**PHP Fundamentals**

**Task no 01 Embedding PHP into HTML file**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

?>

</body>

</html>

**Task no 02 php output to the browser**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

echo " ali kamran from gujranwala";

?>

</body>

</html>

**Task no 03 comments in php**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

//echo " ali kamran from gujranwala";

echo " ali kamran from gujranwala";

echo " ali kamran from gujranwala";

/\* echo " ali kamran from gujranwala";

echo " ali kamran from gujranwala"; \*/

echo " ali kamran from gujranwala";

?>

</body>

</html>

**Task no 04 variables in php**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

    $txt = "Hello world!";

    $x = 5;

    $y = 10.5;

    echo $txt;

    echo "<br>";

    echo $x;

    echo "<br>";

    echo $y;

    ?>

</body>

</html>

**Task no 05 Arithmetic operators**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Arithmetic Operators </h2>

<?php

$x = 10;

$y = 5;

echo "<h3> variable is 10 & 5 </h3>";

echo nl2br("\n Plus.       ");

echo $x + $y;

echo nl2br("\n Subtract .        ");

echo $x -$y ;

echo nl2br("\n Multiply.         ");

echo $x \* $y ;

echo nl2br("\n divide .       ");

echo $x / $y ;

echo nl2br("\n modules.       ");

echo $x % $y ;

echo nl2br("\n Exponential.       ");

echo $x \*\* $y ;

echo nl2br("\n");

?>

</body>

</html>

**Task no 06 Assignment operators**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$x = 50;

$y = 30;

echo "variable is 50 & 30";

echo nl2br("\n");

echo $x;

echo nl2br("\n");

echo $x += $y;

echo nl2br("\n");

echo $x -= $y;

echo nl2br("\n");

echo $x \*= $y;

echo nl2br("\n");

echo $x /= $y;

echo nl2br("\n");

echo $x %= $y;

?>

</body>

</html>

## Task no 07 Comparison Operators

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$x = 100;

$y = "100";

echo ($x == $y); // returns true because values are equal

echo nl2br("\n");

echo ($x === $y);

echo nl2br("\n");

echo ($x == $y);

echo nl2br("\n");

echo ($x != $y);

echo nl2br("\n");

echo ($x !== $y);

echo nl2br("\n");

echo ($x > $y);

echo nl2br("\n");

echo ($x < $y);

echo nl2br("\n");

echo ($x >= $y);

echo nl2br("\n");

echo ($x <= $y);

?>

</body>

</html>

## Task no 08 Increment / Decrement Operators

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$x = 10;

echo "variable value is 10";

echo nl2br("\n increment.");

echo ++$x;

echo nl2br("\n decrement.");

echo --$x;

?>

</body>

</html>

## Task no 09 Logical Operators

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$x = 100;

$y = 50;

if ($x == 100 and $y == 50) {

    echo "Hello world!";

}else {

echo "Good bye";

}

if ($x == 100 or $y == 50) {

    echo "Hello world!";

}else {

echo "Good bye";

}

?>

</body>

</html>

**Task no 10 string operator**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$txt1 = "Hello";

$txt2 = " world!";

echo $txt1 . $txt2;

$txt1 = "Hello";

$txt2 = " world!";

$txt1 .= $txt2;

echo nl2br("\n");

echo $txt1;

?>

</body>

</html>

**Task no 11 if statement**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$t = "hello";

if ($t = "hello") {

  echo "Have a good day!";

}

?>

</body>

</html>

**Task no 12 if else statement**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$t = 50;

if ($t > 60) {

  echo "Have a good day!";

} else {

  echo "Have a good night!";

}

?>

</body>

</html>

**Task no 13 if else if statement**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$t = 18;

if ($t < 10) {

  echo "Have a good morning!";

} elseif ($t < 20) {

  echo "Have a good day!";

} else {

  echo "Have a good night!";

}

?>

</body>

</html>

**Task no 14 switch statement**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2> PHP Assigment Operators </h2>

<?php

$favcolor = "green";

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 neither red, blue, nor green!";

}

?>

</body>

</html>

**Task no 15 while loop**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

​<?php

$x = 0;

while($x <= 100) {

  echo "The number is: $x <br>";

  $x+=10;

}

?>

</body>

</html>

**Task no 16 do while loop**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$x = 1;

do {

  echo "The number is: $x <br>";

  $x++;

} while ($x <= 5);

?>

</body>

</html>

**Task no 17 for loop**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

for ($x = 0; $x <= 10; $x++) {

  echo "The number is: $x <br>";

