



Universitatea Tehnică din Cluj-Napoca
Facultatea de Inginerie Electrică

Laborator 5

Metode de implementare a unei interfete web grafice- utilizand PHP



Laborator 5: Implementare interfețe web grafice utilizând PHP

LIMBAJUL PHP

Limbajul PHP (Hypertext Preprocessor): cel mai popular limbaj de script pentru generarea de pagini HTML dinamice. Poate fi integrat în HTML.

Istoric PHP:

- ❑ conceput în 1994 de Rasmus Lerdorf.
- ❑ în prezent utilizat de aprox 244M domenii (<http://www.php.net/usage.php>)

Site oficial: <http://www.php.net>



LIMBAJUL PHP

General: download, documentație

- <http://www.php.net/>

Documentații: manual

- <http://www.php.net/manual/en/>
- <http://us2.php.net/manual/en/index.php>

Tutoriale:

- PHP.net tutorial: <http://php.net/manual/en/tutorial.php>
- W3schools tutorial:
<http://www.w3schools.com/php/default.asp>



LIMBAJUL PHP

Sintaxa:

- scripturile scrise în limbajul PHP pot fi editate cu orice editor de text
- terminarea unei instrucțiuni se face obligatoriu cu caracterul ;
- numele funcțiilor NU SUNT «case Sensitive» (nu se face diferență între litere mari/mici)
- numele variabilelor SUNT Case Sensitive
- ghilimelele se folosesc pereche "..." sau '...'
- variabilele sunt precedate de \$



LIMBAJUL PHP

Sintaxa :

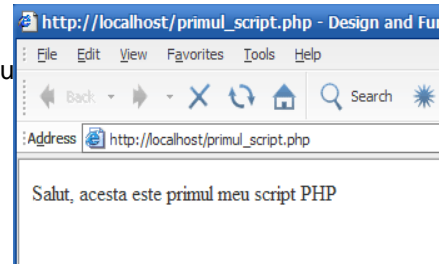
- ❑ Codul PHP poate apărea oriunde în fișierul HTML și este delimitat de 2 seturi de etichete de deschidere și închidere:

```
<?php          sau   <script language="php"?>
...           ...
?>           </script>
```

Ex.

```
<?php
echo 'Salut, acesta este primul meu
// comentariu PHP
# comentariu PHP
?>
```

<http://www.w3schools.com/php/>



PHP limbaj foarte puternic:

- ❑ cel mai mare sistem de blogging web (WordPress) bazat pe PHP
- ❑ cea mai mare rețea socială (Facebook) bazată pe PHP



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables -se definesc cu \$
- PHP Echo / Print
- PHP Data Types
- PHP Strings
- PHP Constants
- PHP Operators
- PHP If...Else...Elseif
- PHP Switch
- PHP While Loops
- PHP For Loops
- PHP Functions
- PHP Arrays

```
<?php
$txt = "Hello world!";
$x = 5;
$y = 10.5;
?>
```



LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables

PHP Echo / Print -afisare date: variabile, constante, expresii

PHP Data Types

PHP Strings

PHP Constants

PHP Operators

PHP If...Else...Elseif

PHP Switch

PHP While Loops

PHP For Loops

PHP Functions

PHP Arrays

```
<?php
$txt1 = "Learn PHP";
$txt2 = "W3Schools.com";
$x = 5;
$y = 4;

echo "<h2>$txt1</h2>";
echo "Study PHP at $txt2<br>";
echo $x + $y;
?>
```

Learn PHP

Study PHP at W3Schools.com
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LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables

PHP Echo / Print

PHP Data Types -Tipuri de date definite in PHP:

PHP Strings

PHP Constants

PHP Operators

PHP If...Else...Elseif

PHP Switch

PHP While Loops

PHP For Loops

PHP Functions

PHP Arrays

- String
- Integer
- Float (floating point numbers - also called double)
- Boolean
- Array
- Object
- NULL -valoare implicita de initializare a variabilelor
- Resource -apelare baza de date



LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables

PHP Echo / Print

PHP Data Types

PHP Strings

-siruri

PHP Constants

PHP Operators

PHP If...Else...Elseif

PHP Switch

PHP While Loops

PHP For Loops

PHP Functions

PHP Arrays

-functie lungime sir

```
<?php
echo strlen("Hello world!"); // outputs 12
?>
```

-functie nr cuvinte din sir

```
<?php
echo str_word_count("Hello world!"); // outputs 2
?>
```

-functie inversare sir

```
<?php
echo strrev("Hello world!"); // outputs !dlrow olleH
?>
```

Lista completa functii siruri: [PHP String Reference](#).



LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables

PHP Echo / Print

PHP Data Types

PHP Strings

PHP Constants

-constante

PHP Operators

PHP If...Else...Elseif

PHP Switch

PHP While Loops

PHP For Loops

PHP Functions

PHP Arrays

Sintaxa:

```
define(name, value, case-insensitive)
```

unde: *name*: nume constanta

value: valoarea constantei

case-insensitive: nume constanta este case-insensitive sau

```
<?php
define("GREETING", "Welcome to W3Schools.com!", true);
echo greeting;
?>
```

Welcome to W3Schools.com!



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables
- PHP Echo / Print
- PHP Data Types
- PHP Strings
- PHP Constants

PHP Operators -operatori

- PHP If...Else...Elseif
- PHP Switch
- PHP While Loops
- PHP For Loops
- PHP Functions
- PHP Arrays

- Arithmetic operators
- Assignment operators
- Comparison operators
- Increment/Decrement operators
- Logical operators
- String operators
- Array operators

Operator	Name	Example	Result
+	Addition	\$x + \$y	Sum of \$x and \$y
-	Subtraction	\$x - \$y	Difference of \$x and \$y
*	Multiplication	\$x * \$y	Product of \$x and \$y
/	Division	\$x / \$y	Quotient of \$x and \$y
%	Modulus	\$x % \$y	Remainder of \$x divided by \$y



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables
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PHP Operators -operatori

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- Array operators

Assignment	Same as...	Description
x = y	x = y	The left operand gets set to the value of the expression on the right
x += y	x = x + y	Addition
x -= y	x = x - y	Subtraction
x *= y	x = x * y	Multiplication
x /= y	x = x / y	Division
x %= y	x = x % y	Modulus



LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables

PHP Echo / Print

PHP Data Types

PHP Strings

PHP Constants

PHP Operators -operatori

PHP If...Else...Elseif

PHP Switch

PHP While Loops

PHP For Loops

PHP Functions

PHP Arrays

- Arithmetic operators
- Assignment operators
- Comparison operators

Operator	Name	Example	Result
==	Equal	\$x == \$y	Returns true if \$x is equal to \$y
===	Identical	\$x === \$y	Returns true if \$x is equal to \$y, and they are of the same type
!=	Not equal	\$x != \$y	Returns true if \$x is not equal to \$y
<>	Not equal	\$x <> \$y	Returns true if \$x is not equal to \$y
!==	Not identical	\$x !== \$y	Returns true if \$x is not equal to \$y, or they are not of the same type
>	Greater than	\$x > \$y	Returns true if \$x is greater than \$y
<	Less than	\$x < \$y	Returns true if \$x is less than \$y
>=	Greater than or equal to	\$x >= \$y	Returns true if \$x is greater than or equal to \$y
<=	Less than or equal to	\$x <= \$y	Returns true if \$x is less than or equal to \$y



LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables

PHP Echo / Print

PHP Data Types

PHP Strings

PHP Constants

PHP Operators -operatori

PHP If...Else...Elseif

PHP Switch

PHP While Loops

PHP For Loops

PHP Functions

PHP Arrays

- Arithmetic operators
- Assignment operators
- Comparison operators
- Increment/Decrement operators
- Logical operators
- String operators
- Array operators

Operator	Name	Description
++\$x	Pre-increment	Increments \$x by one, then returns \$x
\$x++	Post-increment	Returns \$x, then increments \$x by one
--\$x	Pre-decrement	Decrements \$x by one, then returns \$x
\$x--	Post-decrement	Returns \$x, then decrements \$x by one



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables
- PHP Echo / Print
- PHP Data Types
- PHP Strings
- PHP Constants

PHP Operators

- PHP If...Else...Elseif
- PHP Switch
- PHP While Loops
- PHP For Loops
- PHP Functions
- PHP Arrays

- Arithmetic operators
- Assignment operators
- Comparison operators
- Increment/Decrement operators
- Logical operators
- String operators
- Array operators

Operator	Name	Example	Result
and	And	\$x and \$y	True if both \$x and \$y are true
or	Or	\$x or \$y	True if either \$x or \$y is true
xor	Xor	\$x xor \$y	True if either \$x or \$y is true, but not both
&&	And	\$x && \$y	True if both \$x and \$y are true
	Or	\$x \$y	True if either \$x or \$y is true
!	Not	!\$x	True if \$x is not true



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables
- PHP Echo / Print
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- PHP Constants

PHP Operators -operatori

- PHP If...Else...Elseif
- PHP Switch
- PHP While Loops
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- Arithmetic operators
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- Comparison operators
- Increment/Decrement operators
- Logical operators
- String operators
- Array operators

Operator	Name	Example	Result
.	Concatenation	\$txt1 . \$txt2	Concatenation of \$txt1 and \$txt2
.=	Concatenation assignment	\$txt1 .= \$txt2	Appends \$txt2 to \$txt1



Elemente ale limbajului PHP:

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- Arithmetic operators
- Assignment operators
- Comparison operators
- Increment/Decrement operators
- Logical operators
- String operators
- Array operators

