CS330 - Computer Organization & Assembly Language
Assignment # 6

Individual Work Only

Problem:

Write an assembly language program which takes two integers, A and B, and computes the following expressions. You must use the same variables for A and B throughout all three expressions (you can hard code once at the beginning). The result of each problem should be printed to the terminal.

1) A * 5

2) (A + B) - (A / B)

3) (A - B) + (A * B)

TURN IN: Please the following three items inside a .zip file and submit the .zip file

- asgn7.s (includes all the code)
- Makefile
- Independent completion form

RUBRIC:

- 45%: 15% per working problem. (Each missing problem is minus 33%)
- 15%: 5% per result of problem printed.
- 10%: Use the same A and B variables for all expressions. This means the variables A and B should just be entered once before the first calculation (either hard coded or via user input), and used throughout all the calculations without re-entering, or re-hard-coding the number. Consequently, it will be the same value in each calculation.
- 30%: Document all code.
    - Comments must be thorough and correct but not redundant.
    - Explain both what you're doing and why you're doing it.
- 10% bonus: Take user input for A and B. Must meet all the criteria above to be eligible for this bonus.
- 10% bonus: Create all three functions as functions. Be sure to handle caller-saved and callee-saved register saving appropriately. Must meet all the criteria above to be eligible for this bonus.
- Code that does not compile using the Makefile on Vulcan will result in an automatic zero.
- NOTE: Writing C code and converting it into Assembly and submitting the compiler generated Assembly is **STRICTLY PROHIBITED** and will result in an automatic zero.