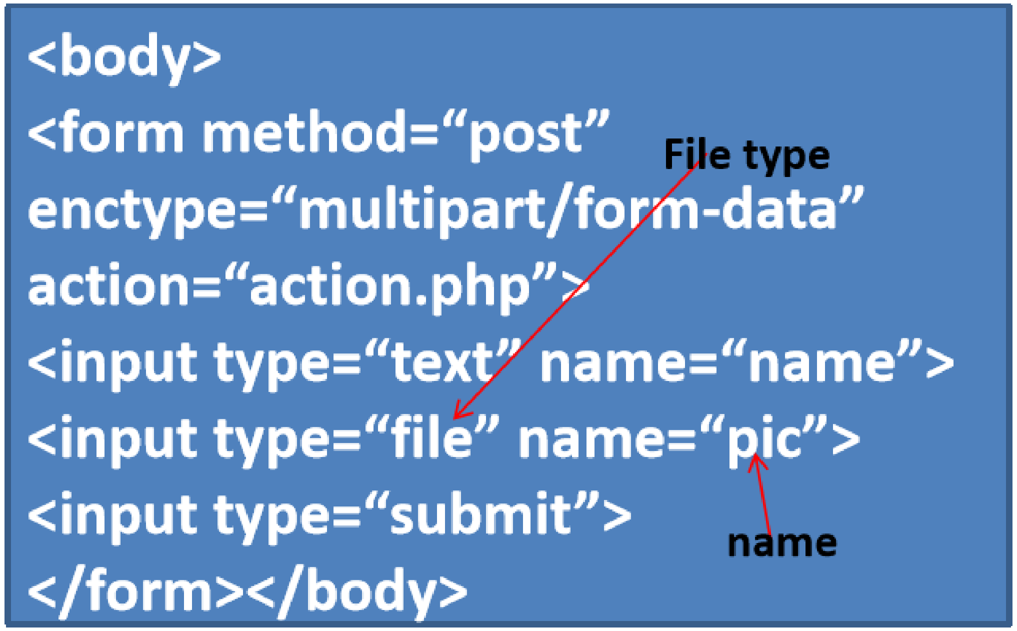
## $_FILES: super-global variable

- Keeps information about
- Name
- Size
- Type
- Tmp_name

## $_FILES: super-global variable

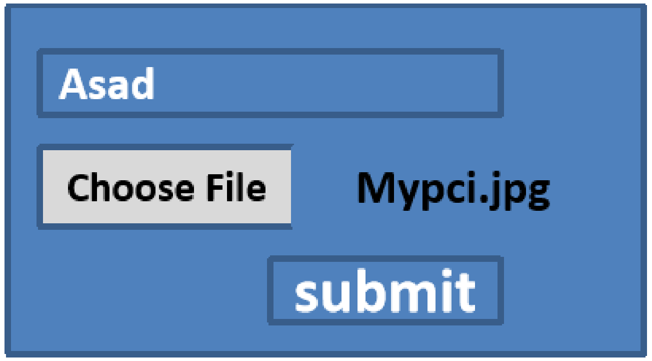
- FORM attributes required:
- Method should be post
- Enctype should be multipart/form-data
- <form enctype="multipart/form-data" method="post" action="upload.php">

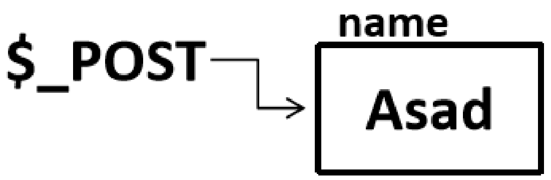
# $_FILES: super-global variable

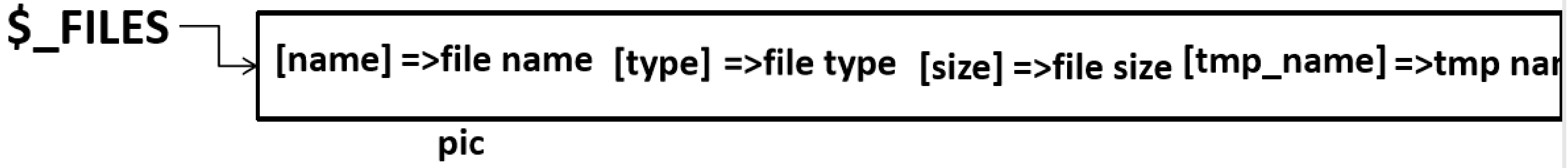


```
<body>
<form method="post"
enctype="multipart/form-data"
action="action.php">
<input type="text" name="name">
<input type="file" name="pic">
<input type="submit">
</form></body>
```