Operator	Name	Example	Result
+	Union	$\$x + \y	Union of $\$x$ and $\$y$
==	Equality	$\$x == \y	Returns true if $\$x$ and $\$y$ have the same key/value pairs
===	Identity	$\$x === \y	Returns true if $\$x$ and $\$y$ have the same key/value pairs in the same order and of the same types
!=	Inequality	$\$x != \y	Returns true if $\$x$ is not equal to $\$y$
<>	Inequality	$\$x <> \y	Returns true if $\$x$ is not equal to $\$y$
!==	Non-identity	$\$x !== \y	Returns true if $\$x$ is not identical to $\$y$



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables
- PHP Echo / Print
- PHP Data Types
- PHP Strings
- PHP Constants
- PHP Operators
- PHP If...Else...Elseif**
- PHP Switch
- PHP While Loops
- PHP For Loops
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- PHP Arrays

```
if (condition) {  
    code to be executed if condition is true;  
}
```

```
if (condition) {  
    code to be executed if condition is true;  
} else {  
    code to be executed if condition is false;  
}
```



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables
- PHP Echo / Print
- PHP Data Types
- PHP Strings
- PHP Constants
- PHP Operators
- PHP If...Else...Elseif
- PHP Switch**
- PHP While Loops
- PHP For Loops
- PHP Functions
- PHP Arrays

```
<?php
$favcolor = "red";

switch (n) {
  case label:
    code to be executed if n is equal to label;
    break;
  case label:
    code to be executed if n is equal to label;
    break;
  case label:
    code to be executed if n is equal to label;
    break;
  default:
    code to be executed if n is different from all labels;
}
?>
```



LIMBAJUL PHP

Elemente ale limbajului PHP:

- PHP Variables
- PHP Echo / Print
- PHP Data Types
- PHP Strings
- PHP Constants
- PHP Operators
- PHP If...Else...Elseif
- PHP Switch
- PHP While Loops**
- PHP For Loops
- PHP Functions
- PHP Arrays

```
while (condition is true) {
  code to be executed;
}
```

```
do {
  code to be executed;
} while (condition is true);
```

```
<?php
$x = 1;
while($x <= 5) {
  echo "The number is: $x <br>";
  $x++;
}
?>
```

The number is: 1
The number is: 2
The number is: 3
The number is: 4
The number is: 5

```
<?php
$x = 1;

do {
  echo "The number is: $x <br>";
  $x++;
} while ($x <= 5);
?>
```



LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables	<pre>for (init counter; test counter; increment counter) code to be executed; }</pre>	The number is: 0 The number is: 1 The number is: 2 The number is: 3 The number is: 4 The number is: 5 The number is: 6 The number is: 7 The number is: 8 The number is: 9 The number is: 10
PHP Echo / Print		
PHP Data Types		
PHP Strings		
PHP Constants		
PHP Operators		
PHP If...Else...Elseif		
PHP Switch		
PHP While Loops		
PHP For Loops	<pre><?php for (\$x = 0; \$x <= 10; \$x++) { echo "The number is: \$x
"; } ?></pre>	
PHP Functions		
PHP Arrays	<pre>foreach (\$array as \$value) { code to be executed; } <?php \$colors = array("red", "green", "blue", "yellow"); foreach (\$colors as \$value) { echo "\$value
"; } ?></pre>	red green blue yellow



LIMBAJUL PHP

Elemente ale limbajului PHP:

PHP Variables	<pre>function functionName() { code to be executed; }</pre>	
PHP Echo / Print		
PHP Data Types		
PHP Strings		
PHP Constants		
PHP Operators		
PHP If...Else...Elseif		
PHP Switch		
PHP While Loops		
PHP For Loops		
PHP Functions	<pre><?php function writeMsg() { echo "Hello world!"; } writeMsg(); // call the function ?></pre>	Hello world!
PHP Arrays		

-functii utilizator



LIMBAJUL PHP

Elemente ale limbajului PHP:

I like Volvo, BMW and Toyota.

PHP Variables

PHP Echo / Print

PHP Data Types

PHP Strings

PHP Constants

PHP Operators

PHP If...Else...Elseif

PHP Switch

PHP While Loops

PHP For Loops

PHP Functions

```
<?php
$cars = array("Volvo", "BMW", "Toyota");
echo "I like " . $cars[0] . ", " . $cars[1] . " and " . $cars[2] . ".";
?>
```

Funcții de sortare enumerari:

- sort() - sort arrays in ascending order
- rsort() - sort arrays in descending order
- asort() - sort associative arrays in ascending order, according to the value
- ksort() - sort associative arrays in ascending order, according to the key
- arsort() - sort associative arrays in descending order, according to the value
- krsort() - sort associative arrays in descending order, according to the key

