

Laboratorul 5

Tehnologii Web



**Programmare
Web in PHP**



Obiectivele laboratorului



XAMPP



Limbaj



Web PHP



OOP in PHP

Instalare XAMPP





XAMPP Control Panel v3.2.2

| Service | Module | PID(s) | Port(s) | Actions |
|--------------------------|-----------|---------------|---------|-------------------------|
| <input type="checkbox"/> | Apache | 6384 21924 | 80, 443 | Stop Admin Config Logs |
| <input type="checkbox"/> | MySQL | 14168 | 3306 | Stop Admin Config Logs |
| <input type="checkbox"/> | FileZilla | | | Start Admin Config Logs |
| <input type="checkbox"/> | Mercury | | | Start Admin Config Logs |
| <input type="checkbox"/> | Tomcat | | | Start Admin Config Logs |

Config

Netstat

Shell

Explorer

Services

Help

Quit

```

1:21:15 PM [main] Initializing Control Panel
1:21:15 PM [main] Windows Version: Enterprise 64-bit
1:21:15 PM [main] XAMPP Version: 7.2.9
1:21:15 PM [main] Control Panel Version: 3.2.2 [ Compiled: Nov 12th 2015 ]
1:21:15 PM [main] You are not running with administrator rights! This will work for
1:21:15 PM [main] most application stuff but whenever you do something with services
1:21:15 PM [main] there will be a security dialogue or things will break! So think
1:21:15 PM [main] about running this application with administrator rights!
1:21:15 PM [main] XAMPP Installation Directory: "s:\xampp\"
1:21:15 PM [main] Checking for prerequisites
1:21:16 PM [main] All prerequisites found
1:21:16 PM [main] Initializing Modules
1:21:16 PM [main] Starting Check-Timer
1:21:16 PM [main] Control Panel Ready
1:21:18 PM [Apache] Attempting to start Apache app...
1:21:18 PM [Apache] Status change detected: running
1:21:20 PM [mysql] Attempting to start MySQL app...
1:21:21 PM [mysql] Status change detected: running

```

Control Panel

Install dir

The screenshot shows a Windows File Explorer window with the address bar set to 'This PC > WINDOWS (C:) > xampp'. The left sidebar shows the navigation pane with 'WINDOWS (C:)' selected. The main pane displays a list of folders in the xampp directory. The 'htdocs' folder is highlighted in blue.

| Name | Date modified | Type | Size |
|--------------|----------------------|-------------|------|
| anonymous | 29/12/2017 11:07 ... | File folder | |
| apache | 7/3/2018 3:51 AM | File folder | |
| cgi-bin | 29/12/2017 11:15 ... | File folder | |
| contrib | 29/12/2017 11:07 ... | File folder | |
| FileZillaFTP | 29/12/2017 11:15 ... | File folder | |
| htdocs | 29/3/2019 3:33 PM | File folder | |
| img | 29/12/2017 11:07 ... | File folder | |
| install | 29/12/2017 11:15 ... | File folder | |
| licenses | 29/12/2017 11:07 ... | File folder | |
| locale | 29/12/2017 11:07 ... | File folder | |
| mailoutput | 29/12/2017 11:07 ... | File folder | |
| mailtodisk | 29/12/2017 11:07 ... | File folder | |
| MercuryMail | 29/12/2017 11:15 ... | File folder | |
| mysql | 29/12/2017 11:08 ... | File folder | |
| New folder | 18/1/2018 12:08 AM | File folder | |
| perl | 29/12/2017 11:11 ... | File folder | |
| php | 29/12/2017 11:15 ... | File folder | |
| phpMyAdmin | 29/12/2017 11:13 ... | File folder | |
| sendmail | 1/3/2019 2:45 AM | File folder | |
| src | 29/12/2017 11:07 ... | File folder | |
| tmp | 2/4/2019 3:20 PM | File folder | |
| tomcat | 29/12/2017 11:09 ... | File folder | |
| uni | 8/3/2018 1:52 PM | File folder | |
| uploads | 22/3/2019 1:16 AM | File folder | |
| webalizer | 29/12/2017 11:15 ... | File folder | |
| webdav | 29/12/2017 11:07 ... | File folder | |

Language Basics



< PHP >

Basics

```
// Single line comment
```

```
# Single line comment
```

```
/*
```

```
Multiline
```

```
comment
```

```
*/
```

```
#VARIABLES
```

```
/*
```

```
– Prefix $
```

```
– Start with letter or an _
```

```
– Only letters, numbers and underscores
```

```
– Case sensitive
```

```
*/
```

```
#DATA TYPES
```

```
/*
```

```
String
```

```
Integers
```

```
floats
```

```
Booleans
```

```
Arrays
```

```
Objects
```

```
NULL
```

```
Resource
```


