INTRODUCTION TO MICROCOMPUTERS LAB.

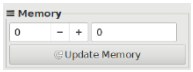
152115025

Homework #1
(DATA TRANSFER 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 addresses such as *"152120241000" -> "1521h", "2024h" & "1000h"*.

- Calculate the address values as decimal and add them as a comment to your code (`2024h ; 8228`). (5p)
- Using the "Memory" tool in the interface, set the value stored at address "1521h" to "0bh". (5p)



- Set the value stored at address "2024h" to "0dh" **using the direct addressing method**. (15p)
- Set the value stored at address "1000h" to "0fh" **using the indirect addressing method (over the most appropriate register pair).** (15p)

Check the correctness of the modifications after they have been made. Values and addresses on the interface can be both hexadecimal and decimal values. Please consider this if you encounter an error.

- Transfer values that you have set to the addresses in **memory to the registers**:

  "0bh -> B" "0dh -> D" "0fh -> H" (15p)

- **Using push and pop** instructions, swap the values:

  "0bh -> B to D" "0dh -> D to H" "0fh -> H to B" (20p)

- Output the value in register B **from the I/O port** with address "00h", use alias (equ) in your code, the value in register D **from the I/O port** with address "01h" and the value in register H **from the I/O port** with address "02h". (15p)

Check the correctness of your outputs from the "I/O ports" tab.

- Load your program at different memory address and comment out the differences you detected on the memory content. (10p)

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.