PHP Arrays -enumerari



EXEMPLE PHP: 1. Afisare text simplu, variabile case sensitive

```
<!DOCTYPE html>
<html>
<body>

<h1>My first PHP page</h1>

<?php
echo "Hello World!";
?>

</body>
</html>
```

My first PHP page

Hello World!

```
<!DOCTYPE html>
<html>
<body>

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

</body>
</html>
```

My car is red
My house is
My boat is



EXEMPLE PHP: 2.Comentarii+ afisare rezultat expresie

```
<!DOCTYPE html>
<html>
<body>

<?php
// This is a single-line comment

# This is also a single-line comment

/*
This is a multiple-lines comment block
that spans over multiple
lines
*/

// You can also use comments to leave out parts of a code line
$x = 5 /* + 15 */ + 5;
echo $x;
?>

</body>
</html>
```

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EXEMPLE PHP: 3.Tiparire cu echo sau print

```
<!DOCTYPE html>
<html>
<body>

<?php
echo "<h2>PHP is Fun!</h2>";
echo "Hello world!<br>";
echo "I'm about to learn PHP!<br>";
echo "This ", "string ", "was ", "made
", "with multiple parameters.";
?>

</body>
</html>
```

PHP is Fun!

Hello world!
I'm about to learn PHP!
This string was made with multiple parameters.

```
<!DOCTYPE html>
<html>
<body>

<?php
print "<h2>PHP is Fun!</h2>";
print "Hello world!<br>";
print "I'm about to learn PHP!";
?>

</body>
</html>
```

PHP is Fun!

Hello world!
I'm about to learn PHP!



EXEMPLE PHP: 4.Siruri indexate

```
<!DOCTYPE html>
<html>
<body>

<?php
echo str_word_count("Hello world!");
?>

</body>
</html>
```

2

```
<!DOCTYPE html>
<html>
<body>

<?php
$cars = array("Volvo", "BMW", "Toyota");
$arrlength = count($cars);

for($x = 0; $x < $arrlength; $x++) {
    echo $cars[$x];
    echo "<br>";
}
?>

</body>
</html>
```

Volvo
BMW
Toyota



EXEMPLE PHP: 5.Siruri asociative

```
<!DOCTYPE html>
<html>
<body>

<?php
$age = array("Peter"=>"35", "Ben"=>"37", "Joe"=>"43");
echo "Peter is " . $age['Peter'] . " years old.";
?>

</body>
</html>
```

Peter is 35 years old.

Cum se tiparesc toate valorile asociate elementelor sirului?

```
<!DOCTYPE html>
<html>
<body>

<?php
$age = array("Peter"=>"35", "Ben"=>"37", "Joe"=>"43");

foreach($age as $x => $x_value) {
    echo "Key=" . $x . ", Value=" . $x_value;
    echo "<br>";
}
?>
```

Key=Peter, Value=35
Key=Ben, Value=37
Key=Joe, Value=43



EXEMPLE PHP: 6.Data calendaristica sistem

```
<!DOCTYPE html>
<html>
<body>

<?php
echo "Today is " . date("Y/m/d") . "<br>";
echo "Today is " . date("Y.m.d") . "<br>";
echo "Today is " . date("Y-m-d") . "<br>";
echo "Today is " . date("l");
?>

</body>
</html>
```

Today is 2017/11/22
Today is 2017.11.22
Today is 2017-11-22
Today is Wednesday

```
<!DOCTYPE html>
<html>
<body>

<?php
echo "The time is " . date("h:i:sa");
?>

</body>
</html>
```

The time is 06:33:15am



LIMBAJUL PHP

Variabile globale – superglobals introduse din versiunea PHP 4.1.0

- \$GLOBALS
- \$_SERVER
- \$_REQUEST
- **\$_POST**
- **\$_GET** -utilizate pentru formulare on line in HTML5
- \$_FILES
- \$_ENV
- \$_COOKIE
- \$_SESSION



FORMULARE ON LINE – METODA HTTP POST

<pre><!DOCTYPE HTML> <html> <body> <form action="welcome.php" method="post"> Name: <input type="text" name="name">
 E-mail: <input type="text" name="email">
 <input type="submit"> </form> </body> </html></pre>	Name: <input type="text" value="Laura Grindei"/> E-mail: <input type="text" value="Laura.Grindei@et.utcluj.ro"/> <input type="submit" value="Trimite"/>
---	---

Rezultat: datele completate sunt trimise prin metoda HTTP POST in fisierul *welcome.php* si browserul client afiseaza:

Welcome Laura Grindei
Your email address is: Laura.Grindei@et.utcluj.ro



FORMULAR ON LINE – METODA HTTP GET

<pre><!DOCTYPE HTML> <html> <body> <form action="welcome_get.php" method="get"> Name: <input type="text" name="name">
 E-mail: <input type="text" name="email">
 <input type="submit"> </form> </body> </html></pre>	Name: <input type="text" value="Laura Grindei"/> E-mail: <input type="text" value="Laura.Grindei@et.utcluj.ro"/> <input type="submit" value="Trimite"/>
--	---

Rezultat: datele completate sunt trimise prin metoda HTTP POST in fisierul "*welcome_get.php*" si browserul client afiseaza:

Welcome Laura Grindei
Your email address is: Laura.Grindei@et.utcluj.ro



FORMULARE ON LINE – ALEGEREA METODEI

Metoda HTTP GET se alege când :

informațiile trimise dintr-un formular cu metoda GET sunt publice .

informația trimisă prin formular : maxim 2000 caractere

Observație: GET nu trebuie utilizat niciodată pentru trimiterea de parole sau alte informații sensibile!

