

# Is file object in python an iterable

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I have a file "test.txt":

```
6  this is 1st line
    this is 2nd line
    this is 3rd line
```

the following code

```
2  lines = open("test.txt", 'r')
    for line in lines:
        print "loop 1:" + line
    for line in lines:
        print "loop 2:" + line
```

only prints:

```
loop 1: this is 1st line
loop 1: this is 2nd line
loop 1: this is 3rd line
```

It doesn't print loop2 at all.

Two questions:

1. the file object returned by open(), is it an iterable? that's why it can be used in a for loop?
2. why loop2 doesn't get printed at all?

[python](#) [iterable](#)

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asked Jun 7 '13 at 23:54



[Shengjie](#)

3,630 ● 17 ● 64 ● 117

## 5 Answers

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It is not only an *iterable*, it is an *iterator*, which is why it can only traverse the file once. You may reset the file cursor with `.seek(0)` as many have suggested but you should, in most cases, only iterate a file once.

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answered Jun 7 '13 at 23:57



[jamylak](#)

74.9k ● 16 ● 166 ● 187

1 +1 for a nice, concise description of the iterable-vs.-iterator thing (which most of the other answers didn't even attempt, even though it's the key to the question). – [abarnert](#) Jun 8 '13 at 0:03

Thanks for that description. – [martinbshp](#) Dec 29 '16 at 9:14

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