CSC 111:
Intro to Computer Science through Programming
Spring 2017
Prof. Sara Mathieson
Lab 10 due tonight (Lab 11 is the last graded lab)

Final project (like 1.5 homeworks) is due May 3 (Wednesday)

Self-scheduled final exam (similar style to the midterm)

Grader feedback: code quality has jumped up!
Outline: 4/21

+ Homework 9 examples
+ Using `assert`
+ Printing classes with `__str__`
+ Simultaneous assignment and return
Homework 9 Videos
Chloe
Mai
Sarah M.
Tani
Assert
Assert (keyword: `assert`) 

+ Important debugging strategy
+ Also very useful for checking user input
+ The expression used with assert must evaluate to a boolean
  - **True**, assert holds, nothing happens
  - If this boolean is **False**, assert fails and throws an error
Assert (keyword: **assert**)  

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+ The expression used with assert must evaluate to a boolean  
  - **True**, assert holds, nothing happens  
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```python  
>>> user_input = "hello"
>>> assert isinstance(user_input, int)
Traceback (most recent call last):
  File "<pyshell#22>", line 1, in <module>
    assert isinstance(user_input, int)
AssertionError

>>> assert isinstance(user_input, str)
```

```python  
>>> lst = [4, 6, 3, 2, 5, 3]
>>> assert 3 in lst
>>> assert 10 in lst
Traceback (most recent call last):
  File "<pyshell#11>", line 1, in <module>
    assert 10 in lst
AssertionError
```