File type
name







$_FILES
[name] =>file name [type] =>file type [size] =>file size [tmp_name] =>tmp nar
pic

## $_FILES: super-global variable

- Accessing file information
  - $_FILES['input-field name']['name'];
  - $_FILES['pic']['name'];
  - $_FILES['input-field name']['type'];
  - $_FILES['pic']['type'];
  - $_FILES['input-field name']['size'];
  - $_FILES['pic']['size'];

## Connecting PHP with MySQL.

- mysqli_connect(“hostname” ,”username”, ”password”)
  - mysqli_connect(“localhost”,”root”,””)
- mysqli_select_db(“database name”)
  - mysqli_select_db(“testdatabase”)

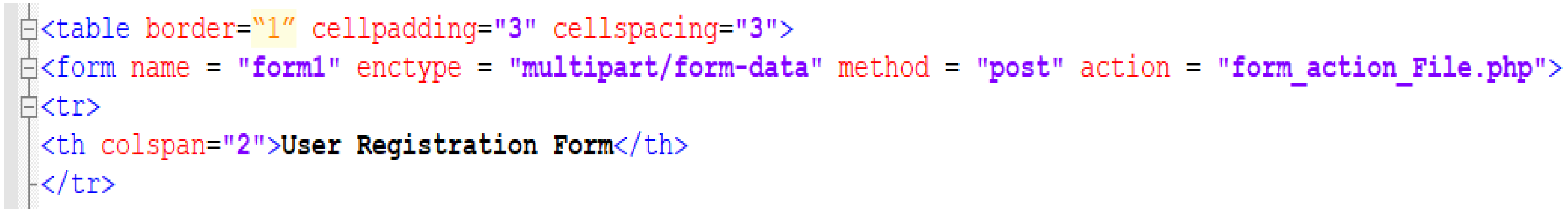
## Inserting data in database

- Create form to receive input from user
- On action page
  - Retrieve user’s input
  - Validate user’s input (optional)
  - Establish connection with database
  - Write insert command
  - Execute command

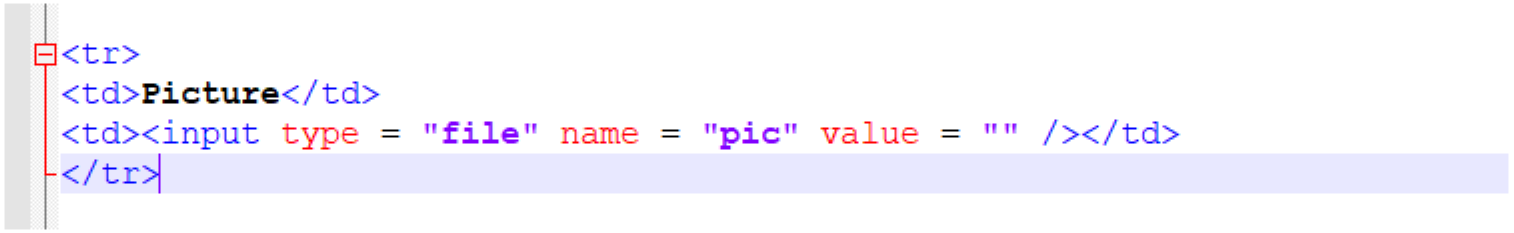
## Inserting data in database

- Insert SQL command:
- INSERT INTO `table_name` (list of columns) VALUES (list of values)
- INSERT INTO users (‘user_Name’,’user_Email’,’user_Password’) VALUES (‘$name’,’$email’,’$password’)
- mysqli_query(query to execute)