Metoda HTTP POST este metoda mai des utilizată și se alege când :

informațiile trimise cu metoda POST sunt invizibile pentru alții

informația depășește 2000 de caractere (nelimitat)

Observație: POST e recomandată pentru trimiterea de parole sau alte informații sensibile



FORMULARE ON LINE – Validare formulare PHP

```
<?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"]);
    }

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

PHP Form Validation Example

* required field.

Name: *

E-mail: *

Website:

Comment:

Gender: Female Male *



Includere fișiere în PHP : Include

Ex. 1 Include footer.php

footer.php

```
<?php
echo "<p>Copyright &copy; 1999-" . date("Y") . " W3Schools.com</p>";
?>
```

index.php

```
<!DOCTYPE html>
<html>
<body>

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

</body>
</html>
```

Welcome to my home page!

Some text.

Some more text.

Copyright © 1999-2017 W3Schools.com



Includere fișiere în PHP : Include

Ex. 2 Include menu.php

menu.php

```
<?php
echo '<a href="/default.asp">Home</a> -
<a href="/html/default.asp">HTML Tutorial</a> -
<a href="/css/default.asp">CSS Tutorial</a> -
<a href="/js/default.asp">JavaScript Tutorial</a> -
<a href="default.asp">PHP Tutorial</a>';
?>
```

index.php

```
<!DOCTYPE html>
<html>
<body>

<div class="menu">
<?php include 'menu.php';?>
</div>

<h1>Welcome to my home page!</h1>
<p>Some text.</p>
<p>Some more text.</p>

</body>
</html>
```

[Home](#) - [HTML Tutorial](#) - [CSS Tutorial](#) - [JavaScript Tutorial](#) - [PHP Tutorial](#)

Welcome to my home page!

Some text.

Some more text.



Includere fișiere în PHP : Include

Ex. 3 Include header.php , menu.php

index.php

```
<?php include('header.php'); ?>
<TABLE width="99%" border=0 cellPadding=0 cellSpacing=0>
  <TBODY>
    <TR>
      <TD align=center valign="top" bgcolor="#FFFFFF"> <table width="100%" border="0">
        <tr>
          <td height="130" align="center"></td>
        </tr>
      </table>
      <div align="center"><font size="2">A</font><font size="2">cest site este cofinantat din Fondul Social European prin Programul Operational Sectorial de Dezvoltarea Resurselor Umane 2007-2013. </font><font size="1">Pentru informatii detaliate despre celelalte programe <br />cofinantate de Uniunea Europeana , va invitam sa vizitati <a href="http://www.fonduri-ue.ro"><strong><u>www.fonduri-ue.ro</u></strong></a></font></div></TD>
    </TR>
  </TBODY>
</TABLE>
<td width=209 valign=top>
  <?php include('menu.php'); ?>
  <p align="left"><br>
</p></td>
```



Includere fișiere în PHP : Fișiere- open , read, close

Ex. 3 afișează text din fișier

webdictionary.txt

```
AJAX = Asynchronous JavaScript and XML
CSS = Cascading Style Sheets
HTML = Hyper Text Markup Language
PHP = PHP Hypertext Preprocessor
SQL = Structured Query Language
SVG = Scalable Vector Graphics
XML = EXTensible Markup Language
```

index.php

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

```
AJAX = Asynchronous JavaScript and XML
CSS = Cascading Style Sheets
HTML = Hyper Text Markup Language
PHP = PHP Hypertext Preprocessor
SQL = Structured Query Language
SVG = Scalable Vector Graphics
XML = EXTensible Markup Language
```



Includere fișiere în PHP : Fișiere- open , read , close

Ex. 4 afișează o singură linie text din fișier cu `fgets` `webdictionary.txt`

```
AJAX = Asynchronous JavaScript and XML
CSS = Cascading Style Sheets
HTML = Hyper Text Markup Language
PHP = PHP Hypertext Preprocessor
SQL = Structured Query Language
SVG = Scalable Vector Graphics
XML = Extensible Markup Language
```

`index.php`

