Outline Sept 17:

- Recap accumulator pattern with numbers
- Accumulator pattern with strings
- Next time:
  - Boolean types
  - Comparison operators
  - First conditionals

Notes
- Lab 2 due Saturday night
- Let lab instructors know if you finish early
- Okay to “pass” if I call on you!
Recap accumulator pattern with numbers
Ask the user for a positive integer \( n \), and compute the sum of the first \( n \) integers (starting from 0). i.e. if \( n=4 \), we compute the sum = \( 0+1+2+3 \)

Enter an integer: 10
Sum of first 10 integers: 45

Author: Sara Mathieson
Date: 9/14/18

```python
def main():
    # ask the user for an integer
    n = int(input("Enter an integer: "))

    # initialize accumulator variable
    total = 0
    for i in range(n):
        # reassign accumulator variable
        total = total + i
    print(total)  # double check total is changing correctly

    print()  # blank line
    print("Sum of first", n, "integers:", total)

main()
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main()
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Compute the sum of 5 random integers, chosen between 0–9 inclusive. i.e. write a loop that runs 5 times, and each time choose a new random integer using random.randint(0,9). Compute the sum of these random integers.

Author: Sara Mathieson
Date: 9/14/18

```python
import random

def main():
    # set up accumulator variable
    total = 0
    for i in range(5):
        # choose a new random number each time through the loop
        num = random.randint(0,9)
        total = total + num  # accumulate!

        # optional: print out random number
        print("random number", str(i+1)+":", num)

    print()
    print("Sum:", total)

main()
```
Accumulator Pattern

\[ \text{Var} = \text{<start>} \# \text{initialize variable} \]

```
for i in range (<int>):
    \text{Var} = \text{Var} + i \# \text{change} \\
    \text{Var} \# \text{update} \\
```

\#1

\#2
Accumulator pattern with strings
String accumulator practice: **username.py** (with a *new* partner!)

1) update21

2) cd cs21/inclass/w03/

3) atom username.py

4) Complete the program

Finish early?
• practice/telephone.py