Homework#2

In this homework, you will realize the CPU described in class in logisim together with POP, PUSH, CALL, RET instructions and 8 general purpose registers. You must also complete the assembler code given in the website (http://www.marmara-cse-lectures.com/comparch/ch2-assembler.html). Your CPU chip and memory chip must be separate.

Test your work by writing a simple program (like calculating a Fibonacci number), assemble it by using the assembler you have completed, load it to your CPU and run it. The correct result must be computed at the end of your program.

Due Date: October 25, 2016 Tuesday at 23:59

Submission Instruction: Please zip and submit all your files by using filename GroupName_pro1.zip to:cse417.mufe@gmail.com. In the subject line of the email, please write your project number and group member(s). Do not leave the subject line empty. Group name should consist of the first letter of your name and your surname like bkiraz_pro1.zip (bkiraz_akiraz_pro1.circ for two-person group). No late submission will be accepted.

- Logisim files
- The source code that transforms a program written in assembly language into the computer's machine code. This program will accept a file which contains a program written in assembly language as its inputs and outputs another file which contains the corresponding computer's machine code.
- A report that contains a detailed discussion on your design.
- Sample program written in assembly language and the corresponding machine code.

Demos: TBA