```
<!DOCTYPE html>
<html>
<body>

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

</body>
</html>
```

AJAX = Asynchronous JavaScript and XML



Includere fișiere în PHP : Fișiere- open , read , close

Ex. 5 afișează conținutul unui fișier cu `feof()` și `fgets()`

`webdictionary.txt`

```
AJAX = Asynchronous JavaScript and XML
CSS = Cascading Style Sheets
HTML = Hyper Text Markup Language
PHP = PHP Hypertext Preprocessor
SQL = Structured Query Language
SVG = Scalable Vector Graphics
XML = Extensible Markup Language
```

`index.php`

```
<!DOCTYPE html>
<html>
<body>

<?php
$myfile = fopen("webdictionary.txt", "r")
or die("Unable to open file!");
// Output one line until end-of-file
while(!feof($myfile)) {
    echo fgets($myfile) . "<br>";
}
fclose($myfile);
?>

</body>
</html>
```

AJAX = Asynchronous JavaScript and XML
CSS = Cascading Style Sheets
HTML = Hyper Text Markup Language
PHP = PHP Hypertext Preprocessor
SQL = Structured Query Language
SVG = Scalable Vector Graphics
XML = Extensible Markup Language



Includere fișiere în PHP : Fișiere- open , read , close

Ex. 6 afișează conținutul unui fișier caracter cu caracter feof(),fgetc()

webdictionary.txt

```
AJAX = Asynchronous JavaScript and XML
CSS = Cascading Style Sheets
HTML = Hyper Text Markup Language
PHP = PHP Hypertext Preprocessor
SQL = Structured Query Language
SVG = Scalable Vector Graphics
XML = EXtensible Markup Language
```

index.php

```
<!DOCTYPE html>
<html>
<body>

<?php
$myfile = fopen("webdictionary.txt", "r")
or die("Unable to open file!");
// Output one character until end-of-file
while(!feof($myfile)) {
    echo fgetc($myfile);
}
fclose($myfile);
?>

</body>
</html>
```

```
AJAX = Asynchronous JavaScript and
XML CSS = Cascading Style Sheets
HTML = Hyper Text Markup Language
PHP = PHP Hypertext Preprocessor SQL =
Structured Query Language SVG =
Scalable Vector Graphics XML =
EXtensible Markup Language
```



Includere fișiere în PHP : Fișiere- open , write , close

Ex. 7 scrie într-un fișier 2 variabile șir : fwrite()

index.php

```
<?php
$myfile = fopen("newfile.txt", "w") or die("Unable to open file!");
$txt = "John Doe\n";
fwrite($myfile, $txt);
$txt = "Jane Doe\n";
fwrite($myfile, $txt);
fclose($myfile);
?>
```

newfile.txt

```
John Doe
Jane Doe
```



Includere fișiere în PHP : Fișiere- open , read , close

Moduri de deschidere fișiere

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



SGBD MySQL

MySQL : SGBD foarte rapid și robust permite accesul multi-user și multi-thread (mai multe fire de execuție). Utilizează limbajul SQL.

Istoric MySQL:

- apare în 1979
- disponibil public din 1996

Adresa web MySQL: <http://www.mysql.com>

Caracteristici generale:

- gratuit
- Open Source, dar și cu licențe comerciale.



Clienti MySQL

AEROSPACE, DEFENSE <ul style="list-style-type: none">» Los Alamos National Laboratory» NASA» US Navy» MORE	EDUCATION <ul style="list-style-type: none">» Ladok» College of William & Mary» Scholastic» MORE	FINANCIAL SERVICES <ul style="list-style-type: none">» Wealthfront» Bank of Finland» HypoVereinsbank» MORE
GOVERNMENT <ul style="list-style-type: none">» WhiteHouse.Gov» United Nations FAO» US Navy» MORE	HEALTHCARE, PHARMA <ul style="list-style-type: none">» Sahlgrenska University Hospital» UCR» Candelis» MORE	MEDIA & ENTERTAINMENT <ul style="list-style-type: none">» MTV Networks» Big Fish» Netflix» MORE
RETAIL <ul style="list-style-type: none">» Glasses Direct» The Phone House Telecom GmbH» Leader Price» MORE	SMALL & MEDIUM BUSINESS <ul style="list-style-type: none">» Clickability» thePlatform» MORE	TECHNOLOGY: HARDWARE <ul style="list-style-type: none">» Candelis» Hitachi Data Systems» Sandstorm Enterprises» MORE



Clienti MySQL

TECHNOLOGY: OPEN SOURCE PROJECTS <ul style="list-style-type: none">» Glassfish Open Message Queue (OpenMQ)» Amarak» FreeRADIUS» MORE	TECHNOLOGY: SOFTWARE <ul style="list-style-type: none">» DocQ» EMC» Intellitactics» MORE	TELECOM <ul style="list-style-type: none">» The Phone House Telecom GmbH» Tellme Networks» Italtel» MORE
TRAVEL & HOSPITALITY <ul style="list-style-type: none">» LAN AIRLINES S.A.» Datagest» Priceline.com (Europe)» MORE	WEB: ECOMMERCE <ul style="list-style-type: none">» iStockphoto» Airbnb» Uber» MORE	WEB: GAMES <ul style="list-style-type: none">» King Digital Entertainment - Candy Crush» LeoVegas» Toto-Lotto Niedersachsen» MORE
WEB: SAAS, HOSTING <ul style="list-style-type: none">» Clickability» Magus» Atos Worldline» MORE	WEB: SOCIAL NETWORKS <ul style="list-style-type: none">» Tumblr» LinkedIn» Facebook» MORE	



PHP și MySQL

PHP 5 (și versiunile ulterioare) se conectează cu baze de date MySQL prin:

❑ **extensia MySQLi** ("i" de la improved): permite conectarea doar cu BD MySQL în 2 moduri:

- Object Oriented și
- Procedural)

<http://php.net/manual/en/mysqli.installation.php>

❑ **PDO (PHP Data Objects)**: permite conectarea cu 12 tipuri diferite de BD

<http://php.net/manual/en/pdo.installation.php>



Deschidere conexiune la BD MySQL cu MySQLi Object-Oriented

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";

// Create connection
$conn = new mysqli($servername, $username, $password);

// Check connection
if ($conn->connect_error) {
    die("Conexiune eșuată: " . $conn->connect_error);
}
echo "Conectat cu succes";
?>
```

