

PHP 101

WHAT IS PHP?

PHP is a popular general-purpose scripting language that is especially suited to web development.

Fast, flexible and pragmatic, PHP powers everything from your blog to the most popular websites in the world.

HISTORY LESSON

PHP originally meant Personal Home Page, but now PHP:
Hypertext Preprocessor.

Files end with .php and not .html

WHY PHP?

Why should I learn this!?

```
<?php echo "Andre Dublin"; ?>
```

Andre Dublin

PHP TAGS

All PHP code exists within this tag.

```
<?php ?> // correct syntax
```

```
<?php> <?> // incorrect syntax
```

ECHO

You will see and use this... a lot!

MATH

$$18 * 527$$

STRINGS

A string is a word or phrase between quotes: "Hey you guys!"

```
<?php echo "Hey you guys!"; ?>
```

```
<?php echo "Hey" . "you" . "guys" . "!"; ?>
```


VARIABLES

A variable is just a name PHP uses to keep track of a value.

```
<?php $total = 1 + 2 + 8 + 5 + 13 + 3 + 21; ?>  
      <?php echo $total; ?> // 53
```

The = sign is called **assignment operator**

```
<?php $year = 2014; ?>
```

```
<?php $myFirstVariable = 0; ?>
```

SEMICOLONS

;

COMMENTS

```
<!-- I'm a comment -->
```

```
<?php // I'm a comment ?>
```

ALL TOGETHER NOW

CONTROL & FLOW

MAKING COMPARISONS

```
< ex. 6 < 7 // less than
```

```
> ex. 7 > 6 // greater than
```

```
== ex. 2 == 2 // equal to
```

```
<= ex. 2 <= 3 // less than or equal to
```

```
>= ex. 3 >= 2 // greater than or equal to
```

```
!= ex. 6 != 3 // not equal to
```

IF STATEMENTS

ELSE

```
<?php
if (10 < 5) {
    echo "Is less than five";
} else {
    echo "Is not less than five";
}
?>
```


ELSEIF

```
<?php
if ($guess < $number) {
    echo "Your guess is too low";
} elseif ($guess > $number) {
    echo "Your guess is too high";
} else {
    echo "You guessed right!";
}
?>
```

ALL TOGETHER NOW

SWITCH

```
<?php
$value = 2;
switch ($value) {
    case 0:
        echo 'The value is 0';
        break;
    case 1:
        echo 'The value is 1';
        break;
    case 2:
        echo 'The value is 2';
        break;
    default:
        echo "The value isn't 0, 1 or 2";
?>
```

SWITCH SYNTAX

```
<?php
$value = 2;
switch ($value) {
    case 0:
        echo 'The value is 0';
        break;
    case 1:
        echo 'The value is 1';
        break;
    case 2:
        echo 'The value is 2';
        break;
    default:
        echo "The value isn't 0, 1 or 2";
?>
```

MULTIPLE CASES

```
<?php
if ($i == 1 || $i == 2 || $i == 3) {
    echo '$i is somewhere between 1 and 3.';
}
?>
```

```
<?php
switch ($i) {
    case 1:
    case 2:
    case 3:
        echo '$i is somewhere between 1 and 3.';
        break;
}
?>
```

ALTERNATIVE SYNTAX

```
<?php
switch($i):
    case 1:
    case 2:
    case 3:
        echo '$i is somewhere between 1 and 3.';
        break;
endswitch;
?>
```

SWITCH IT YOURSELF

ARRAYS?

```
<?php  
$myArray = array("Bread", "Cheese", "Turkey");  
?>
```


ARRAY SYNTAX

```
<?php  
$myArray = array("Bread", "Cheese", "Turkey");  
?>
```

```
<?php  
// as of PHP 5.4  
$myArray = ["Bread", "Cheese", "Turkey"];  
?>
```

YOUR FIRST ARRAY

ACCESSING ARRAY ELEMENTS

```
<?php
$numbers = array(1, 2, 3, 4, 5);
echo $numbers[3]; // 4
?>
```

```
<?php
$numbers = array(1, 2, 3, 4, 5);
echo $numbers{3}; // 4
?>
```

MODIFYING ARRAY ELEMENTS

```
<?php
$colors = array("red", "blue", "green");
$colors = array(
    0 => "red",
    1 => "blue",
    2 => "green"
);
?>
```

```
<?php
$numbers = array(1, 2, 3, 4, 5);
$numbers[3] = "Andre"; // array(1, 2, 3, "Andre", 5);
echo $numbers[3]; // Andre
?>
```

DELETING ARRAY ELEMENTS

```
<?php
$numbers = array(1, 2, 3, 4, 5);
$numbers[3] = "Andre"; // array(1, 2, 3 , "Andre", 5);
echo $numbers[3]; // Andre

unset($numbers[3]); // array(1, 2, 3, , 5);
echo $numbers[3];

unset($numbers);
echo $numbers;
?>
```

WHAT IS A LOOP?

```
<?php
for ($i = 0; $i < 10; $i++) {
    echo "<p>$i</p>";
}
// 0
// 1
// 2
// 3
// 4
// 5
// 6
// 7
// 8
// 9
?>
```

FOR LOOP SYNTAX

YOUR FIRST FOR LOOP

FOREACH LOOPS

```
<ul>
<?php
$langs = array("PHP", "Ruby", "Golang", "C#", "Java", "R", "Matlab", "Octave")

foreach ($langs as $lang) {
    echo "<li>"$lang"</li>";
}
?>
</ul>
```

YOUR OWN FOREACH

WHILE LOOPS

We are going to flip a coin until we get three heads in a row!

```
<?php
    $headCount = 0;
    $flipCount = 0;
    while ($headCount < 3) {
        $flip = rand(0, 1);
        $flipCount++;

        if ($flip) {
            $headCount ++;
            echo "<div class='coin'>H</div>";
        } else {
            $headCount = 0;
            echo "<div class='coin'>T</div>";
        }
    }
    echo "<p>It took {$flipCount} flips!</p>";
?>
```

WHILE LOOP SYNTAX

```
<?php
    $headCount = 0;
    $flipCount = 0;
    while ($headCount < 3) {
        $flip = rand(0, 1);
        $flipCount++;

        if ($flip) {
            $headCount ++;
            echo "<div class='coin'>H</div>";
        } else {
            $headCount = 0;
            echo "<div class='coin'>T</div>";
        }
    }
    echo "<p>It took {$flipCount} flips!</p>";
?>
```

DO WHILE

```
<?php
    $flipCount = 0;

    do {
        $flip = rand(0, 1);
        $flipCount++;

        if ($flip) {
            $headCount ++;
            echo "<div class='coin'>H</div>";
        } else {
            $headCount = 0;
            echo "<div class='coin'>T</div>";
        }
    } while ($flip);

    $verb = "were";
    $last = "flips".
```

ALL TOGETHER NOW