CS21: INTRODUCTION TO COMPUTER SCIENCE

Prof. Mathieson
Fall 2018
Swarthmore College
Outline Oct 29:

• Continue TDD: 9-letter-word
• Stack diagram example
• Wed: hand back Lab 5
• Wed: List-of-Lists (LOLs)

Notes

• Lab 7 TDD due Saturday night (email me when you finish TDD!)
• Quiz 3 on Friday (study guide coming soon)
• Office Hours Friday 3-5pm
Graphics examples

Ollie

Sarah
Informal Quiz: discuss with a partner

1) For a complete TDD, should main be finished or just an outline?

2) For a complete TDD, which parts of each function should be present? (a) parameters (b) return value (c) description of the implementation details (d) comment about what the function does (e) function name

3) What is wrong with the first for loop below? What does it do?

```python
num_lst = [4,5,6,7]
for num in range(len(num_lst)):
    print(num)
for i in num_lst:
    print(num_lst[i])
```

4) What is wrong with the second for loop above? What does it do?
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num takes on the values 0,1,2,3 (these are the indices, not the list values)

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for i in num_lst:
    print(num_lst[i])
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   num takes on the values 0,1,2,3 (these are the indices, not the list values)

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   ```python
   for i in num_lst:
       print(num_lst[i])
   ```

   i takes on the list values, but it is being used as an index (ERROR!)
Better for loops for mini-quiz

```python
for i in range(len(num_lst)):
    print(num_lst[i])

for num in num_lst:
    print(num)
```

These two loops do the same thing!
Continue TDD: nine letter game
Stack diagram practice: Handout 7
Handout 7 solution

Diagram showing a stack and heap with labels such as 'Swap', 'i', 'j', '1st', 'temp', 'Shuffle', '1st', 'main', 'num-1st'. The heap contains elements 4, 5, 6, 7.