Web Design and Programming (0107558)
Internet Programming (0107571)[1]

PHP Arrays

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[1]Michael Mendez. *The Missing Link: An Introduction to Web Development and Programming*. Open SUNY Textbooks 2014.

Arrays in PHP

Array

- An array stores multiple values in one single variable.
- Example

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

Arrays in PHP

Types of arrays

1. Indexed arrays - Arrays with a numeric index
2. Associative arrays - Arrays with named keys
3. Multidimensional arrays - Arrays containing one or more arrays

Length of an array

count($arr) function returns the length of $arr.

Arrays in PHP

Indexed Arrays

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

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

Arrays in PHP

Associative Arrays

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

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

Arrays in PHP

Multidimensional Arrays

```php
<?php
   $prod=array(
        'paper'=>array(
            'copier'=>"Copier &multipurpose",
            'inkjet'=>"Inkjet Printer",
            'laser'=>"Laser Printer"),
         'pens'=>array(
             'ball'=>"Ball Point",
             'marker'=>"Markers")
   );
?>

echo $prod["pens"]["marker"];
```

Arrays in PHP

Array Functions

- ▶ array_key_exists($key,$arr). Returns TRUE if key is set in the array.
- ▶ isset($arr[$key]). Returns TRUE if key is set in the array.
- ▶ count($arr). Returns the number of elements in the array.
- ▶ is_array($arr). Returns TRUE if a variable is an array.
- ▶ sort($arr). Sorts the array values (loses key).
- ▶ ksort($arr). Sorts the array by key.
- ▶ asort($arr). Sorts array by value, keeping key association.
- ▶ shuffle($arr). Shuffles the array into random order.

Arrays in PHP

Null coalescing operator

```
$username=$_GET['user]??'nobody';
```

This is equivalent to:

```
$username=isset($_GET['user'])?$_GET['user']:'nobody';
```

Arrays in PHP

Exploding an array

Example:

```php
$inp="This is a sentence with seven words";
$tmp=explode(' ',$inp);
print_r($tmp);

Array(
    [0]=>'This'
    [1]=>'is'
    [2]=>'a'
    [3]=>'sentence'
    [4]=>'with'
    [5]=>'seven'
    [6]=>'words'
)
```

Arrays in PHP

Demo
2-array.php

Arrays in PHP

$_GET array

- Every parameter passed through the URL is stored in $_GET.
- Example:
  ```
  <pre>
  <?php
      print_r($_GET);
  ?>
  </pre>
  ```
- "http://localhost/php/globalget.php?x=2&y=4"
- Output:
  ```
  Array
  (
      [x] => 2
      [y] => 4
  )
  ```

Arrays in PHP

Demo
3-globalget.php

Arrays in PHP

Quiz - 1

- In PHP arrays can either be key / value (i.e. an associative array) or indexed by integers (i.e. a linear array).
    - True
    - False
- Which symbol is used to associate a key to a value in an associative array?
    - $>>$
    - $=>$
    - $->$
    - $==$
- Fill in the blank to echo 'Arrays'

    ```
    $stuff=array('course '=>'PHP-Intro','topic'=>'Arrays');
    echo _____;
    ```

    - $stuff['Arrays']
    - $stuff['course']
    - $stuff[1]
    - $stuff['topic']

Arrays in PHP

Quiz - 2

- ▶ What is the output of

  ```
  $stuff=array('course'=>'PHP-Intro','topic'=>'Arrays');
  echo isset($stuff['section']);
  ```

    - ▶ 0
    - ▶ False
    - ▶ There is no output
    - ▶ True
    - ▶ 1

- ▶ In PHP you cannot make an array of associative arrays.
    - ▶ True
    - ▶ False

- ▶ The [   ] function is used to rearrange an array in random order.

Arrays in PHP

Quiz - 3

- ▶ Which of these are built-in sorting functions provided by PHP?
    - ▶ sort()
    - ▶ asort()
    - ▶ ksort()
    - ▶ isort()
- ▶ What function is used to sort the array in alphabetical order of the keys?
- ▶ What function is used to sort the values in array and keep the keys intact?
- ▶ What function can be used to split a string into an array words based on a delimiter? For instance, create a three element array from the string 'I am great!!!'.
- ▶ var_dump will display the name, key/value pairs, and data types of a variable.
    - ▶ True
    - ▶ False