CS150 - Functions

Announcements

- HW due Monday by 11:59pm
- Next HW will be posted today/tomorrow
- Office hour - 3:15 - 4 (ish)
Practice:

5.3: Write a program that prompts the user to enter numbers and prints the average. Program should keep taking input until the user enters 0, a output should be a float.

Ex:

Enter a number: 5
Enter a number: 17
Enter a number: 14
Enter a number: 0

The average is 12.0
number = raw_input('Enter a number')

sum = 0
tot_numbers = 0
while number != 0:
    sum += number
    tot_numbers += 1

number = raw_input('Enter a number')

print 'The average is', sum/tot_numbers
A note on testing HW3

1. read error message
2. print variables
   (hard code variables & remove later)

Ex: CAGGAATACAGG

pattern: AGGA

start searching after

dna.index(pattern, value) index = 5
Ch 5.2: Functions

We're already familiar with many functions in Python.

Ex: sort(), reverse() — list
     int(val) — converts type
     index(value) — string
     + — int3, string, list, int + float

Today, we'll start looking at how to design our own functions.
Syntax

```
# Starting a function

def name_of_function(input1, ... inputk):
    body
    return value

# Normal program code to run
```
Recall ex 4.2:

Ex: ‘argh’
dramatic = aarrrggghh

Take a string and double every letter.
Let’s write a function to do this.
Ex: Finding longest element in a list

There is a max function in the list class.

Uses > comparison to find maximum.

On a list of strings, which string will it return?