W12 – PHP – Web Programming III

Basic Structures of Programming

Course Objectives

Constants

Control Structures

Functions

Strings / Dates

Arrays:
- Simple array
- Associative array
- Iterating through arrays

Inclusion / Requiered

Using Constants

- ## define() : defined the moment of execution

- ## const : defined the moment of compilation

```php
<?php
// declaring define()
//define("name" , value) name should be in upper case
define("SITE_NAME", "E-Drone Sale");
define("CONSTANT_DOUBLE", 25.96);
define("CONSTANT_INT", 45);
define("CONSTANT_BOOL", false);

//declaring const
const VALUE_THAT_DOES_NOT_CHANGE = "hello world";
const SITE_NAME_2 = "hello world";
const CURRENCY_CAD_US = 0.7614;
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title><?=SITE_NAME?></title>
    </head>
    <body>
    <h1>Display define() Constants </h1>
    <ul>

        <li>Const 1 :    <?=SITE_NAME?></li>
        <li>Const 2 :    <?=CONSTANT_DOUBLE?></li>
        <li>Const 3 :    <?=CONSTANT_INT?></li>
        <li>Const 4 :    <?=(CONSTANT_BOOL  ? "it is true"  : "it is false")?
></li>
</ul>
<h1>Display const Constants</h1>
<ul>

        <li>Const 1 :    <?=VALUE_THAT_DOES_NOT_CHANGE?></li>
        <li>Const 2 :    <?=SITE_NAME_2?></li>
        <li>Const 3 :    <?=CURRENCY_CAD_US?></li>
        </ul>

</body>
</html>
```

if

With echo

```php
<?php
$isEtudiant = false;
$name = " ISI Student";
?>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Title</title>
</head>
<body>
<?php if($isStudent){

    echo "<h1> welcome   </h1>";
    echo "<br />";
    echo $name;
    }
    else "<h1> There are no students </h1>";
    {
    echo
    }
    ?>
</body>
</html>
```

With HTML

```php
<?php
$isStudent = false;
$name = "ISI Student";
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
</head>
<body>
<?php
    if($isStudent){ ?>
    <h1> Welcome </h1>
    <br />
    <?=$name?>
    <?php}else {?>
    <h1>There are no students </h1>
    <?php}
?>
</body>
</html>
```

switch case

```php
<?php
$name = " ISI Student";
$leisure = "fishing"
?>
<!DOCTYPE html>
<?php
//php can be placed anywhere
$message;
switch ($leisure){
case "fishing":
$message = "I love fishing";
break; case "rando":
$message = "I love walking";
break; case "sail":
$message = "I love sailing";
break; case "race":
$message = "I love running";
break;
}
?>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Title</title>
</head>
<body>
<h1>Hello <?=$name?></h1>
<p>Your message is: <?=$message?></p>
</body>
</html>
```

PHP Functions

- PHP Functions

  - see documentation because there are more than 1000 built-in functions.

  - echo date("d-M-y h:m", time());

- User Defined Functions

```php
<?php

//function without return value
function functionName($param1, $param2){
echo "this is the function's body";
echo 'param1 :'.$param1 . ' param2: ' .
$param2;
}
functionName("foo", "bar");

//fonction with a return value
function returnFunctionName($param1){
return "this is the body with a param
$param1";
}
echo returnFunctionName("foo");
```

Strings " " != ' '

```php
<?php
//Strings can be written two ways.
$aString = "I am a string";
$aString2 = 'I am a string';
//The above syntax yeilds the same result, but this isn't always the case

/**** concatenation ****/
// 2 ways to concatenate
// using " "
$name = "ISI Student";
$concatenation1 = "Hello $name how is it going";
echo $concatenation1;
// result: Hello ISI Student how is it going


// using ' '
$concatenation2 = 'Hello '.$name .' how is it going';
echo $concatenation2;
//result: Hello ISI Student how is it going


// using ' ' can be dangerous when used improperly
$concatenation3 = 'Hello $name how is it going';
echo $concatenation3;
//result: Hello $name how is it going
```

- Both notations are used, but the second notation (involving ' ' and .) is more readable and makes the concatenation more clear.

