

# NFL

## Introduction to PHP

(and a taste of web and WordPress development)

### Let's talk some terminology

- **Client**
  - The user's machine.
  - The CONSUMER of the data returned by the server (the PRODUCER)
- **Server**
  - PRODUCES the data for the web pages and "applications" to be returned to the client (the CONSUMER)
  - Apache, Tomcat, Nginx, IIS (Internet Information Services)
  - Executes code that is located on the server, NOT the client
- **HTML** – Hypertext Markup Language
- **CSS** – Cascading Style Sheets
- **Javascript** – Client-side scripting language
- **PHP** – PHP Hypertext Processor – Server-side scripting language
  - Open-source...so it's free!
  - Server-side scripting language
  - Interpreted language, not compiled.
  - Platform agnostic (runs basically anywhere)
  - PHP Interpreter – recognizes .php files
  - Loosely typed (no need to declare the type of variables)
- **Algorithm** (recipe)
  - Can you write an algorithm (step-by-step guide) for buying a soda from a soda machine?
  - Why is this important to know?

### PHP Basics (open <http://www.compileonline.com>)

- **Start of syntax** -- `<? php ...code... ?>`
- **Case sensitive** -- PHP is case-sensitive
- **Comments** -- `//` (single line comment) and `/* ...code... */` (multi-line comment)

- **CONSTANTS** -- `define(name, value, case-insensitive)` – `define("TAX_RATE", 8.125)`
- **Variables**
  - Start with a "\$" `$my_age`, `$temp` and are case sensitive
  - Name must start with a letter or underscore (not a number)
  - WordPress coding standards require all lowercase and underscore between words, such as `$temp_total_cost`, `$total_cost`
  - Variable names are case sensitive -- `$Cost` is not the same as `$cost`
- **Data Types**
  - String (String functions: [https://www.w3schools.com/php/php\\_ref\\_string.asp](https://www.w3schools.com/php/php_ref_string.asp))
  - Integer – whole numbers, negative and positive, no decimal in the number
  - Float (floating point numbers - also called double)
  - Boolean – true and false
  - Array `array("Volvo", "BMW", "Toyota");`
  - Object
  - NULL – no value, default assigned to variables.
  - Resource – won't discuss (storing of reference to function or external resource – like a database call)
- **Math Operators**
  - `+` `-` `*` `/` `%` `**` (exponent)
  - Order of precedence is `()` `**` `*` `/` `+` `-`
- **Assignment Operators**
  - `=` `+=` `-=` `*=` `/=` `%=` -- `$total_cost += 100` (`$total_cost = $total_cost + 100`)
- **Comparison Operators**
  - `==` `===` `!=` `<>` `!==` `>` `<` `>=` `<=` (`===` and `!==` mean equal AND the same type)
- **Increment Operators**
  - `++$x` pre-increment
  - `$x++` post-increment
  - `--$x` pre-decrement
  - `$x--` post-decrement

- **Logic Operators**

- AND or &&
- OR or ||
- XOR
- !(NOT)

- **String Operators**

- . (dot) means concat \$txt1 . \$txt2 (printed together)
- .= (dot equals) means \$txt1 .= \$txt2 (assign the concat of txt1 and txt2 to txt1)
- There are many String functions: [https://www.w3schools.com/php/php\\_ref\\_string.asp](https://www.w3schools.com/php/php_ref_string.asp)

- **Output**

- echo "Here is the result " . \$my\_result; -- remember we spoke about the difference between single quotes and double quotes, such as:
- Double Quotes
- echo "Here is the result: \$my\_result (in dollars)";
- Single Quotes
- echo 'Here is the result:' . \$my\_result . ' in dollars');
- 
- print "Here is the result " . \$my\_result;

- **Conditional Statements**

- If
- If ... else
- If ... elseif ... else
- Switch

- **Repetition (Looping)**

- While
- Do...While (will always run at least once)
- For
- Foreach (for arrays only)

## Links I used in class:

Learning PHP (I followed this closely in class): <https://www.w3schools.com/php/default.asp>

## The Online PHP Interpreter we used:

[http://www.compileonline.com/execute\\_php\\_online.php](http://www.compileonline.com/execute_php_online.php) (Specifically PHP)

<http://www.compileonline.com/> (All platforms)

## Lorem Ipsum Generators

This is the list I showed in class:

<https://www.shopify.com/partners/blog/79940998-15-funny-lorem-ipsum-generators-to-shake-up-your-design-mockups>

Here is an HTML Lorem Ipsum Generator that allows you to create HTML elements on the fly, like tables, lists, nav bars, etc.

<https://www.webpagefx.com/web-design/html-ipsum/>

Here is the Dummy Image Generator I demo'd in class

<https://dummyimage.com/>

This is my goto generator

<https://loempixel.com/>

Here is another one I like

<https://pickadummy.com/>

Let's go crazy!

<https://placekitten.com/>

<https://baconmockup.com/>

Can't get enough images?

<https://loremipsum.io/21-of-the-best-placeholder-image-generators/>

## A guide on how to use "Inspect Element" on Firefox and Chrome

Firefox:

[https://developer.mozilla.org/en-US/docs/Tools/Page\\_Inspector](https://developer.mozilla.org/en-US/docs/Tools/Page_Inspector)

Chrome

<https://developers.google.com/web/tools/chrome-devtools/css/>

## WordPress Coding Standards:

PHP:

<https://make.wordpress.org/core/handbook/best-practices/coding-standards/php/>

Javascript

<https://make.wordpress.org/core/handbook/best-practices/coding-standards/javascript/>

HTML

<https://make.wordpress.org/core/handbook/best-practices/coding-standards/html/>

CSS

<https://make.wordpress.org/core/handbook/best-practices/coding-standards/css/>

## WordPress Codex – This is the WordPress online manual

[https://codex.wordpress.org/Main\\_Page](https://codex.wordpress.org/Main_Page)

Instructor: Tom Morel

NFL.Instructor@gmail.com

