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Overview

This document shows equivalent code in Python and PHP.

Note that this document is

- NOT comprehensive
- NOT detailed

Comment

Python	PHP
# Single line comment	# Single line comment
	// Another single line comment
111	/*
This is a multiline	This is a multiline
comment.	comment.
111	*/

Variables and Data Types

Python			РНР	
counter =	100	# integer	\$counter = 100;	# integer
miles =	1000.0	# floating point	\$miles = 1000.0;	<pre># floating point</pre>
name =	"John"	# string	<pre>\$name = "John";</pre>	# string
color =	'Blue'	# string	<pre>\$color = 'Blue';</pre>	# string
is_free =	True	<pre># boolean; False</pre>	<pre>\$is_free = true;</pre>	<pre># boolean; false</pre>
empty =	None		<pre>\$empty = NULL;</pre>	

Output (print)

Python	PHP
<pre># parenthesis is needed print("This line.")</pre>	<pre># parenthesis is not needed print "This line."; echo "This line."; # Alternate way</pre>

Operators

Most operators behave in similar way except for int divide.

Python	PHP
a = 3 // 2	d = intdiv(3, 2)

If ... else ...

Python	PHP
<pre># 1. parentheses are optional # 2. spaces are required for indicating # what block of code a statement # belongs if \$t < 10: print("Cheap") elif \$t < 20: print("Fair") else: print("Expensive!")</pre>	<pre># 1. parentheses are required # 2. curly braces used for indicating # what block of code a statement # belongs if (\$t < 10) { echo "Cheap"; } elseif (\$t < 20) { echo "Fair"; } else echo "Expensive!";</pre>

and, or, not

Python	PHP
<pre>if x > 3 and x < 10: print('apple')</pre>	<pre>if (\$x > 3 && \$x < 10) { echo "apple"; }</pre>
<pre>if x < 3 or x > 10: print('orange')</pre>	<pre>if (\$x < 3 \$x > 10) { echo "orange"; }</pre>
<pre>is_raining = True if not is_raining: print ('go swimming')</pre>	<pre>\$is_raining = true; if (!\$is_raining) { echo 'go swimming'; }</pre>

While loop

Python	PHP
x = 1	\$x = 1;
	while $($x \le 5)$ {
<pre>print(x) x += 1</pre>	echo \$x; \$x++;
V 1 T	}

Do ... While loop

There is no do-while loop in Python. Below is an "equivalent" Python code to PHP do-while loop

Python	PHP
<pre>x = 1 while True: print(x) x += 1 if (x > 5): break;</pre>	<pre>\$x = 1; do { echo \$x; \$x++; } while(\$x <= 5);</pre>

For loop

For-loop in Python and PHP are different things.

The following are equivalent code to

- 1. Execute a block of code a specified number of times (loops)
- 2. Typically, the block of code requires a sequence of numbers aka counter that increases with each loop.

```
Python
                                  рнр
                                  # for ( [Initialize counter ] ;
# Loop a sequence of numbers
for counter in range (2,7):
                                       [loop if counter meets condition];
                                       [change counter's value]
     print(counter)
                                  for ($counter = 2; $counter < 7; $counter++) {</pre>
                                        echo $counter;
# steps of 2
                                  # steps of 2
                                  for ($counter = 2; $counter < 7; $counter+= 2) {</pre>
for counter in range (2, 7, 2):
                                        echo $counter;
     print(counter)
```

For each loop

See

- Python list PHP indexed array
- Python dictionary PHP associative array

Strings

Formatted Strings

Python	PHP
	<pre>\$name = "Apple" # just use a double quoted string</pre>
<pre>str = f"my name is {name}"</pre>	<pre>\$str = "my name is \$name";</pre>

Concatenation

Python	PHP
str = "I " + "love you!"	\$str = "I " . "love you!";

Length

Python	РНР
<pre>value = 'abc' n = len(value)</pre>	<pre>\$value = 'abc'; \$n = strlen(\$value);</pre>

Getting first character

Python	PHP
<pre>value = 'abc' ch = value[0]</pre>	<pre>\$value = 'abc'; \$ch = \$value[0];</pre>

