

Addendum to Module 10: Tracing File Operations

Topics:

- Tracing File input
- Tracing File output

Opening a File

```
f = open("myfile.txt","r")
```

variable that
refers to the file
(file handle)

filename

```
f = open("myfile.txt","w")
```

Reading a File

my_input_file.txt



John Phillips
Mary Beukeboom
Eunsuk Kang

next line to execute

```
lines = []  
next_str = f.readline()  
while next_str != "":  
    lines.append(next_str)  
    next_str = f.readline()
```

Reading a File

my_input_file.txt



John Phillips
Mary Beukeboom
Eunsuk Kang

lines = []

```
lines = []
```

next line to execute → `next_str = f.readline()`

```
while next_str != "":
```

```
    lines.append(next_str)
```

```
    next_str = f.readline()
```

Reading a File

my_input_file.txt

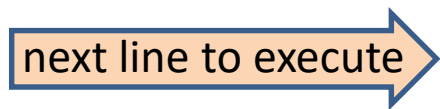


John Phillips
Mary Beukeboom
Eunsuk Kang

```
next_str = "John Phillips\n"  
lines = []
```

```
lines = []
```

```
next_str = f.readline()
```



```
while next_str != "":
```

```
    lines.append(next_str)
```

```
    next_str = f.readline()
```

Reading a File

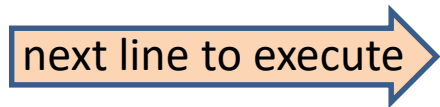
my_input_file.txt



John Phillips
Mary Beukeboom
Eunsuk Kang

```
next_str = "John Phillips\n"  
lines = []
```

```
lines = []  
next_str = f.readline()  
while next_str != "":  
    lines.append(next_str)  
    next_str = f.readline()
```



Reading a File

my_input_file.txt



John Phillips
Mary Beukeboom
Eunsuk Kang

```
next_str = "John Phillips\n"  
lines = ["John Phillips\n"]
```

```
lines = []  
next_str = f.readline()  
while next_str != "":  
    lines.append(next_str)  
    next_str = f.readline()
```

next line to execute

Reading a File

my_input_file.txt



```
John  Phillips
Mary  Beukeboom
Eunsuk Kang
```

```
next_str = "Mary Beukeboom\n"
lines = ["John  Phillips\n"]
```

```
lines = []
```

```
next_str = f.readline()
```

next line to execute

```
while next_str != "":
```

```
    lines.append(next_str)
```

```
    next_str = f.readline()
```


Reading a File

my_input_file.txt



```
John  Phillips
Mary  Beukeboom
Eunsuk Kang
```

```
next_str = "Mary Beukeboom\n"
lines = ["John  Phillips\n"]
```

```
lines = []
```

```
next_str = f.readline()
```

```
while next_str != "":
```



```
    lines.append(next_str)
```

```
    next_str = f.readline()
```

Reading a File


my_input_file.txt



John Phillips
Mary Beukeboom
Eunsuk Kang

```
next_str = "Mary Beukeboom\n"  
lines = ["John Phillips\n",  
         "Mary Beukeboom\n"]
```

```
lines = []  
next_str = f.readline()  
while next_str != "":  
    lines.append(next_str)  
    next_str = f.readline()
```

next line to execute 

Reading a File

my_input_file.txt



John Phillips
Mary Beukeboom
Eunsuk Kang

```
next_str = "Eunsuk Kang\n"  
lines = ["John Phillips\n",  
         "Mary Beukeboom\n"]
```

```
lines = []
```

```
next_str = f.readline()
```

next line to execute

```
while next_str != "":
```

```
    lines.append(next_str)
```

```
    next_str = f.readline()
```

Reading a File

my_input_file.txt



John Phillips
Mary Beukeboom
Eunsuk Kang

```
next_str = "Eunsuk Kang\n"  
lines = ["John Phillips\n",  
         "Mary Beukeboom\n"]
```

```
lines = []
```

```
next_str = f.readline()
```

```
while next_str != "":
```

next line to execute →

```
    lines.append(next_str)
```

```
    next_str = f.readline()
```

