EEL3801: Computer Organization

Project Report Submission Guidelines

1.0 Description of Project Report Elements

Provide a professionally-prepared report with text in the body of the document in "Times New Roman" 11-point font with all of the elements identified below.

Description of Cover sheet: Provide a full page which lists the Project title, student name, email address, course name, due date, and date of final submission.
Project Description: Provide project name, narrative description of at least 4 sentences, inputs, outputs.
Program Design: Provide a narrative description in sentences of how your code operates, and include a flowchart with sufficient explanation about the program design for someone else familiar with MIPS to be able replicate your design.
Symbol Table: Provide a 2-column Table of all Registers used for both Part A and Part B,and their Purposes, where each is listed on a separate row and identified by register name **`$t0, $s0,`** etc., as well as any Labels used and their purpose on separate rows.
Learning Coverage: provide a meaningful list of at least 5 technical topics learned from this project in full complete sentences.

Prototype in C-language: Prototype code written in C-language that matches the structure of the submitted assembly code which is fully operational is required for both Parts A and B, e.g. using a C-compiler or free C-compiler available at http://codepad.org
For this project, a validated output run of the C code is not required to be submitted. However, fully-operational C-code should be pasted into the report satisfying the Grading Rubric listed below to receive full credit (not screenshots).
Test Plan of .asm Code: Define the testing procedure and inputs used to assure proper functionality of the MIPS code for both Parts A and Bwhich must be sufficiently detailed for a new user to follow explained as sentences. Provide a screenshot illustrating at least three test cases being successfully conducted.

2.0 Grading Rubric

Project Report submission: 100 points total as follows:

- **Professional preparation:** [5 points total] as follows:
  i.e. Typed document with text of the paragraphs in Times New Roman 11 pt font, clear and grammatically well-formed explanations, cover sheet provided, page numbering and document heading numbering (1.0, 2.0, 3.0, etc to identify the required sections listed below). [5 points]

- **Report Content:** [95 points total] as follows having the following numbered section headings:

  1.0 Project Description: project name, narrative description of at least 4 sentences, including identification of program inputs and outputs for both Parts A and B. [10 point]

  2.0 Program Design: narrative description of how your code operates, and a flowchart with sufficient explanation about the program design for someone else familiar with MIPS to be able replicate your design for both Parts A and B[10 points for detailed narrative and 10 points for high quality flowchart]

  3.0 Symbol Table: a 2-column Table describing all Registers used and their specific Purpose in the code for both Parts A and B, where each register is listed on a separate row and identified by register name **`$t0, $s0,`** etc., as well as any Labels used and their purpose on separate rows for both Parts A and B. [10 points for register table and 10 points for label table]

4.0 Learning Coverage: provide a meaningful list of at least 5 technical topics in complete sentences learned from this project that you could mention in a job interview. [20 points]

5.0 Prototype in C-language: paste the C-code in the report (**do not paste a screenshot of the C-code**) for both Parts A and B as you do not need to submit a .c file and do not need to provide a screenshot of the C-language output for this project. However, the .c code shall be a viable fully working prototype for all parts to receive credit. [10 points]

6.0 Test Plan: provide details in sentences identifying the inputs chosen to test the program and why these were selected, and justification why they provide adequate test coverage for both Parts A and B. [6 points]

7.0 Test Results: provide screen shot(s) of at least 3 proper MIPS code executions in MARS for your Test Plan inputs for both Parts A and B. [6 points]

8.0 References: provide a list of all reference materials you used in the project. [3 point]