

PHP Arrays

CSC 242, Web Programming

PHP Arrays

- In PHP an array is an ordered map that associates keys with values
- PHP has two types of arrays
 - Numerically indexed arrays use integers as keys
 - Associative arrays typically use strings as keys

Constructing Arrays with Integer Keys

- push consecutive values to the array

```
<?php
    $a[] = "one";
    $a[] = "two";
    $a[] = "three";
?>
```

- using explicit indices

```
<?php
    $a[0] = "one";
    $a[1] = "two";
    $a[2] = "three";
?>
```

Associative Arrays

- Associative arrays map keys other than integers to values

```
<?php
    $b['one'] = 1;
    $b['two'] = 2;
    $b['three'] = 3;
?>
```

- If multiple elements are declared with the same key, then only the value of the last element is used

Key Casts

- A string containing an integer will be cast to an integer
- A float is cast to an integer
- A bool is cast to an integer
- The null value will be cast to an empty string
- Arrays and objects cannot be used as keys

Printing Arrays

- The `print_r` function prints a human readable representation of an array
- An element of an array can be used as a variable for string interpolation purposes

```
echo "$a[0]";
```

- If the key is not an integer then the array element must be surrounded by curly braces for string interpolation

```
echo "${b['one']}";
```

The array keyword

- Arrays can be assigned with the array keyword

```
<?php
```

```
    $a = array("one", "two", "three");
```

```
    $b = array('one' => 1,  
              'two' => 2,  
              'three' => 3);
```

```
?>
```

The foreach loop

- The foreach loop can be used to iterate through the values of an array
- Arrays with integer keys:

```
foreach($a as $element) {  
    echo "$element";  
}
```

- Associative arrays:

```
foreach($b as $key => $value) {  
    echo "$key: $value";  
}
```


Multidimensional Arrays

- The value of a key can be an array

```
$tic_tac_toe = array(  
    array('X', ' ', '0'),  
    array('0', '0', 'X'),  
    array('X', '0', ' ')  
);
```

Some Useful Array Functions

- `is_array` checks if a variable is an array type
- `count` returns the number of elements in an array
- `sort` performs an in-place sort of an array
- `explode` converts a string into an array

Superglobals

- Superglobals are predefined variables that are provided by the PHP environment
- `$_GET`: variables passed to the current script via the HTTP GET method
- `$_POST`: variables passed to the current script via the HTTP POST method
- `$_COOKIE`: variables passed to the current script via HTTP cookies
- `$_SESSION`: session variables available to the current script