

Lecture 06 – part II

# PHP – Arrays and Functions

IT1100 Internet and Web technologies

# Content

1. Arrays
2. Functions

# 5. Arrays

What is an Array?

- An array is a special variable, which can hold more than one value at a time.

There are two types of arrays in PHP

1. Numeric (indexed) Arrays
2. Associative Arrays

Create an Array in PHP

- In PHP, the array() function is used to create an array:

**array();**

# 5. Numeric (indexed) Arrays

- //Declare array  
\$n=array();

- //Assign values

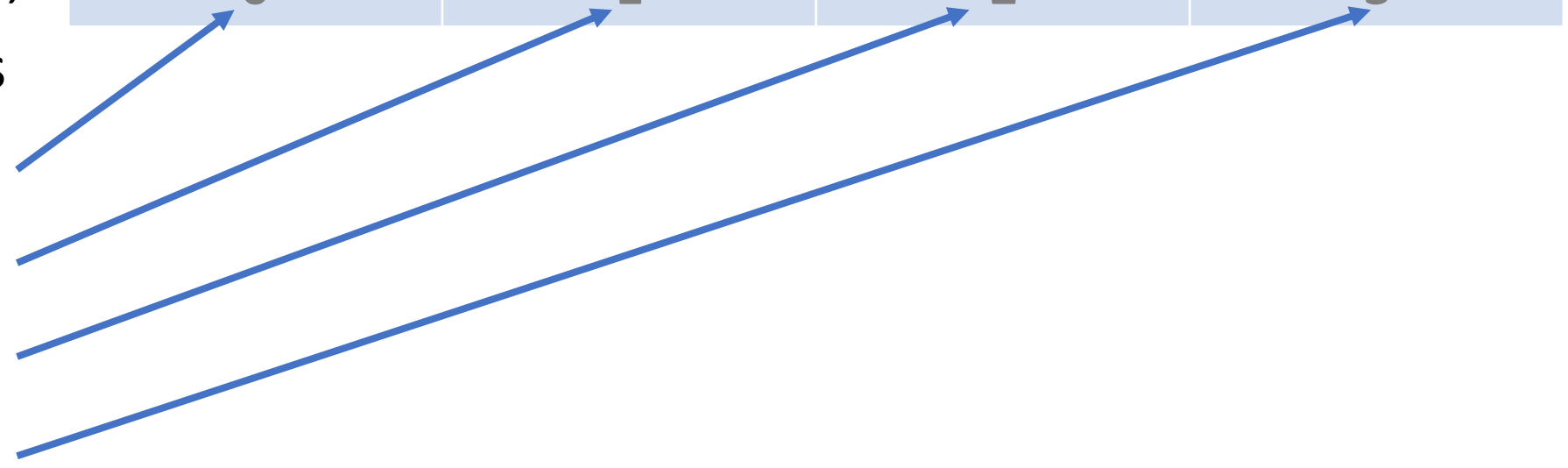
\$n[0] = 5;

\$n[1] = 2;

\$n[2] = 8;

\$n[3] = 1;

5	2	8	1
0	1	2	3



## 5. Numeric (indexed) Arrays

//Declare and initialize array in a single statement

```
$n=array(2,5,8,5);
```

Value	→	2	5	8	5
Index	→	0	1	2	3

- Can read the values of array using the index

```
echo $n[2] + $n[3] ;
```

2	5	8	5
0	1	2	3

# Loop Through an Indexed Array

```
<!DOCTYPE html>
```

Declare the array

```
<html>
```

```
<body>
```

```
<?php
```

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

```
    foreach ($colors as $value) {
```

```
        echo "$value <br>";
```

```
    }
```

```
?>
```

```
</body>
```

```
</html>
```

Loop  
through the  
Array

Output ?

red  
green  
blue  
yellow

# Loop Through an Indexed Array

Use a for loop to loop through and print all the values of an indexed array

```
<!DOCTYPE html>
<html>
<body>
<?php
    $subjects=array("ITA", "DBMS", "ST");
    $arrrlength=count($subjects);

    for($x=0;$x<$arrrlength;$x++) {
        echo $subjects [$x];
        echo "<br>";
    }

?>
</body>
</html>
```

Declare the array

Get the array length

Loop through the Array

**Output**

ITA  
DBMS  
ST

# 5. Associative Arrays

- For the index
  - Instead of numerical values
  - we can give string IDs for each and every item

```
$marks = array("Maths"=>32, "Web"=>30);  
echo $marks["Maths"];  
echo $marks["Web"];
```



