DS2000
2/7 - Tue.

Admin
- Hw3 late deadline today 9pm
- Quiz 4 out today 4:30 — 9:50Am Fri
- Hw4 out Fri
- mini viz out now, due march 3rd

Agenda
1. File structure ～> lists
2. Loops/lists
3. Python

Review

What prints?

$$lst = [\overset{0}{``a"}, \overset{1}{``b"}, \overset{2}{``c"}]$$

for item in lst:
    print(item)

a
b
c   (value)

0,1,2

for i in range(len(lst)):
    print(i)   3
    print(lst[i])

0 a
1 b
2 c   (position)

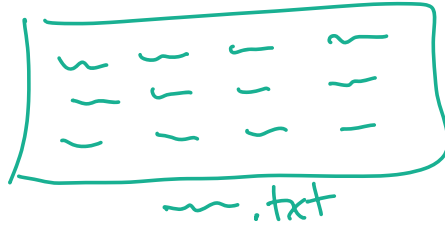i is position
not a value

len(lst)
$\rightarrow$ 3

```
1. File Structure
```

So far...

one value
per line

m.txt
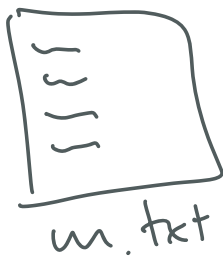
Today...   multiple values
              per line

~.txt

initial goal

- turn one line into one list
- start with readline

```
data = infile.readline()
      "~ ~ — ~ ~"
```

- turn ⎰ a string into a list of strings
       ⎱ lst = data.split()
       $\rightarrow$ {~, ~, ~, ~, ~}
           0   1   2   3   4

variation: ~, ~, ~, ~, ~
```
data = infile.readline()
lst = data.split(",")
```

Data Theme: Running Data

Today: Laney's Garmin from January

date   mileage
  1   3.5   2   3.6   3   12 . . . _

- read the examples for your topic
- ready to answer questions about it
- jot down any questions

bit.ly/ds2000
          lists

Jan / Feb / Mar   —   slicing

Apr / May / Jun   —   plotting

Jul / Aug / Sep   —   list comprehension

Oct / Nov / Dec   —   range