Project 4 due 4/21/15 at 11:59 PM (nearly midnight)

For this project you are to implement pass 2 of the assembler.

Pass 1 should construct the symbol table, the addresses

associated with each instruction, addresses of each label. The

input file will be in fixed format:

Col 1-8 label optional

Col 9 blank

Col 10 + optional

Col 11-17 mneumonic

Col 18 blank

Col 19 #, @ ... optional

Col 20-29 label, register, ',',X optional ...

Col 30-31 blank

Col 32-80 comments optional

There may be blank lines in the source file. Your project

should assemble all of SIC/XE and be equivalent to

sicasm. Extra credit will be awarded for additional

features currently not included in sicasm such as EQU,

CSECT, USE, etc. All test files will be entered in upper

case. Appropriate error conditions such as duplicately

defined labels or undefined labels.

Invalid mneumonics should be ignored in maintaining your

addresses and your assembler should continue processing. Your

should anticipate project 4 as pass two, thus you might,

in the design of pass 1, consider pass 2. This has been

review from project 1.

Pass 2 should complete pass 1 creating the .obj file similar

to the file created by sicasm. Both the .obj file and the

.lst file should be created using appropriate names.

You may include any other files as you desire in your shar. Be

sure to test the integrity of your shar.