}

?>

</body>

</html>

**Task no 18 Single quotes vs. double quotes**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$fname = "ali";

$lname = "kamran";

echo "my name is $fname $lname"; // variable show its value in double quots

echo "<br>";

echo 'my name is $fname $lname'; // single quots variable treated is variable

?>

</body>

</html>

**Task no 19 die and exit function**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$site = "https://www.w3schools.com/";

fopen($site,"r")

or die("Unable to connect to $site");

$site = "https://www.w3schools.com/";

fopen($site,"r")

or exit("Unable to connect to $site");

?>

</body>

</html>

**Task no 20 function in php**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

function writeMsg() {

  echo "Hello world!";

}

writeMsg();

?>

</body>

</html>

**Task no 21 function with arguments**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

function familyName($fname, $year) {

  echo "$fname Refsnes. Born in $year <br>";

}

familyName("ali","1994");

familyName("ahmad","1996");

familyName("mozam","1998");

?>

</body>

</html>

**Task no 22 function with return value**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

function sum(int $x, int $y) {

  $z = $x + $y;

  return $z;

}

echo "5 + 10 = " . sum(5,10) . "<br>";

echo "7 + 13 = " . sum(7,13) . "<br>";

echo "2 + 4 = " . sum(2,4);

?>

</body>

</html>

**Task no 23 case sensitive in php**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h3>php is case sensitive language</h3>

<?php

$name = "kamran";

if($name == "Kamran"){

    echo "php is case sensitive";

}else{

    echo "you enter K capital in kamran word";

}

?>

</body>

</html>

**Task no 24 php constants**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h3>php is case sensitive language</h3>

<?php

// case-sensitive constant name

define("GREETING", "Welcome to W3Schools.com!");

echo GREETING;

?>

</body>

</html>

**Task no 25 date and time in php**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h3>php is case sensitive language</h3>

<?php

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

echo "The time is " . date("h:i:sa");

?>

</body>

</html>

Task no 26 array in php

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$cars = array("ali kamran", "gujranwala", "pakistan");

echo "my name is " . $cars[0] . " and i am from " . $cars[1] . " , " . $cars[2] . ".";

?>

</body>

</html>

Task no 27 Associative Arrays

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$age = array("ali"=>"28", "athar"=>"26", "ahmad"=>"24");

echo "ali is " . $age['ali'] . " years old. <br>";

echo "athar is " . $age['athar'] . " years old.<br>";

echo "ahmad is " . $age['ahmad'] . " years old.<br>";

?>

</body>

</html>

Task no 28 multidimensional arrays

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$cars = array (

  array("Volvo",22,18),

  array("BMW",15,13),

  array("Saab",5,2),

  array("Land Rover",17,15)

);

echo $cars[0][0].": In stock: ".$cars[0][1].", sold: ".$cars[0][2].".<br>";

echo $cars[1][0].": In stock: ".$cars[1][1].", sold: ".$cars[1][2].".<br>";

echo $cars[2][0].": In stock: ".$cars[2][1].", sold: ".$cars[2][2].".<br>";

echo $cars[3][0].": In stock: ".$cars[3][1].", sold: ".$cars[3][2].".<br>";

?>

</body>

</html>

Task no 29 sorting array in php

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$numbers = array(4, 6, 2, 22, 11);

sort($numbers);

$arrlength = count($numbers);

for($x = 0; $x < $arrlength; $x++) {

  echo $numbers[$x];

  echo "<br>";

}

$age = array("Peter"=>"35", "Ben"=>"37", "Joe"=>"43", "ali"=>"30");

asort($age);

foreach($age as $x => $x\_value) {

  echo "Key=" . $x . ", Value=" . $x\_value;

  echo "<br>";

}

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

ksort($age);

foreach($age as $x => $x\_value) {

  echo "Key=" . $x . ", Value=" . $x\_value;

  echo "<br>";

}

?>

</body>

</html>

Task no 30 math function in php

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

echo(pi()); // returns 3.1415926535898

echo "<br>";

echo(min(0, 150, 30, 20, -8, -200));  // returns -200

echo "<br>";

echo(max(0, 150, 30, 20, -8, -200));  // returns 150

echo "<br>";

echo(abs(-6.7));  // returns 6.7

echo "<br>";

echo(sqrt(64));  // returns 8

echo "<br>";

echo(round(0.60));  // returns 1

echo "<br>";

echo(round(0.49));  // returns 0

?>

</body>

</html>

Task no 31 static variables in php

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

function myTest() {

  static $x = 0;

  echo $x;

  $x++;

}

/\* Normally, when a function is completed/executed, all of its variables are deleted. However,

sometimes we want a local variable NOT to be deleted. We need it for a further job \*/

myTest();

echo "<br>";

myTest();

echo "<br>";

myTest();

?>

</body>

</html>

Task no 32 php random number

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

​<?php

echo(rand() . "<br>");

echo(rand() . "<br>");

echo(rand(10,100));