Inchidere conexiune

```
$conn->close();
```



Deschidere conexiune la BD MySQL cu MySQLi Procedural

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";

// Create connection
$conn = mysqli_connect($servername, $username, $password);

// Check connection
if (!$conn) {
    die("Connection failed: " . mysqli_connect_error());
}
echo "Connected successfully";
?>
```

Inchidere conexiune

```
mysqli_close($conn);
```



Deschidere conexiune PHP la BD MySQL cu PDO

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";

try {
    $conn = new PDO("mysql:host=$servername;dbname=myDB", $username, $password);
    // set the PDO error mode to exception
    $conn->setAttribute(PDO::ATTR_ERRMODE, PDO::ERRMODE_EXCEPTION);
    echo "Connected successfully";
}
catch(PDOException $e)
{
    echo "Connection failed: " . $e->getMessage();
}
?>
```

Inchidere conexiune

```
$conn = null;
```



Creare BD utilizand PHP si MySQLi Object-oriented

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";

// Create connection
$conn = new mysqli($servername, $username, $password);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

// Create database
$sql = "CREATE DATABASE myDB";
if ($conn->query($sql) === TRUE) {
    echo "Database created successfully";
} else {
    echo "Error creating database: " . $conn->error;
}

$conn->close();
?>
```



Exemplu creare tabel in BD utilizand PHP si MySQLi Object-orient

Se creeaza un tabel "MyGuests",
cu 5 coloane:

1. "id",
2. "firstname",
3. "lastname",
4. "email" si
5. "reg_date":

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

// sql to create table
$sql = "CREATE TABLE MyGuests (
id INT(6) UNSIGNED AUTO_INCREMENT PRIMARY KEY,
firstname VARCHAR(30) NOT NULL,
lastname VARCHAR(30) NOT NULL,
email VARCHAR(50),
reg_date TIMESTAMP
)";

if ($conn->query($sql) === TRUE) {
    echo "Table MyGuests created successfully";
} else {
    echo "Error creating table: " . $conn->error;
}
}
```



Exemplu inserare date in BD utilizand PHP si MySQLi Object-oriented

```
// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

$sql = "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('John', 'Doe', 'john@example.com')";

if ($conn->query($sql) === TRUE) {
    echo "New record created successfully";
} else {
    echo "Error: " . $sql . "<br>" . $conn->error;
}
```



Exemplu inserare multipla date in BD utilizand PHP si MySQLi Object-oriented

```
$sql = "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('John', 'Doe', 'john@example.com')";
$sql .= "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('Mary', 'Moe', 'mary@example.com')";
$sql .= "INSERT INTO MyGuests (firstname, lastname, email)
VALUES ('Julie', 'Dooley', 'julie@example.com')";

if ($conn->multi_query($sql) === TRUE) {
    echo "New records created successfully";
} else {
    echo "Error: " . $sql . "<br>" . $conn->error;
}
```



Exemplu interogare date în BD cu SELECT utilizând PHP și MySQLi Object-oriented

```
<?php
$servername = "localhost";
$username = "username";
$password = "password";
$dbname = "myDB";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

$sql = "SELECT id, firstname, lastname FROM MyGuests";
$result = $conn->query($sql);

if ($result->num_rows > 0) {
    // output data of each row
    while($row = $result->fetch_assoc()) {
        echo "id: " . $row["id"]. " - Name: " . $row["firstname"]. " " . $row["lastname"]. " " . $row["email"]. " " . $row["reg_date"] . "<br>";
    }
} else {
    echo "0 results";
}
$conn->close();
?>
```

