



EXPLORER

1 OPEN EDITORS 1 UNSAVED

percipio19_forloop.py Pe...

PYTHON

Automate-Boring-Stuff

my_code

Percipio_Python3-Course

01_Start

02_Data-Sequence Types

03_Collections-Mapping-Lo...

percipio15_range_type_a...

percipio16_set_type.py

percipio17_dict_type.py

percipio18_while_loop.py

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percipio20_if_statement....

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04_Modules-Functions

05_Classes

06_Working-with-Files

07_Comprehensions

08_Iterables-and-Generators

09_Exceptions

Python Projects_2014

CMD_Python_Set-Path.txt

Python_Basics.txt

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python_exercises_00.py

python_exercises_01.py

Python_Tutorial_Running-Scr...

Python_Tutorials.md

percipio19_forloop.py

```
1 # percipio19_forloop.py
2 # Percipio video: Collections, Mapping, & Looping; The For Loop in Python
3 #
4 nl = '\n'
5 # The forLoop executes a suite of code for each element
6 #
7 for elem in range(5): # Generates a range of elements from 0-4 when given a value of 5. ??WHERE DOES ELEM
COME FROM? MADE UP VAR OR A FUNC OF PYTHON??
8     print(elem, end=' ') # end=' ' prints a space after the element
9 print() # prints a new line
10 #
11 for elem in range(1, 6): # generates a 2-parameter range starting at 1 & ending before 6
12     print(elem, end=' ') #
13 print() #
14 #
15 for elem in range(5, 0, -1): # generates a 3-parameter range starting at 5, ending before 0, and incrementing
by negative 1
16     print('Countdown:', elem) #
17 #
18 for char in 'string': # iterates through a string
19     print(char, end=' ') # prints on same line
20 print() # prints a new line
21 #
22 for tup in (1, 3, 5): # iterates through a tuple
23     print(tup) #
24 #
25 for val in ['Hello', 'Goodbye', 'See you soon']: # iterates through a list of values
26     print(val) #
27 #
28 greek = {'grkDictKey01': 1, 'grkDictKey02': 2, 'grkDictKey03': 3, 'grkDictKey04': 4} # dictionary with 3 keys
& 3 values
29 for key in greek: # iterates over each dictionary-key
30     if key == 'grkDictKey02': # forLoop uses a conditional if to see if key equals beta
31         continue # if key equals beta, will cause the forLoop to go to the next element
32     print(key, greek[key]) # prints the dictionary key and then the dictionary's key element
33 # Remember the keys in this dictionary are not ordered so can not tell which key the forLoop will start with.
(There is an ordered dictionary)
34 #
35 # Starts at 06:00
36 # ForLoop to find Prime integers
37 for outer in range(2,101): # forLoop nested within a forLoop starting at 2 & ending before 10
38     for inner in range(2, outer): # inner or nested loop starting at 2 & ending at what the outer forLoop
value is
39         if not outer % inner: # modulo calculation which gives a remainder
40             # A remainder of not-zero equals a True value
41             # 'if not' True equals False so this will not Print
42             # a remainder of any integer but zero gives a false value
43             # 'if not' False equals True so this will Print out next line
```




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```
41 # if not True equals False so this will not print
42 # a remainder of any integer but zero gives a false value
43 # 'if not' False equals True so this will Print out next line
44 print(outer, '=', inner, '*', int(outer / inner)) # outers equals inner multiplied by integer
   value of outer / inner
45 #
46 break # exits the forLoop
47 else: # when line 'if not outer % inner:' is False, this else statement is excuted
48     print(outer, 'is a prime number.') # Prints the prime integer
49 ...
50 0 1 2 3 4
51 1 2 3 4 5
52 Countdown: 5
53 Countdown: 4
54 Countdown: 3
55 Countdown: 2
56 Countdown: 1
57 s t r i n g
58 1
59 3
60 5
61 Hello
62 Goodbye
63 See you soon
64 grkDictKey01 1
65 grkDictKey03 3
66 grkDictKey04 4
67 2 is a prime number.
68 3 is a prime number.
69 4 = 2 * 2
70 5 is a prime number.
71 6 = 2 * 3
72 7 is a prime number.
73 8 = 2 * 4
74 9 = 3 * 3
75 10 = 2 * 5
76 11 is a prime number.
77 12 = 2 * 6
78 13 is a prime number.
79 14 = 2 * 7
80 15 = 3 * 5
81 16 = 2 * 8
82 17 is a prime number.
83 18 = 2 * 9
84 19 is a prime number.
85 20 = 2 * 10
86 21 = 3 * 7
87 22 = 2 * 11
```