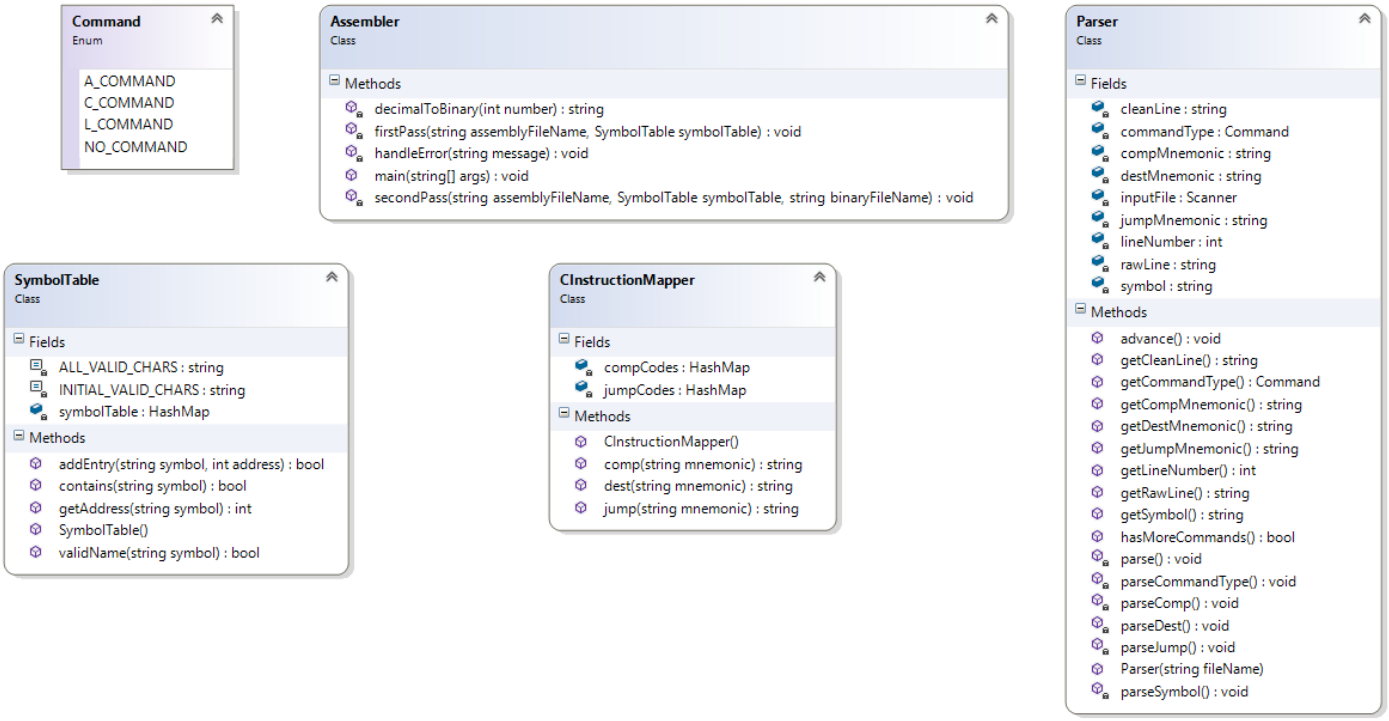
Homework 7: Assembler

Requirements:

Build the HACK architecture Assembler, in Java, per the instructions and guidance covered in class. Test the HACK code your project generated in the simulator and TextComparer (see link at bottom).



Grading method:

As usual with programming assignments, we look for elegance, clarity, reasonable documentation, and neatness.

Follow the instructions in lecture as far the classes and methods to build, as well as allowing command-line arguments as instructed. Document EVERY method (description, precondition, postcondition) and add author information on EVERY file.

What do you turn in?

