Outline for January 18, 2012

Reading: §2, 3

1. Software development
    a. Analyze the problem
    b. Determine specifications
    c. Create a design
    d. Implement the design
    e. Test/debug the program
    f. Maintain the program
2. Example: program to make change, version 1 [*change1.py*]
    a. Comments
    b. Break down change into quarters, dimes, nickels, and the remainder is pennies
    c. Function `input()` gets input as a string from user
    d. Function `int()` converts data to a floating point number
    e. Assignment to variable; evaluate right hand side first
    f. `print` statement
    g. Now a while loop until user says to quit
        i. Logical tests: `==`, `!=`, `>`, `>=`, `<`, `<=`
        ii. Loop variable `go_on` initialized to enter loop
        iii. Loop variable reset at end
3. Variables
    a. What they are
    b. Names, identifiers
    c. Legal, illegal names
4. Type converter functions `int`, `float`, `str`
5. Expressions
    a. Operation, operand
    b. Operators `+`, `-`, `*`, `/`, `//`, `%`, `**`
    c. String operators `+`, `*`