

Assignment2 - Due:

Wednesday, September 2nd

5pm

Assignment

CSE/EEE230 Assignment2

Due Date

Wednesday, September 2nd 5pm

Important: This is an individual assignment. Please do not collaborate.

It must be submitted on-line (course website).

Go to "GradeScope" tab on Canvas -> CSE/EEE230 -> Assignment2, and upload your program file.

No late assignment will be accepted

Minimal Submitted Files

You are required to turn in the following source file:

assignment2.s

Objectives:

- write an assembly language program to:
 - load addresses of variables or values of variables into registers.
 - perform arithmetic and logical operations on variables
 - use **syscall** operations to display integers and strings on the console window

Assignment Description:

Write a MIPS assembly language program that adds the following two integers and displays the sum and the difference. In the `.data` section, define two variables **num1** and **num2** both words. Initialize num1 to 91543₁₀ and num2 to D8C₁₆ (use 0x D8C to initialize, Note that D8C is a hexadecimal number). Your main procedure/function should load the values of **num1** and **num2** into two temporary registers, and display them on the console window. Then add the values together, and use **syscall** for the **print_int** system call function to display the sum on the console window. Also compute the difference of two numbers and display it on the console window. (Reference: see Assignment 1) To print an integer on the console window, you must put the integer to be printed in the \$a0 register, and the value 1 in the \$v0 register. Then perform a **syscall** operation. This makes a call to the SPIM operating system which will display the integer in \$a0 on the console window. **Name your source code file assignment2.s.**

Your output format should look as follows:

```
num1 is: XXX
num2 is: XXX
num1+num2 = XXX
num1-num2 = XXX
```

where XXX is the correct number for each number and they should be printed in decimal.

What to turn in::

-Upload your assignment2.s file through the assignment submission link on the course website by the assignment deadline. You must have your name, email address, program description, and other information in the header block as it was described in the assignment 1, and your programs should be well commented.

Go to "GradeScope" tab on Canvas -> CSE/EEE230 -> Assignment2, and upload your program file.

Grading Criteria:

____/ 5 Documentation (header with your name, your information, and program description and comments within your code)

____/ 1 Indentation and spacing (easy to read)

____/ 6 Required functions and functionalities implemented

____/ 8 Produces correct results?

Total points: 20

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