Variables

```
$_output = 'Hello World!';  
    $num1 = 4;  
    $num2 = 10;  
    $float1 = 4.4;  
    $bool1 = true;  
    $sum = $num1 + $num2;  
    $string1 = 'Hello';  
    $string2 = 'World';  
    $greeting = $string1.' '.$string2.'!';  
    $greeting2 = "$string1 $string2";  
  
    $string3 = "They\'re Here";  
  
    define('GREETING', 'Hello Everyone');
```

Arrays

```
//Indexed  
$people = array('Kevin', 'Jeremy', 'Sara');  
$ids = array (23, 55, 12);  
$cars = ['Honda', 'Toyota', 'Ford'];  
$cars[3] = 'Chevy';  
$cars[] = 'BMW'; //Add to the end of array
```

Arrays

```
//Associative arrays
$people = array('Brad' => 35, 'Jose' => 32, 'William' => 37);
//echo $people['Brad'];
$ids = [22 => 'Brad', 44 => 'Jose', 63 => 'William'];
```

```
//Multi-Dimensional
$cars = array(
    array('Honda', 20, 10),
    array('Toyota', 30, 20),
    array('Ford', 23, 12)
);
echo $cars[1][0];
```

Loops

```
for ( $i=0;$i<=10;$i++) {  
    echo 'Number '.$i;  
    echo '<br/>';  
}
```

```
$i = 0;  
while($i < 10) {  
    echo $i;  
    $i++;  
}
```

```
$i=0;  
do {  
    echo $i;  
    echo '<br/>';  
    $i++;  
} while ( $i <10);
```

Loops

```
#Foreach Loop – For arrays
```

```
$people = ['Brad','Jose','William'];
```

```
foreach( $people as $person ) {  
    echo $person;  
    echo '<br/>';  
}
```

```
$people = ['Brad' => 'brad@gmail.com','Jose' => 'jose@gmail.com',  
          'William' => 'william@yahoo.com'];
```

```
foreach( $people as $person => $email ) {  
    echo $person.': '.$email;  
    echo '<br/>';  
}
```

Conditionals

```
$num = 6;  
if($num == 5) {  
    echo '5 passed';  
} elseif ( $num == 6) {  
    echo '6 passed';  
}  
else {  
    echo 'did not pass';  
}
```

```
$favColor = 'red';  
  
switch($favColor) {  
    case 'red':  
        echo 'Your favorite color is red';  
        break;  
    case 'blue':  
        echo 'Your favorite color is blue';  
        break;  
    case 'green':  
        echo 'Your favorite color is green';  
        break;  
    default:  
        echo 'Your favorite color is something else';  
        break;  
}
```

Functions

```
//Simple function
function sayHello($name = 'World') {
    echo "Hello $name<br/>";
}
sayHello("Bill");

function addNumbers($num1, $num2) {
    return $num1 + $num2;
}
//Run simple function
echo addNumbers(2,3);
//By Reference
$myNum = 10;
function addTen (&$num) {
    $num +=10;
}
addTen($myNum);
echo "Value: $myNum<br/>";
```

Dates

```
// Set Time Zone
date_default_timezone_set('Europe/Bucharest');
echo date('h:m:s a')." <br/>";

$timestamp = mktime(03,10,12,4,20,1980);
echo $timestamp." <br/>";

echo date('m/d/Y', $timestamp)." <br/>";

$timestamp2 = strtotime('7:00pm March 22 2016');

$timestamp3 = strtotime('tomorrow');
$timestamp4 = strtotime('next Sunday');
$timestamp5 = strtotime('+2 days');
$timestamp6 = strtotime('-2 weeks');

echo date('m/d/Y h:i:sa', $timestamp6)." <br/>";
```


String functions

```
$output = substr('Hello',1,3);  
# Returns the length of a string  
$output = strlen('Hello World');  
#Strips whitespace  
echo trim('Hello world ');  
echo strtoupper('Hello World');  
echo strtolower('Hello World');  
$output = ucwords('hello world how are you d');  
  
$text = 'Hello World';  
$output = str_replace('World', 'Everyone', $text);  
  
$val = 'Hello';  
$output = is_string($val);
```

Superglobals

`$GLOBALS`

`$_SERVER`

`$_GET`

`$_POST`

`$_FILES`

`$_COOKIE`

`$_SESSION`

`$_REQUEST`

`$_ENV`

Include and require

#Script will continue to execute if error is found

```
<?php include('inc/header.php'); ?>
```

```
<h1>Contact</h1>
```

```
<?php include_once('inc/footer.php'); ?>
```

#Script will stop execution if error is found

```
<?php require_once('inc/header.php'); ?>
```

```
<h1>Home1</h1>
```

```
<?php require_once('inc/footer.php') ; ?>
```

OOP

#Script will continue to execute if error is found

```
<?php include('inc/header.php'); ?>
```

```
<h1>Contact</h1>
```

```
<?php include_once('inc/footer.php'); ?>
```

