
Ch3 - Lesson 4: Arrays in PHP

ARRAYS IN PHP

■ Types of arrays:

- **Numeric array:** an array with a numeric index
- **Associative array:** stores data with user defined **{key=>value}** pairs
- **Multidimensional array:** an array containing one or more arrays and values are accessed using multiple indices.
 - Can be numeric or associative

ARRAYS IN PHP

■ Numeric arrays: Creating and accessing

```
$numbers = array( 1, 2, 3, 4, 5);  
    echo "Value of the array:";  
foreach( $numbers as $value )  
{  
    echo "$value ";  
}
```

Value of the array: 1 3 2 4 5

ARRAYS IN PHP

- **Numeric arrays: Creating and accessing**

- **OR**

```
$numbers=array();  
$numbers[0] = "one";  
$numbers[1] = "two";  
$numbers[2] = "three";  
echo "Value of the array:";  
foreach( $numbers as $value )  
{  
echo "$value ";  
}
```

Value of the array: one two three

ARRAYS IN PHP

■ **Associative arrays:**

- Type of array which stores data using named index called “**KEY**”
- Best alternative of numeric arrays in times when numeric index is not so important.
- Because we can use strings as numeric indices in associative arrays

ARRAYS IN PHP

■ Example:

```
$age = array("Alemu"=>"35", "Tsegaye"=>"37",  
"Lemma"=>"43");
```

```
$person=array(["name"=>"Abebe", "dept"="SE",  
"age"=>23], ["name"=>"Birtukan", "dept"=>"CS",  
"age"=>26]);
```

ARRAYS IN PHP

■ OR:

```
$age[ 'Alemu' ] = "35";  
$age[ 'Tsegaye' ] = "37";  
$age[ 'Lemma' ] = "43";
```

ARRAYS IN PHP

■ Accessing assoc. array element

```
<?php
$age
= array("Alemu"=>"35", "Tsegaye"=>"37", "Lemma"=>"
43");
echo "Alemu is " . $age['Alemu'] . " years old.";
?>
```

ARRAYS IN PHP

■ Looping through an associative array

```
<?php
$age
= array("Alemu"=>"35", "Tsegaye"=>"37", "Lemma"=>"43");

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

ARRAYS IN PHP

■ **Multidimensional arrays**

- An array which containing one or more arrays (array of arrays)
- Two, three, four, five dimensional arrays are available but more than three dimensions are hard to manage
- Dimension of arrays determined by its number of indices

ARRAYS IN PHP

■ Two-dimensional arrays

Name	Stock	Sold
Volvo	22	18
BMW	15	13
Saab	5	2
Land Rover	17	15

ARRAYS IN PHP

■ Two-dimensional arrays

```
$cars = array  
(  
    array("Volvo", 22, 18),  
    array("BMW", 15, 13),  
    array("Saab", 5, 2),  
    array("Land Rover", 17, 15)  
);
```

```
$cars=array(["name"=>"Volvo","stock"=>22,"sold"=>18], ["n  
ame:=>"BMW","stock"=>15,"sold"=>13], [...]);
```

ARRAYS IN PHP

■ Two-dimensional arrays

```
<?php
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>";
?>
```

ARRAYS IN PHP

■ Two-dimensional arrays

- We can also use a nested **for** loop to get the elements of the **\$cars** array.

```
<?php
for ($row = 0; $row < 4; $row++) {
    echo "<p><b>Row number $row</b></p>";
    echo "<ul>";
    for ($col = 0; $col < 3; $col++) {
        echo "<li>".$cars[$row][$col]."</li>";
    }
    echo "</ul>";
}
?>
```

ARRAYS IN PHP

■ Two-dimensional arrays

Row number 0

- Volvo
- 22
- 18

Row number 1

- BMW
- 15
- 13

Row number 2

- Saab
- 5
- 2

Row number 3

- Land Rover
- 17
- 15

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Question:

Use foreach loop to extract the values of the above array.



thankYou();