Python Developer

Iterators

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INHOUD

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# Referenties

<https://www.w3schools.com/python/python_iterators.asp>

<https://www.programiz.com/python-programming/iterator>

<https://www.geeksforgeeks.org/iterators-in-python/>

<https://python.land/deep-dives/python-iterator>

### Ex1\_1 – next()

class MyNumbers:  
  
 def \_\_iter\_\_**(**self**)**:  
 self**.**a = 0  
 return self  
  
 def \_\_next\_\_**(**self**)**:  
 self**.**a += 1  
 return self**.**a  
  
  
mynumbers = MyNumbers**()**myiter = iter**(**mynumbers**)**print**(**next**(**myiter**))**print**(**next**(**myiter**))**print**(**next**(**myiter**))**

1

2

3

Process finished with exit code 0

### Ex1\_2 – for loop

class MyNumbers:  
  
 def \_\_iter\_\_**(**self**)**:  
 self**.**a = 0  
 return self  
  
 def \_\_next\_\_**(**self**)**:  
 self**.**a += 1  
 return self**.**a  
  
  
mynumbers = MyNumbers**()  
  
# loop until 1000**for number in mynumbers:  
 print**(**number**)** if number >= 1000:  
 break

…

997

998

999

1000

Process finished with exit code 0

### Ex1\_3 - StopIteration

Met de **StopIteration** exception kan je de loop ook afbreken.

class MyNumbers:  
  
 def \_\_iter\_\_**(**self**)**:  
 self**.**a = 0  
 return self  
  
 def \_\_next\_\_**(**self**)**:  
 self**.**a += 1  
 **# loop until 1000** if self**.**a > 1000:  
 raise StopIteration  
  
 return self**.**a  
  
  
mynumbers = MyNumbers**()**for number in mynumbers:  
 print**(**number**)**print**(**"Iteration finished"**)**

…

998

999

1000

Iteration finished