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 +, *