

# CMPS 3390 Homework 7

*Fall 2024*

## Running PHP

You can run a php script directly from the server cli by using the php command:

```
paul@odin:~/public_html/cs3680$ php myscript.php
```

You can also execute a php script from the browser by providing the full URL path:

```
https://cs.csub.edu/~paul/cs3680/myscript.php
```

Notice that when you access PHP from the browser, you will only be able to see the output.

PHP code is processed by the server BEFORE a response is sent.

## DataTypes

PHP is a loosely typed language. However, there are a few functions to work with types when necessary:

- get or set the state of a variable:  
`isset`, `unset`, `empty`
- get or set the type of a variable:  
`gettype`, `settype`
- type checkers:  
`is_int`, `is_float`, `is_string`, `is_bool`, `is_array`, `is_object`, `is_null`, `is_resource`

## Scope

- **Superglobals:** global scope, already defined  
`$_GET`, `$_POST`, `$GLOBALS`, `$_COOKIE`, `$_SESSION`, `$_FILE`, `$_ENV`, `$_REQUEST`, `$_SERVER`
- **Constants:** global scope, using `define` function
- **Global Variables:** global scope of script, and func \*\*if declared
- **Static Variables:** local to function/class definition, retains value
- **Function Variables:** local to function

## Operators

- Assignment: `=`
- Arithmetic: `+` `-` `*` `/` `%`
- Arithmetic Assignment: `+=` `-=` `*=` `/=` `%=`
- String ops: `.` `.=`
- increment/decrement (pre & post): `++` `--`
- Comparison: `<` `>` `<=` `>=` `==` `===` `!=` `!==` `<>`
- Logic: `&&` `||` `!` `and` `or` `xor`

Important info about precedence: <https://www.php.net/manual/en/language.operators.logical.php>

- Ternary/Conditional: `?` `:`

## Control Structures

- `if(expression) { ... }`
- `if(expression) { ... } else { ... }`
- `if(expression) { ... } elseif( expression) { ... } else { ... }`
- `switch($var) { case <int, float, char, string>: ... break; default: ... }`

## Looping

- `while(expression) { ... }`
- `do { ... }while(expression);`
- `for(init; test; update) { ... }`
- `foreach($arr as $key => $val) { ... }`

## Turn On Errors & Logging

```
//MAKE SURE TO CHMOD YOUR ERROR LOG FILE PERMISSIONS TO 646
```

```
date_default_timezone_set("America/Los_Angeles");  
ini_set('error_log', 'error.log');  
ini_set('display_errors', 1);
```

## Useful Info

`print_r()`: <https://www.php.net/manual/en/function.print-r.php>

`var_dump()`: <https://www.php.net/manual/en/function.var-dump.php>

`var_export()`: <https://www.php.net/manual/en/function.var-export.php>

`json_decode()`: <https://www.php.net/manual/en/function.json-decode.php>

`<?= $value ?>` : Shorthand for `<?php echo $value ?>`