

Files Continued

David H Smith IV

University of Illinois Urbana-Champaign

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Reminders

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- Last homework of the quarter is due Thursday by the end of the day.

OS Review

Poll Question: Opening a File

How many times will this function call iterate if placed in a for loop:

`os.walk("dev_website")?`

```
1 dev_website
2 |---index.html
3 |___elements
4 |   |--- about.html
5 |   |--- cv.html
6 |   |--- myfile.py
7 |   |___ projects.html
8 |___inner_dir
9     |--- thing1.txt
10     |___ thing2.txt
11
```

- ☐ A 1
- ☐ B 3
- ☐ C 10
- ☐ D 9

Poll Question: Opening a File

Imagine file.csv has four lines of text. What is the value of `total_len` after the code has finished running?

```
1  fo = open("file.csv")  
2  read1 = fo.readlines()  
3  read2 = fo.readlines()  
4  total_len = len(read1) + len(read2)  
5
```

- ☐ A 3
- ☐ B 6
- ☐ C 0
- ☐ D Error

Poll Question: Opening a File

We are script myfile.py and we want to open mydata.csv.

```
1  home
2  |__tracertong
3      |---mydata.csv
4      |___dev_website
5          |---index.html
6          |___elements
7              |___ myfile.py    <-- You are here
8
```

- ☐ A fo = open(".././mydata.csv")
- ☐ B fo = open("/.././mydata.csv")
- ☐ C fo = open("/tracertong/mydata.csv")
- ☐ D fo = open(".././../mydata.csv")

Poll Question: Reading a File

Imagine file.csv has four lines of text. What is the value of `read1` after the code has finished running?

```
1  fo = open("file.csv")  
2  fo.close()  
3  read1 = fo.readlines()  
4
```

- ☐ A 4
- ☐ B Cannot determine from info given
- ☐ C 0
- ☐ D ValueError

Poll Question: Reading a File

Imagine file.csv has one line that says "This is a file". What is the result of the code?

```
1  fo = open("file.csv")  
2  read1 = fo.read(1)  
3  read2 = fo.read(1)  
4  print(read1, read2)  
5
```

- ☐ A This is
- ☐ B T h
- ☐ C T T
- ☐ D This This
- ☐ E Error

Poll Question: Reading a File

Imagine file.csv has four lines of text. What is the value of `total_len` after the code has finished running?

```
1  fo = open("file.csv")  
2  read1 = fo.readlines()  
3  read2 = fo.readlines()  
4  total_len = len(read1) + len(read2)  
5
```

- ☐ A 3
- ☐ B 6
- ☐ C 0
- ☐ D Error

With-As vs Open-Close

Reading from Files

Method 1:

```
1 file_object = open('filename')
2 lines = file_object.readlines()
3 for line in lines:
4     print(line)
5 file_object.close()
```

Method 2:

```
1 with open('filename') as inf:
2     lines = inf.readlines()
3     for line in lines:
4         print(line)
5     #automatic file close
```

Writing to Files

Method 1:

```
1 file_object = open('filename', 'w')
2 file_object.write('thing to write')
3 file_object.close() #automatic at program end
4 file_object.flush() #optional
```

Method 2:

```
1 with open('filename', 'w') as outf:
2     outf.write('thing to write')
3     #automatic file close
```

Argument Vector (argv)

Poll Question: Argv

What value is printed to the screen if the file, test.py, is run as such:
python test.py 1 2 3?

```
1 import sys  
2 print(sys.argv)  
3
```

- ☐ A 3
- ☐ B 4
- ☐ C 5
- ☐ D Error

Poll Question: Argv

What value is printed to the screen if the file, test.py, is run as such:

```
python test.py 1 2 3?
```

```
1 import sys
2 print(sum(sys.argv[1:]))
3
```

- ☐ A 6
- ☐ B 1
- ☐ C 5
- ☐ D TypeError

Argument Vector (argv)

Example script time...