

# Computer Organization & Assembly Language (CSD 203/CSC 222) LAB

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## Lab - Assignment - week2 Lab 1

**Objectives:**

* **Defining variables (i.e. Using DB,DW,DD,DQ,DT)**
* **How to write bin,decimal,hex numbers and ASCII chars**
* **Use of EQU**
* **Using ADD, SUB**
* **Valid operands for ADD & SUB**
* **INC & DEC instruction**
* **XCHG instruction**
* **NEG instruction**

### Question 1:

Write a program that does the following in given order:

1. Define 4 word-type variables named var1,var2,var3 and var4 initialized to zero
2. Move following values in variables var1= 4AC8(hex) , Var2 = 478 (decimal), var3= 0110\_1010\_0010\_1101 (binary) and var4 = ‘BD’ (chars)
3. ADD var1 and var2 and store its result in var1. What answer do you expect in var1
4. SUB var1 from var3 and store result in var3 . What answer do you expect in var3.
5. Increment var3 and decrement var1
6. Swap the values of var1 and var4
7. Gets the negative value of var3

### Question 2:

Suppose you define a byte variable var5 initialized to some value. Can you add it to var1 , subtract it from var2 , swap it with var3 and get it's negative value?