Reading a File

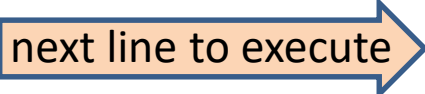
my_input_file.txt



```
John  Phillips
Mary  Beukeboom
Eunsuk Kang
```

```
next_str = "Eunsuk Kang\n"
lines = ["John  Phillips\n",
         "Mary  Beukeboom\n",
         "Eunsuk Kang\n"]
```

```
lines = []
next_str = f.readline()
while next_str != "":
    lines.append(next_str)
    next_str = f.readline()
```



next line to execute

Reading a File

my_input_file.txt



```
John  Phillips
Mary  Beukeboom
Eunsuk Kang
```

```
next_str = ""
lines = ["John  Phillips\n",
        "Mary  Beukeboom\n",
        "Eunsuk Kang\n"]
```

```
lines = []
next_str = f.readline()
while next_str != "":
    lines.append(next_str)
    next_str = f.readline()
```

next line to execute

Reading a File

my_input_file.txt

John Phillips
Mary Beukeboom
Eunsuk Kang



```
next_str = ""  
lines = ["John Phillips\n",  
         "Mary Beukeboom\n",  
         "Eunsuk Kang\n"]
```

```
lines = []  
next_str = f.readline()  
while next_str != "":  
    lines.append(next_str)  
    next_str = f.readline()
```

next line to execute

Writing a File

my_output_file.txt



```
names =
```

```
    [“John”, “Phillips”],  
    [“Mary”, “Beukeboom”],  
    [“Eunsuk”, “Kang”]]
```

next line to execute

```
for n in names:
```

```
    f.write(n[0])
```

```
    f.write(n[1])
```

```
    f.write(“\n”)
```


Writing a File

my_output_file.txt



```
names =  
    ["John", "Phillips"],  
    ["Mary", "Beukeboom"],  
    ["Eunsuk", "Kang"]  
n = ["John", "Phillips"]
```

```
for n in names:
```

next line to execute

```
    f.write(n[0])  
    f.write(n[1])  
    f.write( "\n" )
```

Writing a File

my_output_file.txt

John

```
names =  
    ["John", "Phillips"],  
    ["Mary", "Beukeboom"],  
    ["Eunsuk", "Kang"]  
n = ["John", "Phillips"]
```

```
for n in names:
```

```
    f.write(n[0])
```

```
    f.write(n[1])
```

```
    f.write( "\n" )
```

next line to execute

Writing a File

my_output_file.txt

JohnPhillips

```
names =  
    ["John", "Phillips"],  
    ["Mary", "Beukeboom"],  
    ["Eunsuk", "Kang"]  
n = ["John", "Phillips"]
```

```
for n in names:  
    f.write(n[0])  
    f.write(n[1])  
    f.write( "\n" )
```

next line to execute

Writing a File

my_output_file.txt



JohnPhillips

```
names =  
    [“John”, “Phillips”],  
    [“Mary”, “Beukeboom”],  
    [“Eunsuk”, “Kang”]  
n = [“John”, “Phillips”]
```

next line to execute

```
for n in names:
```

```
    f.write(n[0])
```

```
    f.write(n[1])
```

```
    f.write(“\n”)
```

Writing a File

my_output_file.txt



JohnPhillips

```
names =  
    ["John", "Phillips"],  
    ["Mary", "Beukeboom"],  
    ["Eunsuk", "Kang"]  
n = ["Mary", "Beukeboom"]
```

```
for n in names:
```

next line to execute

```
    f.write(n[0])  
    f.write(n[1])  
    f.write("\n")
```

