CSc 110, Autumn 2017 Lecture 25: File output

Adapted from slides by Marty Stepp and Stuart Reges



Autopsy Report:

Dr. Andrew Esty Time of Death: 03/16 11:53 Cause of Death: Rounding Errors

Section attendance question

• Read a file of section attendance (see next slide):

• And produce the following output:

```
Section 1

Student points: [20, 16, 17, 14, 11]

Student grades: [100.0, 80.0, 85.0, 70.0, 55.0]

Section 2

Student points: [16, 19, 14, 14, 8]

Student grades: [80.0, 95.0, 70.0, 70.0, 40.0]

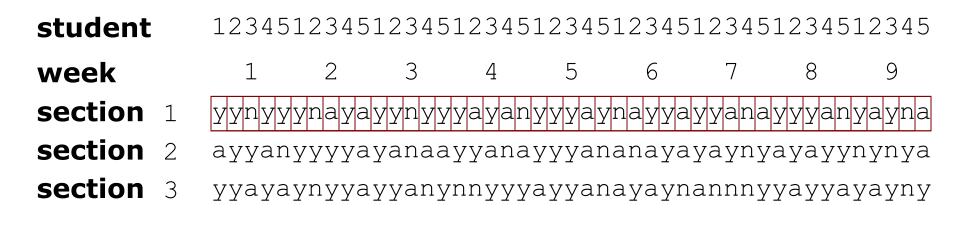
Section 3

Student points: [16, 15, 16, 18, 14]

Student grades: [80.0, 75.0, 80.0, 90.0, 70.0]
```

• Students earn 3 points for each section attended up to 20.

Section input file



- Each line represents a section.
- A line consists of 9 weeks' worth of data.
 - Each week has 5 characters because there are 5 students.
- Within each week, each character represents one student.
 - a means the student was absent (+0 points)
 - n means they attended but didn't do the problems
 - y means they attended and did the problems

(+1 points) (+3 points)

Output to files

- Open a file in write or append mode
 - 'w' write mode replaces everything in the file
 - 'a' append mode adds to the bottom of the file preserving what is already in it

name = open("filename", "w") # write
name = open("filename", "a") # append

Output to files

name.write(str)
name.close()

- writes the given string to the file
- closes file once writing is done

Example:

```
out = open("output.txt", "w")
out.write("Hello, world!\n")
out.write("How are you?")
out.close()
text = open("output.txt").read() # Hello, world!\nHow are you?
```