- PHP has a bunch of functions that perform operations on string.

date

- **Timezone** *(configuring the server)*
  - Set in the php.ini file with date.timezone:
  - Canada/Eastern
  - **date_default_timezone_get()
    date_default_timezone_set()**
- **Timestamp**
  - time() is depricated, but returns the date as an int
  - date() allows the date to be formatted
- **DateTime**
  - procedural version and object

simple array

```php
<?php
//declaration
//first way
$students1  = array("stu1","stu2","stu3","stu4");

//second way
$students2  = ["stu5","stu6","stu7","stu8"];


//third  way
$students3[]  = "stu9";
$students3[]  = "stu10";
$students3[]  = "stu11";
$students3[]  = "stu12";


//accessing values
echo $students1[0];
echo $students2[1];
echo $students3[2];
```

associative array

```php
<?php
//declaration
//first way
$adresse1 = array(
"nb" => 255,
"rd" => "Boul Cremazie Est","city" => "Montreal","zipcode" =>
"H2E-1M2"
);

//second way
$adresse2 = [
"nb" => 255,
"rd" => "Boul Cremazie Est","city" => "Montreal","zipcode" =>
"H2E-1M2"
];

//third way
$adresse3["nb"] = 255;
$adresse3["rd"] = "Boul Cremazie Est";
$adresse3["city"] = "Montreal";
$adresse3["zipcode"] = "H2E-1M2";

//accessing values
echo $adresse1["nb"];
echo $adresse2["rd"];
echo $adresse3["city"];
echo $adresse1["zipcode"];
```

while loop

```php
<?php
$name = "ISI student";
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
</head>
<body>
<?php
$iterator = 0;
    while($iterator < 10){
        echo "welcome";
        echo $name;
        echo "<br />";
        $iterator++;
    }
?>
</body>
</html>
```

```php
<?php
$name = "ISI student";
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
</head>
<body>
<?php
    $iterator = 0;
    while($iterator < 10){?>
        <p>welcome <?=$name?></p>
    <?php
        $iterator++;
    }
?>
</body>
</html>
```

for loop

```php
<?php
$name  = "ISI student";
?>
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
</head>
<body>
<?php

    $iterateur = 0;
    for($i = 0;$i < 5; $i++){
        echo "hello ";
        echo $name;
        echo "<br />";
    }
?>
</body>
</html>
```

```php
<?php
$name = "ISI student";
?>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<title>Title</title>
</head>
<body>
<?php
    for($i = 0 ; $i < 5 ; $i++){?>
        <p>hello <?=$name?></p>
    <?php}
?>
</body>
</html>
```

foreach loop with simple array

```php
<?php
//simple arr
$students;

for($i = 40; $i < 50; $i++)
$students[] = 'stud'.$i;

foreach ($students as $stud){
echo $stud . '<br/>';
}
```

boucle foreach(tableau associatif)

```php
//tab associatif
$adresse2 = [
    "nb" => 255,
    "rd" => "Boul Cremazie Est",
    "city" => "Montreal",
    "zipcode" => "H2E-1M2"
];

foreach ($adresse2 as $value)
    echo $value;

foreach ($adresse2 as $key => $value)
    echo $key . ':' . $value . '<br />';
```

include / require

allows you to include files in another file.

include will continue to execute the script if included file is not found

require will stop script execution if required file is not found

```html
<!DOCTYPE html>
<html lang="en">
<head>
        <meta charset="UTF-8">
        <title>Title</title>
  <link type="text/css"
rel="stylesheet"
href="style.css" />
</head>
<body>
<?php require ("header.php") ?>

<!--site template -->
<?php include("body.php") ?>

<?php require("footer.php") ?>
</body>
</html>
```