CS21: INTRODUCTION TO COMPUTER SCIENCE

Prof. Mathieson

Fall 2017

Swarthmore College

Outline Nov 1:

- Mid-semester feedback
- Start: bottom-up implementation (tic-tac-toe)
- Practice: while loops, try/except
- One more TDD example + reading files

Notes

- **Lab 7** due **Saturday** night (email me when you finish TDD!)
- Quiz 3 is this Friday in class (study guide online)
- Office Hours **Friday 3-5pm and by appointment**

Mid-semester feedback

1) Recent topic you understand well

- Functions (2)
- Graphics (11)
- For loops (3)
- While loops (4)
- Incremental development (1)
- Accumulators (3)
- List/string methods (4)
- Lists and mutation (2)
- If/else (2)

2) Topics that need more review/practice

- Files (5)
- List-of-lists (2)
- Writing and using functions (5)
- Function vs. method (1)
- TDD (5)
- Try/except (2)
- While loops (2)
- Graphics (5)
- Stack/heap diagrams (3)
- String formatting (1)
- Accumulators (1)

2) Topics that need more review/practice

- Files (5)
- List-of-lists (2)
- Writing and using functions (5)
- Function vs. method (1)
- TDD (5)
- Try/except (2)
- While loops (2)
- Graphics (5)
- Stack/heap diagrams (3)
- String formatting (1)
- Accumulators (1)

Start: bottom-up implementation (example: tic-tac-toe)

Few notes on TDD

- Main should not be "gutted" and everything put in functions; a reader of your code should be able to understand the high-level idea from main

- On the flip side, each of your functions should be "function worthy"; if a function is one line that is always called as part of another function, merge the two functions

- Parameter types and return type should be included in your comment for each function

Today

- **user_choice(board)** for getting the user's play

- **display(board)** for making a nice display of the board

- reading a file example