

PHP

Install

- `sudo apt-get update`
- `sudo apt-get install apache2 apache2-utils`
 - Will install the web server and some utilities:
<https://packages.debian.org/wheezy/apache2-utils>
- `sudo apt-get install php5`
 - Edit: `/etc/php5/apache2/php.ini` `display_errors = On` to turn on error reporting to the web page. Do NOT do this in a production system. Look at the log files.

PHP vs Python

Sequence

python

```
foo = 23
```

vs

```
<?php
// Set a variable to a value:
// Note - variable names start with $
// // means a comment. # works too, but I prefer //.
$foo = 23
?>
```

php - **hello.php**

Or to be more traditional with the first PHP program:

```
<?php
echo "hello, world";
?>
```

Why hello world?

https://en.wikipedia.org/wiki/%22Hello,_World!%22_program

And ... what are the <?php and ?> thingies for.

PHP was/is designed to be inserted into html.

- The <?php is an html tag that says what follows is php. -
- and it is interpreted on the server side.
- The ?> is the end of PHP

What we really were expected to do is: [helloWorld.php](#)

```
<html><head><title>Hello, World</title></head>
<body>
<h1>Hello from PHP</h1>
<?php
    echo"hello world<br><br>";
?>
</body></html?>
```

The above works, but is kind of useless as we could have done all the above with just html. So let's do something that needs server side information: [helloTime.php](#)

```
<html><head><title>Hello, World</title></head>
<body>
<h1>Hello from PHP</h1>
<?php
    echo"hello world<br><br>";
?>
The time here is:    <?php echo    date('Y-m-d H:i'); ?>
</body></html>
```

<http://php.net/manual/en/function.date.php>

Selection

python

```
if a > b:
    print('a is bigger than b')
elif a == b:
```

```
        print('a is equal to b')
else:
    print('a is smaller than b')
```

php

```
<?php
// For example... This won't work as $a and $b are not defined.
if ($a > $b) {
    echo "a is bigger than b";
} elseif ($a == $b) {
    echo "a is equal to b";
} else {
    echo "a is smaller than b";
}
?>
```

php In a web page with input [form.1.php](#)

```
<html><head><title>A Form Example</title></head>
<body>
<h1>A Form Example</h1>
<?php
// Are the variables we need set?
// $_POST is an array (Python - Dictionary) that contains
// all the defined html post variables.
if (isset($_POST['a']) and isset($_POST['b'])) {

// Yes use them.
$a = $_POST['a'];
$b = $_POST['b'];

    if ($a > $b) {
        echo "a is bigger than b";
    } elseif ($a == $b) {
        echo "a is equal to b";
    } else {
        echo "a is smaller than b";
    }
} else {
```

```
// Not set. Get the variables we need.

?>
<!-- Get a couple of numbers -->
We need you to enter some numbers.<br>
<form method="post" action="form1.php">
Variable a: <input type="text" name="a"><br>
Variable b: <input type="text" name="b">
<input type="submit">
</form>

<?php
}
?>
```

Iteration

python for:

```
# Prints out the numbers 0,1,2,3,4,5,6,7,8,9
for x in range(10):
    print(x)

# range(start,stop,step)

# Prints out 3,4,5
for x in range(3, 6):
    print(x)

# Prints out 3,5,7
for x in range(3, 8, 2):
    print(x)
```

python while:

```
# Prints out 0,1,2,3,4

count = 0
```

```
while count < 5:
    print(count)
    count = count + 1
```

php for - for.php

```
<?php
// for.php
for ($x = 0; $x <= 10; $x++) {
    // Note that $x is enclosed in double quotes.
    echo "The number is: $x <br>";
}
?>
```

php while - while.php

```
<?php
// while.php
$x = 0;

while($x < 5) {
    echo "The number is: $x <br>";
    $x++;
}
?>
```

php do - do.php

```
<?php
// do.php
$x = 0;

do {
    echo "The do number is: $x <br>";
    $x++;
} while ($x < 5);
?>
```

php foreach - val.php

```
<?php
// val.php
// Display the array values
$arr = array(1, 2, 3, 4, 'a', 'b', 'c');
foreach ($arr as $value) {
    echo $value . " ";
}
?>
```

and keyVal.php

```
<?php
// keyVal.php
// Display both the array key and the value.

$arr = array(1, 2, 3, 4, 'a', 'b', 'c');
foreach ($arr as $key => $value) {
    echo "$key = $value <br>";
}
?>
```

Documentation and more

php.net

Libraries

phpinfo()

<http://php.net/manual/en/funcref.php>

- gd
- MySQL

- SQLite
- geopy
- ...