Python - File Input/Output

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Reading from Files

```
myfile = open('cd6.pos')

text = myfile.read()

myfile.close()
```

Writing into Files

```
words = ['a', 'rose', 'is', 'a', 'rose', 'is',
         'a', 'rose']
myfile = open('newfile.txt', 'w')

for word in words:
    myfile.write(word)

myfile.close()
```

Read Methods

- `read()`
  reads in the whole text – only advisable if the text is small!
- `readline()`
  reads one line at a time; the '\n' is kept
- `readlines()`
  reads in the whole text using `readline()` and returns a list of strings

Looping over File Input


```
myfile = open('cd6.pos')

line = myfile.readline()
while line:
    line = myfile.readline()

myfile.close()
```

Write Methods

- `write(<str>)`
  writes the string to a file
- `writelines(<seq>)`
  writes a list or any other sequence to a file – it does not add newlines

For Loop and File Input

```
import fileinput
for line in fileinput.input(filename)
    print line
```

Piping with files


```
import fileinput
for line in fileinput.input()
    print line
```

This program allows us to pipe input from the terminal through our python program, e.g.,

```
cat file.txt | python testing.py
```

Iterating over File Contents

A very simple way to iterate is to use the following convention:

```
for line in open(filename):
    print line
```

Python handles the closing & there's no explicit file variable