



generators

Generators are special types of functions that return an iterator that does not store its entire contents in memory, but instead "delays" the execution of an expression until its value is requested.

```
def infinite_sequence():  
    num = 0  
    while True:  
        yield num  
        num += 1
```




Since a computer does not have infinite memory, an unlimited sequence of numbers could not be generated without the help of a generator.



The same happens with data that, without being infinite, would take up too much space in memory if suddenly stored.

```
mygenerator = infinite_sequence()  
  
print(next(mygenerator))  
print(next(mygenerator))  
print(next(mygenerator))
```



```
>>0  
>>1  
>>2
```