

COMP 141

File Reading, split function



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Announcements

- Program 6 has been assigned
 - Due on Tuesday, October 29th by 11:55pm

Practice From Last Time

Open your **randomNums.txt** file that you created last time and read in each number.

1. Output the sum and average of the numbers in your file. ✓
2. Calculate the consecutive differences between numbers in the file.
3. **Challenge:** edit your program to print out the smallest and largest values in the file.

– If you need a randomNums.txt file, I put mine in my Box.com directory.

– Remember that the randomNums.txt file and your Python file need to reside in the same folder!

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- Problem that re-occurs often in CS:
- Finding the largest item in a set of things where you can only look at each thing once.



- Pseudocode for finding the largest number in a collection of numbers:
- **largest** = [smallest possible number that you could ever see]
- look at each number once:
if the current number > **largest**, then
largest = current number
- after this loop, **largest** will have the largest number in it!

Split function

Splits a string into multiple string variables based on a separator:

```
var1, var2, ... = var.split("sep")
```

new string variables separated by commas

existing string variable to split

the separator that appears between string pieces

Reading multiple strings per line

```
file = open("filename.txt", "r")
for line in file:
    line = line.rstrip()
    var1, var2, ... = var.split("sep")
    # do something with var1, var2, etc.
```

Should say `line.split("sep")`

Class Practice

- Use the `dogs.txt` file in my Box.com directory
- Write a program to print the year the oldest dog was born, and the year the youngest dog was born.
- Edit your program to print the name of the oldest and youngest dog.

```
dogs.txt - Notepad
File Edit Format View Help
Niko,2007
May,2007
Gigi,2006
Mambo,2015
Lucy,2010
Tommy,2011
```

In-Class Lab