#Script will stop execution if error is found

```
<?php require_once('inc/header.php'); ?>
```

```
<h1>Home1</h1>
```

```
<?php require_once('inc/footer.php') ; ?>
```

OOP

```
<?php
class dog {
    public $name;

    public function __construct($nametext) {
        $this ->name = $nametext;
    }
    public function bark() {
        echo 'Woof!';
    }
}
?>
```

OOP

```
<?php
require_once( 'Dog.php' );
require_once( 'Poodle.php' );
$puppy = new dog( 'Lupu' );
$puppy->name = 'Rover';
echo $puppy->name." says ";
$puppy->bark();

$poodle = new poodle( 'Little' );

$poodle->bark();
$poodle->set_type(22);
echo $poodle->type;
?>
```

OOP

```
<?php
class poodle extends dog {
    public $type;
    public function set_type($height) {
        if($height<10) {
            $this->type = 'Toy';
        } elseif($height>15) {
            $this->type = 'Standard';
        } else {
            $this->type = 'Miniature';
        }
    }
}
?>
```

Get & Post

```
if(isset($_GET['name'])) {  
    $name = htmlentities($_GET['name']);  
    echo $name;  
}
```

```
if(isset($_POST['name'])) {  
    $name = htmlentities($_POST['name']);  
    echo $name;  
}
```

```
if(isset($_REQUEST['name'])) {  
    $name = htmlentities($_REQUEST['name']);  
    echo $name;  
}
```

```
<form method="GET" action="get_post.php">  
    <div>  
        <label for="">Name</label><br>  
        <input type="text" name="name" id="">  
    </div>  
    <div>  
        <label for="">Email</label><br>  
        <input type="text" name="email">  
    </div>  
    <input type="submit" value="Submit">  
</form>
```


Filters and validation

```
if(filter_has_var(INPUT_POST, 'data')) {
    $email = $_POST['data'];
    //Remove illegal characters
    $email = filter_var($email, FILTER_SANITIZE_EMAIL);
    echo $email.'<br>';
    //Vaildate email address
    if(filter_var($email, FILTER_VALIDATE_EMAIL)) {
        echo 'Email is valid';
    } else {
        echo 'Email is not valid';
    }
}
```

Filters and validation

```
$filters = array("data" => FILTER_VALIDATE_EMAIL,  
               "data2" => array(  
                   "filter" => FILTER_VALIDATE_INT,  
                   "options" => array(  
                       "min_range" =>1,  
                       "max_range" =>100  
                   )  
               )  
           );  
  
print_r(filter_input_array(INPUT_POST, $filters));
```

Sessions

```
session_start();
$_SESSION["username"]="Daniel";
unset($_SESSION["username"]);
session_unset(); //Unsets all variables
session_destroy(); //Effect on other pages
```

```
<?php
    echo $_SESSION["username"];
?>
</body>
```

Cookies

```
//set 1h cookie
    setcookie('username', $username, time()+3600);
//Update cookie
    setcookie('username', "Andrei", time() + (86400*30));
//Delete cookie
    setcookie('username', "Andrei", time() - 3600);

//Storing array into a cookie
$user = ['name' => 'Brad', 'email' => 'daniel@gmail.com',
        'age' => 35];
$user = serialize($user);
setcookie('user', $user, time() + 3600);
```

Files

```
<?php
// Specify the file path
$file_path = "example.txt";

// Text to be written to the file
$text_to_write = "Hello, this is some text written to the file!";

// Open the file in write mode. If the file doesn't exist, it will be created.
$file_handle = fopen($file_path, 'w');

// Check if the file was opened successfully
if ($file_handle === false) {
    echo "Failed to open/create the file.";
} else {
    // Write the text to the file
    if (fwrite($file_handle, $text_to_write) === false) {
        echo "Failed to write to the file.";
    } else {
        echo "Text has been written to the file successfully.";
    }

    // Close the file handle
    fclose($file_handle);
}
?>
```

Error handling

```
<?php
// Specify the file path
$file_path = "example.txt";

// Text to be written to the file
$text_to_write = "Hello, this is some text written to the file!";

try {
    // Open the file in write mode. If the file doesn't exist, it will be created.
    $file_handle = fopen($file_path, 'w');

    if ($file_handle === false) {
        throw new Exception("Failed to open/create the file.");
    }

    // Write the text to the file
    if (fwrite($file_handle, $text_to_write) === false) {
        throw new Exception("Failed to write to the file.");
    }

    // Close the file handle
    fclose($file_handle);

    echo "Text has been written to the file successfully.";
} catch (Exception $e) {
    echo "An error occurred: " . $e->getMessage();
}
?>
```

Exerciții

**“EDUCATION IS OUR
PASSPORT FOR THE FUTURE,
FOR TOMORROW BELONGS
ONLY TO THE PEOPLE THAT
PREPARE FOR IT TODAY .”**

— Malcom X