# 5. Associative Arrays

```
$marks = array();
```

```
$marks["Maths"]=65;
```

```
$marks["Web"]=23;
```

```
$marks["JAVA"]=76;
```

65	23	76
Maths	Web	JAVA

← Value

← Key/ID

```
echo "Maths: " . $marks["Maths"]. "<br/>".
```

```
"Web: " . $marks["Web"]. "<br/>".
```

```
"JAVA: " . $marks["JAVA"]. "<br/>";
```

# Loop Through an Associative Array

To loop through and print all the values of an associative array, you could use a foreach loop, like this:

```
<!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>";
    }
?>
</body>
</html>
```

**Output ?**

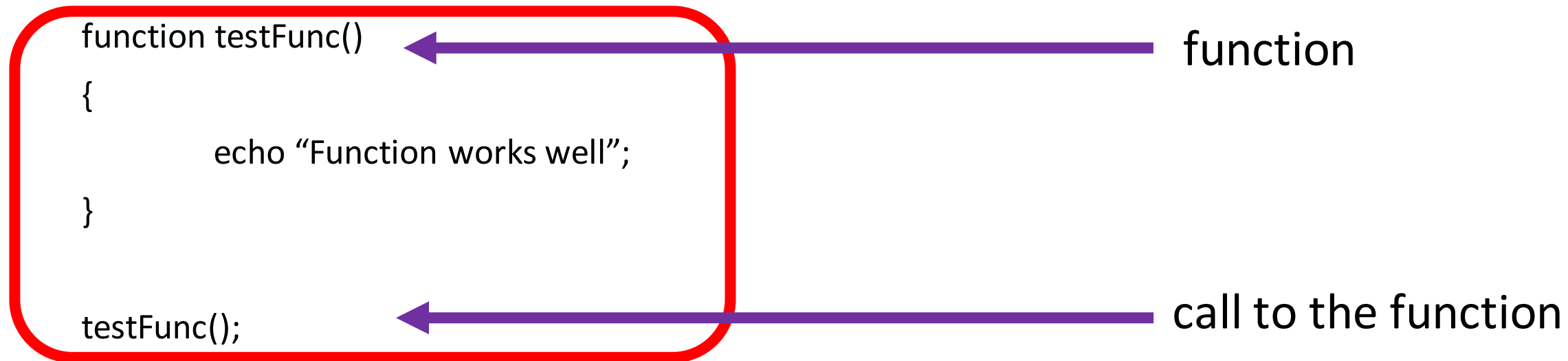
```
Key=Peter, Value=35
Key=Ben, Value=37
Key=Joe, Value=43
```

# 6. Functions

- Function is a block of statements that can be used repeatedly in a program.
- PHP Built-in Functions
  - PHP has over 1000 built-in functions that can be called directly, from within a script, to perform a specific task.
- PHP User Defined Functions
  - Besides the built-in PHP functions, it is possible to create your own functions.

## 6. User Defined Functions

- function is a block of statements that can be used repeatedly in a program.
- A function will not execute immediately when a page loads.
- A function will be executed by a call to the function.



## 6. User Defined Functions

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<?php
```

```
function writeMsg() {
```

```
    echo "Hello world!";
```

```
}
```

```
writeMsg();
```

```
?>
```

```
</body>
```

```
</html>
```

function

call the function

## 6. User Defined Functions

### Global variables

- Subject to the context in which a variable is declared it will have a scope that is either local or global.
- If it is declared within the constraints of a function it will have local scope and will not be recognized outside of its constraints.
- If you wish to declare a variable with scope beyond its constraints use the term **global**.

## 6. User Defined Functions

### Global variables

```
$name = "Kamal";  
$age = 22;  
  
function testFunc()  
{  
    global $name, $age;  
    $greet = "Hello ";  
    echo $greet . "Name: " . $name . " - Age: " . $age;  
}  
  
testFunc();
```

**Output ?**

Hello Name: Kamal - Age: 22

## 6. User Defined Functions Parameters

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

<?php
function sum($x, $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>
```

Output ?

```
5 + 10 = 15
7 + 13 = 20
2 + 4 = 6
```



# Summary

## 1. Arrays

1. Index Array
2. Associative Array

## 2. Functions

1. Built-in functions
2. User defined functions