To uppercase/lowercase

Python	PHP
<pre>value = 'abc'</pre>	<pre>\$value = 'abc';</pre>
<pre>value = value.upper()</pre>	<pre>\$value = strtoupper(\$value);</pre>
<pre>value = value.lower()</pre>	<pre>\$value = strtolower(\$value);</pre>

Search for position of a specified text within a String

Python	PHP
result = "I love you!".find("love")	<pre>\$result = strpos("I love you!", "love");</pre>
<pre>if result == -1: print("Not found") else: print(result) # output 2</pre>	<pre>if (\$result === false) { # Note: Must use triple = operator # to compare type echo "Not found";</pre>
princ(resure) # Output 2	echo Not Found; } else { echo \$result; # output 2 }

Replace text within a String

Python	PHP
<u> </u>	<pre>\$value = "I love dog"; \$result = str_replace("dog", "cat",</pre>

String slicing

Python	РНР
<pre>value = 'abcdef' # start pos:end position partial = value[3:5] # de</pre>	<pre>\$value = 'abcdef' # string, start pos, number of chars \$partial = substr(\$value, 3, 2); # de</pre>

Python list - PHP indexed array

Python	PHP
<pre># called a list colors = ["red", "green", "blue"]</pre>	<pre># array \$colors = ["red", "green", "blue"];</pre>
	<pre># alternative way to crate an array \$colors = array("red", "green", "blue");</pre>

Getting an item

Python	PHP
<pre>print (colors[1]) # green</pre>	echo "\$colors[1]\n";

membership (in versus in_array)

Python	PHP
<pre># called a list colors = ["red", "green", "blue"]</pre>	<pre># array \$colors = ["red", "green", "blue"];</pre>
<pre>if "red" in colors: print ("bingo!")</pre>	<pre>if (in_array("red", \$colors)) { echo "bingo!\n"; }</pre>

For each loop

Python	PHP
<pre>colors = ["red", "green", "blue"] # 1. temp var followed by list var # 2. keyword is "in"</pre>	<pre>\$colors = ["red", "green", "blue"]; # 1. array var followed by temp var # 2. keyword is "as"</pre>
<pre>for (value in colors): print(value)</pre>	<pre>foreach (\$colors as \$value) { echo "\$value\n"; }</pre>

Append new item

Python	РНР
colors.append("orange") # append	<pre>\$colors[] = "orange"; # append</pre>

Number of items

Python	PHP
<pre>colors = ["red", "green", "blue"] n = len(colors)</pre>	<pre>\$colors = ["red", "green", "blue"]; \$n = count(\$colors[]);</pre>

Python slicing - PHP Slicing

Python	PHP
letters = ['a', 'b', 'c', 'd', 'e']	\$letters = ['a', 'b', 'c', 'd', 'e'];
<pre># result stores # ['b', 'c'] result = letters[1:3]</pre>	<pre># array_slice(array, start, length) # result stores # ['b', 'c'] \$result = array_slice(\$letters, 1, 2);</pre>

Python dictionary - PHP associative array

Python	PHP
<pre># dictionary lookup = { "Peter":"35", "Ben":"37"}</pre>	<pre># array \$lookup = ["Peter"=>"35", "Ben"=>"37"];</pre>
	<pre># alternative way \$alt = array("Peter"=>"35","Ben"=>"37");</pre>

For each loop

Python	PHP
<pre>for name, age in lookup.items(): print(\$name + " is " + \$age);</pre>	<pre>foreach (\$lookup as \$name => \$age) { echo "\$name is \${age}\n"; }</pre>

Add new item

Python	PHP
<pre>lookup['Robert'] = 12;</pre>	<pre>\$lookup["Robert"] = 12;</pre>

Number of items

Python	PHP
len(age_dict)	count(\$age_arr)

Functions

Python	PHP
<pre>def do_magic(a, b): if a > 4: return 'apple' return 'orange'</pre>	<pre>function do_magic(\$a, \$b) { if (\$a > 4) { return 'apple'; } return 'orange'; }</pre>