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 & prints the average. Program should keep taking input until the user enters 0, & 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
numNumbers = 0
while number != 0:
    sum += number
    numNumbers += 1

    number = raw_input('Enter a number')

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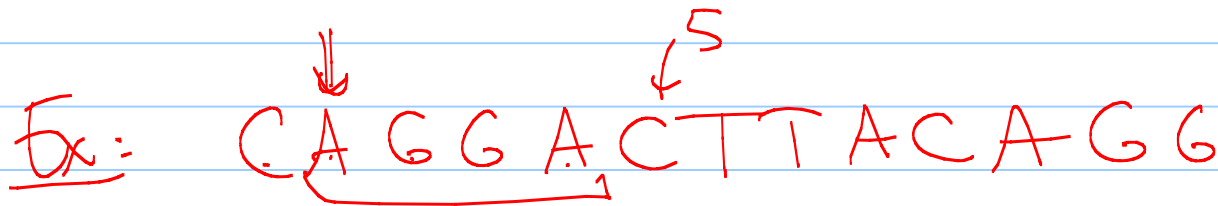
A note on testing HW3

① read error message

② print variables
  (hard code variables & remove later)

Ex: CAGGACTTACAGG $\xrightarrow{5}$

pattern: AGGA

dna.index(pattern, value)

starts searching after
index = value

Ch 5.2: Functions

We're already familiar with many functions in Python.

Ex: sort() , reverse() ← list
     int (val) ← converts type
     index (value) ← string
     + ← ints, strings, list, int + float

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

Syntax

```
def  name Of Function ( input1, ..., inputk ) :
         body
         return  value
# Normal  program
code  to  run
         :
```

Recall ex 4.2 :

dramatic = aarrgghh

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?