Software Project

2 pass

- **Design and implement an assembly for SIC/XE**

The test data look like Figure 2.5. and are generated by MS Notepad.

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The possible OPCODE in the test data contains all the OPCODEs which appear in Figure 2.5. They include STL, LDB, LDA, COMP,…

The assembly directives include all those appear in Figure 2.5., e.g., START, +, BASE, BYTE, RESW, RESB, END, ….

The name of labels are not allowed to be the same as OPCODEs or assembly directives.

The format of the object program generated by your assembly should conform to Figure 2.8.

Software Project

- **Bonus points**
  - If your assembly is a one-pass assembly.
  - If the implementation of your assembly includes “Literals”
  - If the implementation of your assembly includes “Symbol-defining Statements”
  - If the implementation of your assembly includes “Program Blocks”
  - If the implementation of your assembly includes “Control Sections”

Project Report

- **The student should prepare a report which contains at least the follows:**
  - The architecture of the implemented assembler
  - What you have learned and experienced during the implementation.
    - E.g. You could show your daily record of the implementation.
  - In case you implement more than the required specification, please itemize it.
    - If you implement something mentioned in the previous slice (bonus points), show your test codes (in SIC/XE), and the generated object programs.
  - Copyright Claim
    - Do you make the implementation yourself?
  - Any thing you would like to let G.H.Hwang know.
    - E.g. Suggestion, …
- **Who will be reading the report?**
  - Not TAs but G. H. Hwang

How to hand in your report?

- **Please deliver your project report in Moodle system**
  - Attached filename: your_student_id.zip
  - It should have at least the following items:
    - Electronic files of your report
      - MS word and PDF
    - Source codes
      - OS, Used language, and how to compile your code