Rezultate afișate

id: 1 - Name: John Doe
id: 2 - Name: Mary Moe
id: 3 - Name: Julie Dooley



Exemplu ștergere date din BD cu DELETE utilizând PHP și MySQLi Object-oriented

Fie tabelul "MyGuests": se șterge al 3-lea articol/linie

id	firstname	lastname	email	reg_date
1	John	Doe	john@example.com	2014-10-22 14:26:15
2	Mary	Moe	mary@example.com	2014-10-23 10:22:30
3	Julie	Dooley	julie@example.com	2014-10-26 10:48:23

```
// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}
```

```
// sql to delete a record
$sql = "DELETE FROM MyGuests WHERE id=3";

if ($conn->query($sql) === TRUE) {
    echo "Record deleted successfully";
} else {
    echo "Error deleting record: " . $conn->error;
}
```



Exemplu modificare date din BD cu UPDATE utilizând PHP și MySQLi Object-oriented

Fie tabel "MyGuests": se modifică câmpul lastname pentru articolul 2 în Doe

id	firstname	lastname	email	reg_date
1	John	Doe	john@example.com	2014-10-22 14:26:15
2	Mary	Moe	mary@example.com	2014-10-23 10:22:30

```
$sql = "UPDATE MyGuests SET lastname='Doe' WHERE id=2";  
  
if ($conn->query($sql) === TRUE) {  
    echo "Record updated successfully";  
} else {  
    echo "Error updating record: " . $conn->error;  
}
```

Rezultat

id	firstname	lastname	email	reg_date
1	John	Doe	john@example.com	2014-10-22 14:26:15
2	Mary	Doe	mary@example.com	2014-10-23 10:22:30



Validare cod PHP on line

- [PHP Sandbox, test PHP online, PHP tester](#) ↗
- [Write Code Online - PHP | start write and run php code online](#) ↗
- [eval.in](#) ↗
- [Execute PHP Script Online](#) ↗
- [Nitrous.IO](#) ↗



Validare cod PHP on line Sandbox

Your script:

```
1 <?php
2 //Enter your code here, enjoy!
3
4 $array = array("1" => "PHP code tester Sandbox Online",
5               "foo" => "bar", 5, 5 => 89009,
6               "case" => "Random Stuff: " . rand(100,999),
7               "PHP Version" => phpversion()
8               );
9
10 foreach( $array as $key => $value ){
11     echo $key."\t=>\t".$value."\n";
12 }
13
14
```

Run on PHP version: 7.0.3

Output: Textbox

Execute code

Save or share your code

Result:

```
1 => PHP code tester Sandbox Online
foo => bar
2 => 5
5 => 89009
case => Random Stuff: 644
PHP Version => 7.0.3
```



Validare cod PHP on line

write php online - Start write and run your php code online

Crontab Generator PHP Functions PHP Beautifier Play Pokémon GO

```
<?php
1 echo 'Hello Laura!';
```

Run Code

Run PHP Online

Hello Laura!



Validare cod PHP on line

The screenshot shows a web interface for executing PHP code. The code in the editor is as follows:

```
1 <html>
2 <head>
3 <title>Online PHP Script Execution</title>
4 </head>
5 <body>
6 <?php
7     echo "<h1>Hello, PHP!</h1>\n";
8 ?>
9 </body>
10 </html>
```

The output in the 'Result' pane is:

```
$php main.php
<html>
<head>
<title>Online PHP Script Execution</title>
</head>
<body>
<h1>Hello, PHP!</h1>
</body>
</html>
```



Aplicatii complexe PHP

1. E-Commerce
2. Graphical User Interface: desktop GUI applications utilizand PHP extensions:
 - [PHP GTK](#) - This extension is a popular open source that implements the GIMP toolkit
 - [ZZEE PHP GUI](#) - A paid solution that allows you to turn your PHP scripts into Windows applications
3. Forum de discutii
 - [php BB](#)
 - [vBulletin](#)
 - [Pun BB](#)
4. Aplicatii Facebook
 - [Facebook developer's wiki](#)
5. Liste de email : Mailing Lists
6. PHP Photo Gallery
7. CMS:
 - [Drupal](#)
 - [Wordpress](#), [Joomla](#)
8. Grafice web: PHPChart



Aplicatie

Enunt: Creați o aplicație de tip magazin online utilizând instrumentele gratuite:

- ❑ <http://www.freewebstore.org>



- ❑ <http://www.webnode.ro/magazin-online/>



Aplicatie

Enunt: Creați o interfață web utilizând PHP care să conțină un meniu, un header și un footer realizate ca fișiere separate .php și incluse în interfață.

Enunt: Să se creeze o aplicație web care să definească două variabile de tip șir/string și să le afișeze pe ecran concatenate