HOW TO WRITE GOOD CODE:

START PROJECT.

DO THINGS RIGHT OR DO THEM FAST?

FAST

RIGHT

CODE WELL

ARE YOU DONE YET?

NO, AND THE REQUIREMENTS HAVE CHANGED.

THROW IT ALL OUT AND START OVER.

GOOD CODE

CODE FAST

FAST

NO

DOES IT WORK YET?

ALMOST, BUT IT'S BECOME A MASS OF KLUDGES AND SPAGHETTI CODE.
Announcements

• Reading for next time on the calendar page
  – RQ 6

• APT-2 due today
  – Assignment 3 due Thursday
  – APT-3 out today, due in a week

• Finish lecture notes from last time
Online forms for APTS

- APT Emphasize:
  www.bit.ly/101fall14-0916-01
- APT Pancakes:
  www.bit.ly/101fall14-0916-02
```
best = "UNC Blue Devils"
print best
if best[:3] == "UNC":
    best = "Duke" + best[3:]
print best

print "num 1 test"
num = int(raw_input("Enter Num: "))
if num > 15:
    print "biggest"
elif num > 10:
    print "bigger"
elif num < 5:
    print "smaller"
else:
    print "middle"

print "num 2 test"
num = int(raw_input("Enter Num: "))
if num > 15:
    print "biggest"
elif num > 10:
    print "bigger"
elif num < 5:
    print "smaller"
else:
    print "middle"
```
Dissect the for loop

for VARIABLE in STRUCTURE:
   BODY

Repeat the BODY with the VARIABLE equal to each item in structure
What can the structure be?  
Variable be?

- STRUCTURE $\rightarrow$ Variable
- String $\rightarrow$ character
- List $\rightarrow$ item in list

- There are other types of structures we will see
Examples

```python
answer = 0
for w in range(5,0,-1):
    answer = answer * 10 + w

answer = ""
word = "NCStateFair"
for some in word:
    answer = answer + " " + some
```