# $_FILES: super-global variable



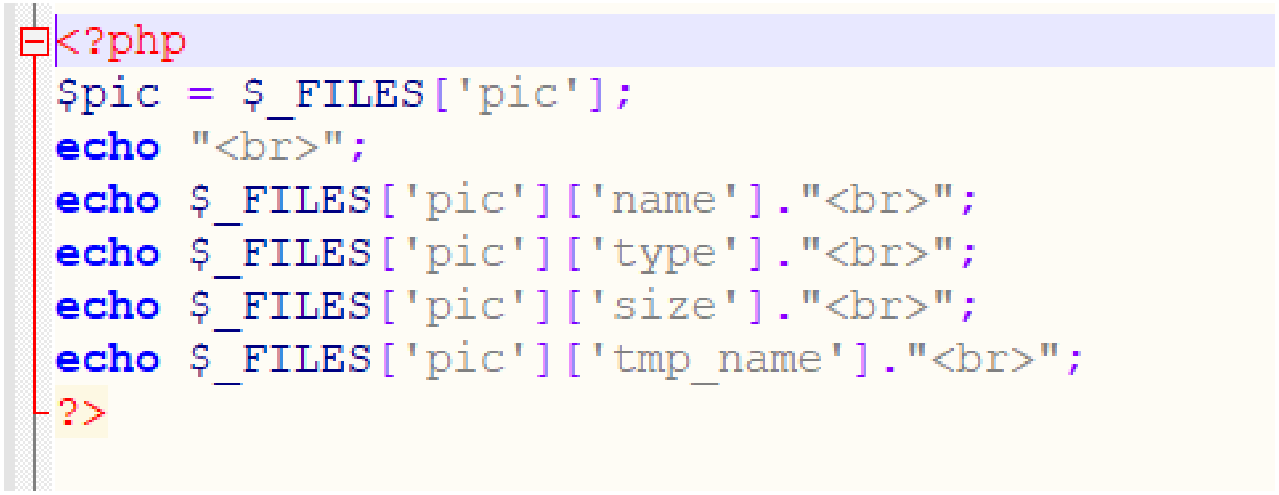
```
<table border="1" cellpadding="3" cellspacing="3">
<form name = "form1" enctype = "multipart/form-data" method = "post" action = "form_action_File.php">
<tr>
<th colspan="2">User Registration Form</th>
</tr>
```



```
<tr>
<td>Picture</td>
<td><input type = "file" name = "pic" value = "" /></td>
</tr>
```

# $_FILES: super-global variable

**form_Action_File.php:**



```php
<?php
$pic = $_FILES['pic'];
echo "<br>";
echo $_FILES['pic']['name']."<br>";
echo $_FILES['pic']['type']."<br>";
echo $_FILES['pic']['size']."<br>";
echo $_FILES['pic']['tmp_name']."<br>";
?>
```

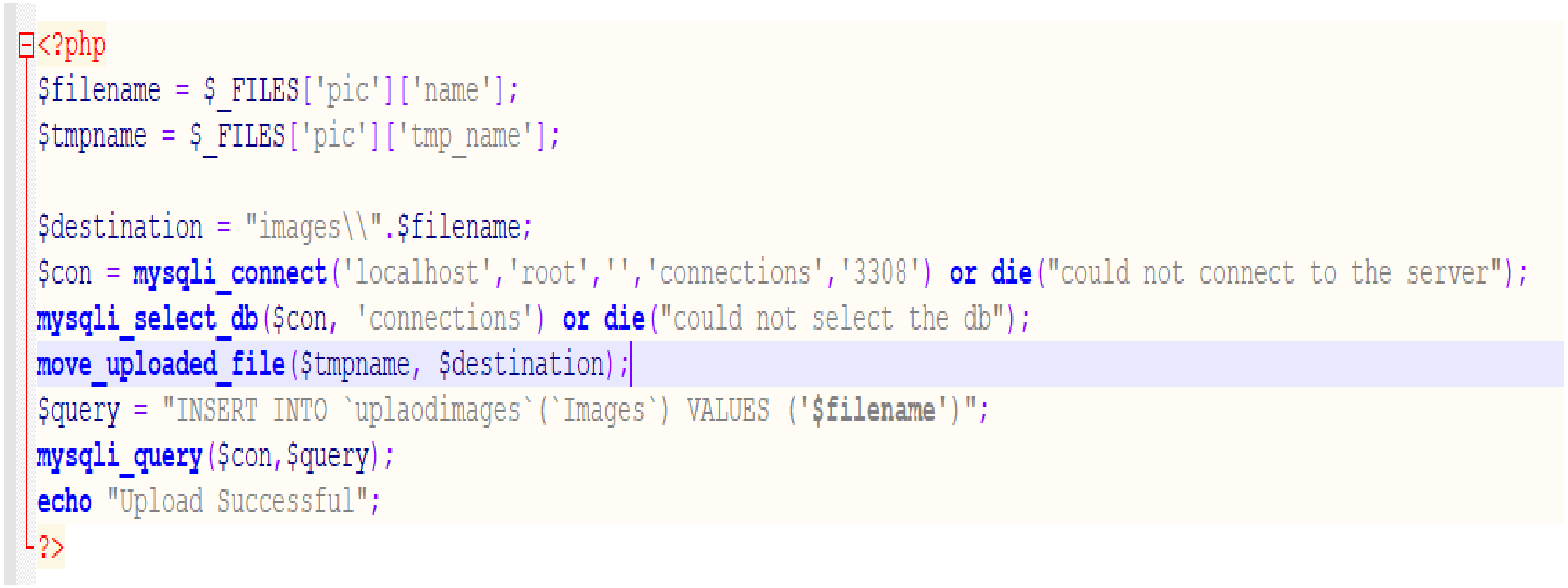
## Uploading file

- move_uploaded_file():
- move_uploaded_file ( string $filename , string $destination );
- If the file is valid, it will be moved to the filename given by destination.
- If the destination file already exists, it will be overwritten.