?>

</body>

</html>

Task no 33 php random string

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<h2>binary to hexadecimal</h2>

​<?php

$str = bin2hex("Hello World!");

echo($str);

?>

</body>

</html>

Task no 34 implode and explode function

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$arr = array('Hello','World!','Beautiful','Day!');

echo implode(" ",$arr);

echo "<br>";

$str = "Hello world. It's a beautiful day.";

print\_r (explode(" ",$str));

?>

</body>

</html>

Task no 35 swap variable value

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$a = 15;

$b = 27;

// Swap Logic

echo "The number before swapping is:\n";

echo "Number a =".$a." and b=".$b;

$temp = $a;

$a = $b;

$b = $temp;

echo "<br>The number after swapping is: ";

echo "Number a =".$a." and b=".$b."\n";

?>

</body>

</html>

Task no 36 getting server information

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

echo $\_SERVER['PHP\_SELF'];

echo "<br>";

echo $\_SERVER['SERVER\_NAME'];

echo "<br>";

echo $\_SERVER['HTTP\_HOST'];

echo "<br>";

echo $\_SERVER['HTTP\_USER\_AGENT'];

echo "<br>";

echo $\_SERVER['SCRIPT\_NAME'];

?>

</body>

</html>

Task no 37 getting visitor IP address

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

echo "user ip " .$\_SERVER['REMOTE\_ADDR'];

?>

</body>

</html>

Task no 38 Better way of getting visitor's IP in php

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

function getUserIP()

{

    // Get real visitor IP behind CloudFlare network

    if (isset($\_SERVER["HTTP\_CF\_CONNECTING\_IP"])) {

              $\_SERVER['REMOTE\_ADDR'] = $\_SERVER["HTTP\_CF\_CONNECTING\_IP"];

              $\_SERVER['HTTP\_CLIENT\_IP'] = $\_SERVER["HTTP\_CF\_CONNECTING\_IP"];

    }

    $client  = @$\_SERVER['HTTP\_CLIENT\_IP'];

    $forward = @$\_SERVER['HTTP\_X\_FORWARDED\_FOR'];

    $remote  = $\_SERVER['REMOTE\_ADDR'];

    if(filter\_var($client, FILTER\_VALIDATE\_IP))

    {

        $ip = $client;

    }

    elseif(filter\_var($forward, FILTER\_VALIDATE\_IP))

    {

        $ip = $forward;

    }

    else

    {

        $ip = $remote;

    }

    return $ip;

}

$user\_ip = getUserIP();

echo $user\_ip;

?>

</body>

</html>

Task no 39 blocked IP address

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

if ( !file\_exists('blocked\_ips.txt') ) {

    $deny\_ips = array(

     '127.0.0.1',

     '192.168.1.1',

     '83.76.27.9',

     '192.168.1.163'

    );

   } else {

    $deny\_ips = file('blocked\_ips.txt');

   }

   // read user ip adress:

   $ip = isset($\_SERVER['REMOTE\_ADDR']) ? trim($\_SERVER['REMOTE\_ADDR']) : '';

   // search current IP in $deny\_ips array

   if ( (array\_search($ip, $deny\_ips))!== FALSE ) {

    // address is blocked:

    echo "Your IP adress (".$ip.") was blocked!";

    exit;

   }

?>

</body>

</html>

Task no 40 include external files

First, create a file that will hold the variables. For this example, it is called "variables.php."

//variables.php

<?php

 $name = 'Loretta';

 $age = '27';

 ?>

Use this code to include the "variables.php" file in the second file called

"report.php."

//report.php

 include 'variables.php';​

 // or you can use the full path; include 'http://www.yoursite.com/folder/folder2/variables.php';

 print $name . " is my name and I am " . $age . " years old.";

 ?>

Task no 41 md5 hash in php

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$str = "Hello";

echo "The string: ".$str."<br>";

echo "TRUE - Raw 16 character binary format: ".md5($str, TRUE)."<br>";

echo "FALSE - 32 character hex number: ".md5($str)."<br>";

?>

</body>

</html>

Task no 42 Useful string functions

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

echo strlen("Hello world!");

echo "<br>";

echo str\_word\_count("Hello world!");

echo "<br>";

echo strrev("Hello world!");

echo "<br>";

echo str\_replace("world", "Dolly", "Hello world!");

?>

</body>

</html>

Task no 43 useful array functions

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

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

print\_r(array\_change\_key\_case($age,CASE\_UPPER));

?>

</body>

</html>

Task no 44 foreach loop in php

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

<?php

$colors = array("red", "green", "blue", "yellow");

foreach ($colors as $value) {

  echo "$value <br>";

}

?>

</body>

</html>