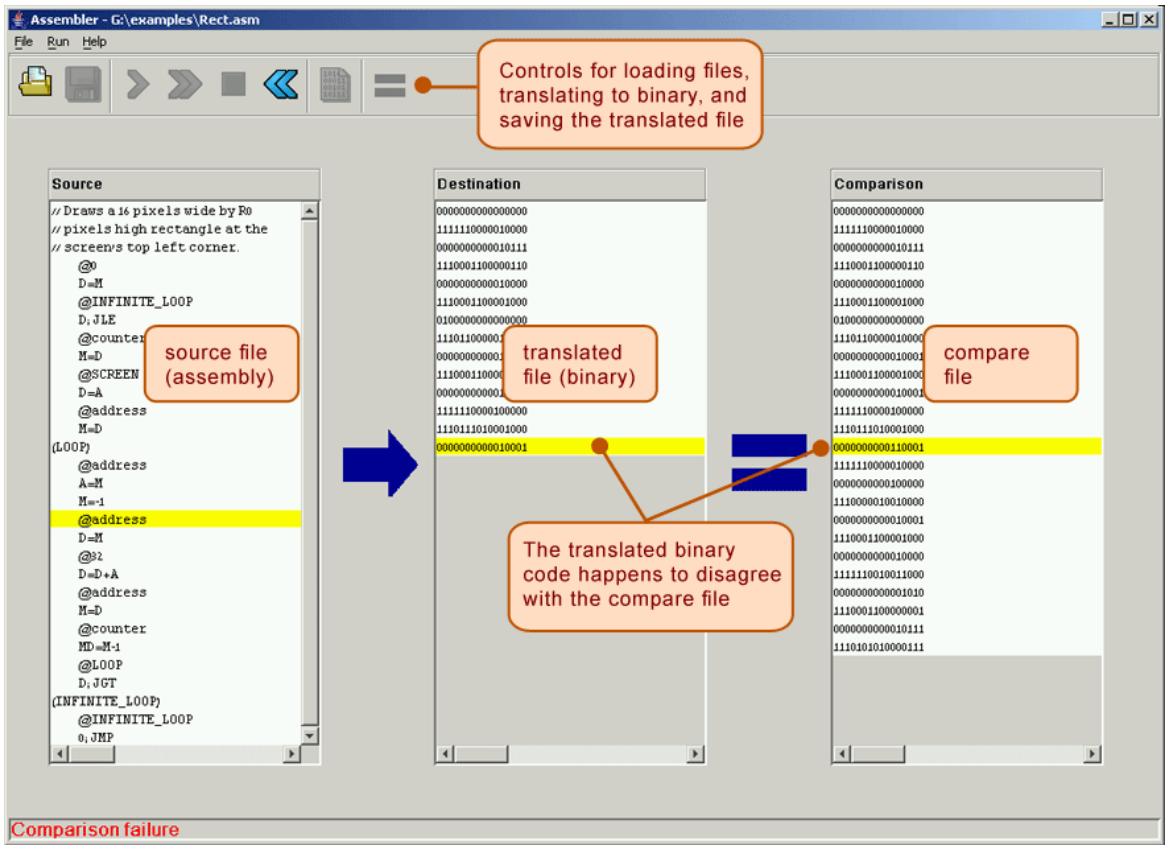
Create one Word document (or PDF) with the following in order:

1. The **Assembler.java** source code (documented)
2. The **Code.java** source code (documented)
3. The **Parser.java** source code (documented)
4. The **SymbolTable.java** source code (documented)
5. A **screen shot** containing the output from running your Assembler.java code on the Rect.asm file (attached to the homework) and comparing the

See http://nand2tetris.org/06.php *for some tips/resources/tools (note that the assignment on the website may be substantially different from the assignment that is described above, if you need clarification email your instructor. You will be graded based on this documents requirements).*

results (Rect.hack) against the solution in the Hack Assembler provided by NAnd2Tetris.

To accomplish this comparison, run your Assembler.java with Rect.asm as input. This will produce a file (binary code) named Rect.hack. Next, open the Hack Assembler, open Rect.asm and generate the translated machine code. Finally, in the Hack Assembler, open your Rect.hack file as a comparison file. If there is a comparison failure, your Assembler is not complete. Otherwise, it is generating the correct machine code. Below is an example of a comparison failure after loading Rect.hack:



Assembler	***Grading***
Working?	/ 60
Well built?	/ 30
Subtotal	/ 90
Documentation	/ 100

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