## Uploading file

- File upload steps:
- Identify the file to be uploaded
  - tmp_name is used
- Define destination
  - Location + file name
- Upload the file

# Uploading file



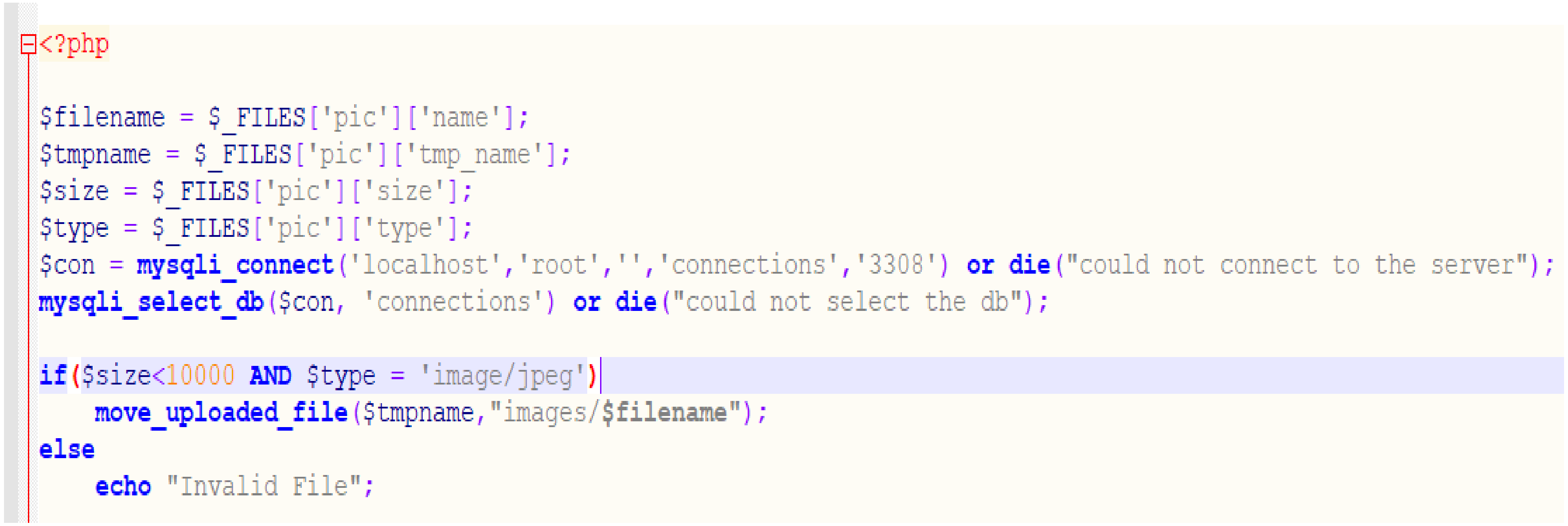
```php
<?php
$filename = $_FILES['pic']['name'];
$tmpname = $_FILES['pic']['tmp_name'];

$destination = "images\\".$filename;
$con = mysqli_connect('localhost','root','','connections','3308') or die("could not connect to the server");
mysqli_select_db($con, 'connections') or die("could not select the db");
move_uploaded_file($tmpname, $destination);
$query = "INSERT INTO `uplaodimages`(`Images`) VALUES ('$filename')";
mysqli_query($con,$query);
echo "Upload Successful";
?>
```

## Uploading file

- Restricting Users:
  - Size restriction
  - Type restriction
  - File rename

# Uploading file



```php
<?php

$filename = $_FILES['pic']['name'];
$tmpname = $_FILES['pic']['tmp_name'];
$size = $_FILES['pic']['size'];
$type = $_FILES['pic']['type'];
$con = mysqli_connect('localhost','root','','connections','3308') or die("could not connect to the server");
mysqli_select_db($con, 'connections') or die("could not select the db");

if($size<10000 AND $type = 'image/jpeg')
    move_uploaded_file($tmpname,"images/$filename");
else
    echo "Invalid File";
```

## References

- Chapter 10, “Beginning PHP6,Apache,Mysql web development” by Matt Doyle, Wrox publishers, 2009, ISBN: 0470413964
- Chapter 9 “Beginning PHP6,Apache,Mysql web development” by Matt Doyle, Wrox publishers, 2009, ISBN: 0470413964