



EXPLORER

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```
1 # percipio18_while_loop.py
2 # Percipio video: Collections, Mapping, & Looping; The While Loop in Python
3 # The While Loop executes code if its condition is true
4 nl = '\n'
5 counter = 3 # sets a variable named counter to 3
6 while counter > 0: # if this code lines evaluates as true, then indented code will execute
7     print('counting down:', counter) #
8     counter -= 1 # decrement statement where counter = counter minus one
9
10 while counter > 0: # this while loop will never execute
11     print('Never executes code')
12     print('when condition is false')
13
14 while 1: # 'while: 1' actually means 'while: true' & this is a common Python idiom for a static True.
15     print('Executes at least once') # will always print
16     if not counter: # CONFUSING-checks a condition: 1) if counter variable is 0, that's False, 2) 'not' false
17         # is true, and 3) 'if' true statement will execute code
18         break # break causes the while loop to exit whic is important with a static true
19
20 # While loops can process lists containing a sequence until that sequence is empty
21 # A list is considered true when it has populated elements
22 # A list is considered false when it is empty
23 names = ['Tom', 'Ellen'] # This list is true with 2 elements
24 print('names = ', names)
25 while names: # this line says 'while the names variable is true', execute
26     print(names.pop(), 'is going') # pop method will remove last element from the names-variable list
27     print('names =', names) # I added this line
28     # when names is false, while loop exits
29
30 results = [1, 0, 1] #
31 processed = 0 # variable to count how many results were processed
32 passed = 0 # variable to count how many results were passed
33 print('processed =', processed) # I added this line
34 print('passed =', passed) # I added this line
35 while results: # a list containing elements is true
36     processed += 1 # will increment the processed variable by +1
37     result = results.pop() # pop method will remove last element from the results-variable list
38     if not result: # 1) '1' is a true value stored in result, 2) 'not' true value (1) is a false value, this
39         # condition is false & doesn't execute the 'continue' statement
40         print('continue statement is run')
41         continue # run only if 'if not result' statement is true, 'continue' statement will cause the loop to
42         # restart from the loop beginning
43     passed += 1 # will increment the passed variable by +1
44     print('processed =', processed) # I added this line
45     print('passed =', passed) # I added this line
46 else: # will only execute when the 'while:results:' condition is false
47     print('Processed:', processed, 'Passed:', passed) #
48     ...
```





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```
43 else: # will only execute when the 'while:results:' condition is false
44     print('Processed:', processed, 'Passed:', passed) #
45     ...
46 counting down: 3
47 counting down: 2
48 counting down: 1
49 Executes at least once
50 Ellen is going
51 Tom is going
52 Processed: 3 Passed: 2
53 ...
```

