Lecture Notes
CSC111

Week 6 — Spring 2018

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Wednesday 3/7: Midterm

• In class

• Bring laptop

• Timed: starts at 11:00 a.m., lasts 70 minutes

• Closed books, closed notes, closed Python, closed Web except Moodle.
Outline

• Decomposing a Problem into Sub-Problems
• Clicker Setup
• Mid-Semester Review
Decomposing a Problem into Sub-Problems

- Go to Item 13) on http://www.science.smith.edu/dftwiki/index.php/CSC111_Programs_Created_in_Class_2018
Clicker Setup

- Go to [http://app.theanswerpad.com/student#auth](http://app.theanswerpad.com/student#auth)
- Pick "I HAVE A CONNECT CODE"
- Enter the Connect Code given in class
## Week 6 March 5

### Topics:

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<th>Monday</th>
<th>Lab/Hw</th>
<th>Reading</th>
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<td>Review</td>
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<td>indexing in a list</td>
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<td>how range() works</td>
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<td>functions returning values</td>
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**Wednesday:** *Midterm Exam*, in class, timed, on Moodle, closed notes, closed books, closed Idle.

**Friday**
We stopped here last time...
Friday Before Break

- How does Moodle run the function for Lab 6?
- Different programming languages, different speeds of execution: A look at the N-Queens program
- Something completely different…
def getFirstWordOf(line):
    """receives a line assumed not to be empty and returns its first words. Uses whitespace to split the line into words."
    words = line.strip().split()
    return words[0]

from myLibrary import *

def main():
    lines = ['Soon there'll be lunch', 'Spring into action', 'Break bad habits!']

    for line in lines:
        print(getFirstWordOf(line), end=' ')

    print()
The N-Queens Problem

http://eightqueen.becher-sundstroem.de/
The N-Queens Problem

Watch the animation...

http://eightqueen.becher-sundstroem.de/
Python Version

http://www.science.smith.edu/dftwiki/index.php/NQueens.py
Java Version

http://www.science.smith.edu/dftwiki/index.php/N-Queens_Problem_in_Java
And now, for something completely different…