INTRODUCTION TO MICROCOMPUTERS LAB.

152115025

Homework #2
(ARITHMETIC INSTRUCTIONS)

GNUSim8085 will be used as a simulator during the evaluation of the first four assignments.
https://gnusim8085.srid.ca/download

- Parts of your student number will be used as the variables and these will be re-sorted in the order given
(e.g. 15h -> 03h (3rd order), 21h -> 02h (2nd order)). (50p)

```
order:           db 03h, 02h, 01h, 04h, 06h, 05h
variables:       db 15h, 21h, 20h, 24h, 10h, 11h

sortedvariables: db 20h, 21h, 15h, 24h, 11h, 10h
```

Since the given order **will be random** during the check, your application must work dynamically to ensure this. Your are expected to do using a subroutine, not manually step by step. The conditional branch structure given in the sample code (see main couse announcements) will be sufficient, you may need to use all register pairs in addressing during the sorting process. The process will not be awarded points if it is not carried out dynamically in accordance with the random order. You are expected to store the sortedvariables in memory starting **at address 1000h**.

- The variables you store in memory **should be used in pairs** to produce hexadecimal values (e.g. using the sortedvariables in the given sample 2021h, 1524h, 1110h). These hexadecimal values should be summated **by using bcd sum**, and the results should be stored to **consecutive addresses starting from 1006h, following little-endian logic**. (50p)

Save your completed work in the file named “152120XX10XX_AdSoyad_HwX.asm” and zip it into file of the same name (not .asm.zip!). Upload the zip file to the relevant section on the UZEM.

As indicated in the orientation, make sure that the comments on your work are descriptive, as this will be effective in scoring.