Compsci 101
Introduction
Live Lecture

Susan Rodger
Nicki Washington
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`sum(lst)`	sum of the elements in lst
`max(lst)`	maximum value of lst
`min(lst)`	minimum value of lst
`.append(elm)`	Mutates the list by adding elm to the end of the list
`.count(elm)`	Number of times see elm in the list

Announcements

- Assignment 1 Totem due today, Feb 11, 11:30pm
  - Also REFLECT Form due same time
  - Get one grace day, but no consulting hours on Friday
- APT-2 out Tues, Feb 16

- Exam on Tuesday!, Feb 16

- Exam 1 Question session – Sunday Feb 14, 4pm
  - Use lecture zoom link, recorded
  - Bring questions, if no questions, it will be short!

PFTD

- Lists continued

- String methods and more

- Exam 1

Exam 1 Rules

- This is your own work, no collaboration
- Open book, Open notes

- Do not search for answers on the internet
- Do not type in code where it can be compiled and run
  - Do not use Pycharm, textbook code boxes, Python tutor or any other place the code can be run
- Do not talk to anyone about the exam during the exam, and until it is handed back!

Exam 1 Logistics

- Take on Tues. Feb 16 between 7am and 11pm
- You pick the start time
  - Must start by 9:15pm
- You get 1 hour 45 min
  - Longer if you have accommodations
- Once you start, your timer starts and you must finish in 1 hour, 45 minutes
- You cannot pause the timer

Exam 1 Logistics (2)

- **Go to Gradescope to start**
  - login with your netid
  - select the CompSci 101 **Exam** site
    - Different site than where you turn in assignments
- **Click on Exam 1 to start**
- **Gradescope saves answers as you type them in**
  - Type 4 spaces to indent code
- **Disconnected? Just log back in to Gradescope**
- **Question? Post a private post on Piazza**

Don't go to Gradescope site until you are ready to start!

You click it, you have started!

We do not restart it!

WOTO-1 Cloning
http://bit.ly/101s21-0211-1

List Concatenation Steps

1. Calculate the *length* of the new list
2. *Create* list of that length
3. *Copy* values from first list
4. *Copy* values from second list
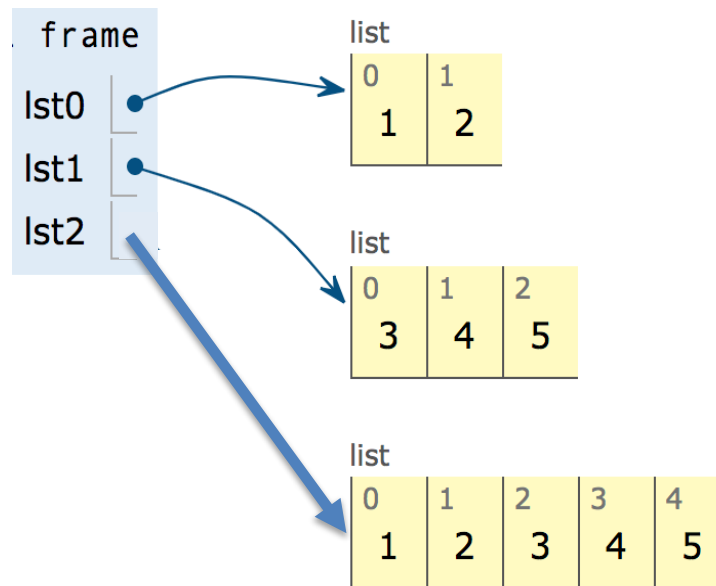5. *Assign the variable to the new list*

Brand new list!

Concatenation:
length, create, copy, copy, assign

```
1   lst0 = [1,2]
2   lst1 = [3, 4, 5]
3   lst2 = lst0 + lst1
```

WOTO-2 – Mutable
http://bit.ly/101s21-0211-2

List Mutation: .append(…)

- **`.append()`** – list function that adds element to end of list
  - Mutates list to left of "." — Same list!
  - "." – call function to the right of the dot on the thing to the left of the dot (`LEFT.RIGHT`)

WOTO-3– List Append
http://bit.ly/101s21-0211-3

- Try drawing it out if you aren't sure!

String's split(…)

- Strings have functions too!
- **TYPE_STRING.FUNCTION(PARAMETERS)**
  - "." means apply function to what is on the left

String's split(…)

- Strings have functions too!
- **TYPE_STRING.FUNCTION(PARAMETERS)**
  - "." means apply function to what is on the left
- **'red fish blue fish'.split()** returns a list
  - ['red', 'fish', 'blue', 'fish']

String's join(…)

- **TYPE_STRING.join(SEQ_OF_STRINGS)**
  - Opposite of .split()
  - Creates string from sequence's items separated by the string to the left of `join`

String's join(…)

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- **`'ish'.join(['f','w','d','end'])`**
  - `'fishwishdishend'`

WOTO-4 – Split and Join
http://bit.ly/101s21-0211-4

More Methods

String

`.find(s)`	index of first occurrence of s
`.rfind(s)`	index of last occurrence of s (from Right)
`.upper()/` `.lower()`	uppercase/lowercase version of string
`.strip()`	remove leading/trailing whitespace
`.count(s)`	number of times see s in string
`.startswidth(s)`	bool of whether the string begins with s
`.endswidth(s)`	bool of whether the string ends with s

List

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