CENG CPU-2017
Final Project

Due: Thursday, April 20, 2017 , lab session

Report

1. Cover Page
2. Brief description of the project
3. Final state of the program
4. Sample output showing Register Display and Memory Dump.
5. Testing: A summary of what you tested and how you tested it
6. Conclusions
7. Appendix - Copy of the source code (Must be well formatted and readable)

The source code (and all required files to compile the program) must be zipped (zip) into a single file. Submit it in blackboard.

The following are some of the criteria that will be used to evaluate the final project.

1) Report
- Clear, well organized, easy to read, contains all requested components
- Report of Testing - clearly tests all different parts of the project.

2) Code
- Documentation
  All program files must have a brief description, student's name and date as part of the source code. All functions/procedures must have a brief description. Inline comments should also document the main sections of the program.
- Programming Style
- Portable Issues Addressed

3) User Interface
- Easy to use, consistent display and response
- Allows user to use the program to test and debug a program written for the CPU

4) Accuracy of CPU Implementation
- Fetch
- Execute – all instructions
- Register Display

5) Test Runs of Program
- Code compiles in different environments
- runs test programs

Bonus Assignment (3% of the total grade)

1. Implement memory and the basic registers.

2. Implement the instruction fetch.
   The instruction cycle will consist of a fetch and execute functions. At this time the T (Trace) option will simply call fetch()and display the registers..

3. Implement the T(Trace) option in the user interface so that the fetch() function is executed once every time trace is selected and the registers are displayed.