

CECS 525
Microcomputer Design
Demo 1 Check List

Date_____ **Name:**_____

On demo day, have the tasks listed for each of the following parts ready to demonstrate. Have your demonstration code ready to open and execute. Your demonstration code should be your own code. Practice your demonstration and knowledge of these tasks before the actual demo. I suggest that you create your demonstration code as one complete project, demonstrating each task in your own original order and manner. Comment every line of your demonstration code and list your code in your report under the software heading. Print out a hardcopy of this document and bring to the demo with you.

Create and Demo a Calculator Program

Description: A four function (-, +, *, /), command-line menu-driven calculator that runs in a Raspbian Terminal window on the Raspberry PI. Must use one C (.c) source code file and one Assembly (.s) source code file in the project compilation. Make the menu user friendly so that the user is not confused as how to use the calculator. Give the program quality such that a person might purchase it. Put the four functions in the Assembly source code so that they are invoked by the C source code and so parameters are passed between C and Assembly. Create and manage the user-friendly menu in the C source code.

Make the calculator process signed integers. You can use scanf(), printf(), and #include <stdio.h>.

- Command line menu works correctly. (3 points)
- Subtraction works correctly. (3 points)
- Addition works correctly. (3 points)
- Multiplication works correctly. (3 points)
- Division works correctly (displays remainder too). (3 points)