Writing a File

my_output_file.txt



JohnPhillips
Mary

```
names =  
    ["John", "Phillips"],  
    ["Mary", "Beukeboom"],  
    ["Eunsuk", "Kang"]  
n = ["Mary", "Beukeboom"]
```

```
for n in names:  
    f.write(n[0])  
    f.write(n[1])  
    f.write( "\n" )
```



next line to execute

Writing a File

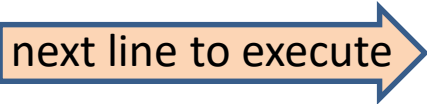
my_output_file.txt



JohnPhillips
MaryBeukeboom

```
names =  
    ["John", "Phillips"],  
    ["Mary", "Beukeboom"],  
    ["Eunsuk", "Kang"]  
n = ["Mary", "Beukeboom"]
```

```
for n in names:  
    f.write(n[0])  
    f.write(n[1])  
    f.write( "\n" )
```



next line to execute

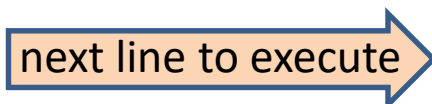
Writing a File

my_output_file.txt



```
JohnPhillips  
MaryBeukeboom
```

```
names =  
    [“John”, “Phillips”,  
     “Mary”, “Beukeboom”,  
     “Eunsuk”, “Kang”]  
n = [“Mary”, “Beukeboom”]
```



```
for n in names:  
    f.write(n[0])  
    f.write(n[1])  
    f.write(“\n”)
```


Writing a File

my_output_file.txt



```
JohnPhillips  
MaryBeukeboom
```

```
names =  
    [ ["John", "Phillips"],  
      ["Mary", "Beukeboom"],  
      ["Eunsuk", "Kang"] ]  
n = ["Eunsuk", "Kang"]
```

```
for n in names:
```

```
    f.write(n[0])
```

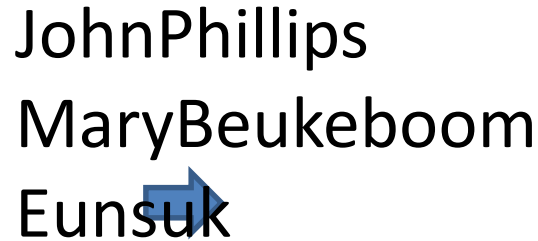
```
    f.write(n[1])
```

```
    f.write( "\n" )
```

next line to execute

Writing a File

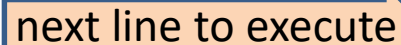
my_output_file.txt



JohnPhillips
MaryBeukeboom
Eunsuk

```
names =  
    [“John”, “Phillips”,  
     “Mary”, “Beukeboom”,  
     “Eunsuk”, “Kang”]  
n = [“Eunsuk”, “Kang”]
```

```
for n in names:  
    f.write(n[0])  
    f.write(n[1])  
    f.write(“\n”)
```



next line to execute

Writing a File

my_output_file.txt

JohnPhillips
MaryBeukeboom
EunsukKang

```
names =  
    [ ["John", "Phillips"],  
      ["Mary", "Beukeboom"],  
      ["Eunsuk", "Kang"] ]  
n = ["Eunsuk", "Kang"]
```

```
for n in names:  
    f.write(n[0])  
    f.write(n[1])  
    f.write( "\n" )
```

next line to execute

Writing a File

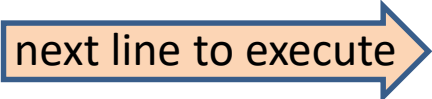
my_output_file.txt



```
JohnPhillips  
MaryBeukeboom  
EunsukKang
```

```
names =  
    [“John”, “Phillips”],  
    [“Mary”, “Beukeboom”],  
    [“Eunsuk”, “Kang”]  
n = [“Eunsuk”, “Kang”]
```

```
for n in names:  
    f.write(n[0])  
    f.write(n[1])  
    f.write(“\n”)
```



next line to execute