1. Download and Install Vmware Player 12.5.2 from here ->
   https://my.vmware.com/en/web/vmware/free#desktop_end_user_computing/vmware_workstation_player/12_0
2. Download ubuntu vmware image from here ->
3. Import virtual machine to vmware if you get an hyper-v error you can check here
   http://csharpyazilimci.blogspot.com.tr/2014/11/hata-cozumu-vmware-workstation-and.html
4. Run virtual machine Username: cse312 Password: 1234
5. In Desktop there is a Readme file and sample zip. **Ignore that files format changed!**
6. **HW Format**

   Folder: **YourStudentNumber_**HW**number**

   Contents:

   > gtuos.h
   >
   > gtuos.cpp
   >
   > main.cpp
   >
   > ProgramName1.asm
   >
   > ProgramName2.asm
   >
   > .
   >
   > .
   >
   > .
   >
   > ProgramNameN.asm

   For example for first HW filenames must be **PrintNumbers**,**PrintNumbersRev** etc.

   After you complete your homework compress it with zip format with same folder name (**YourStudentNumber_**HW**number**.zip) and upload it to moodle.

   Care!: Your homework doesn't include 8080emu.cpp or 8080emuCPP.h or any com files !!!

   If your program won't compile in this virtual machine properly you wont get graded.

   Sample output for **sum.asm**

   ./emu8080 sum.com   0

   ```
   System Call: PRINT_B
   Value of B 7
   Total Number of Cycles 150
   ```

./emu8080 sum.com 1

```
0004 PUSH    D            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP effa
0005 PUSH    H            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP eff8
0006 PUSH    PSW          z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP eff6
System Call: PRINT_B
Value of B 7
0007 NOP                  z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP eff6
0008 POP     PSW          z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP eff8
0009 POP     H            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP effa
000a POP     D            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP effc
000b POP     D            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP effe
000c RET                  z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP f000
0027 HLT                  z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP f000
Total Number of Cycles 150
```

./emu8080 sum.com 2

```
0006 PUSH    PSW          z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP eff6
System Call: PRINT_B
Value of B 7

0007 NOP                  z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP eff6

0008 POP     PSW          z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP eff8

0009 POP     H            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP effa

000a POP     D            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP effc

000b POP     D            z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP effe

000c RET                  z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP f000

0027 HLT                  z.p..  A $01 B $37 C $00 D $00 E $00 H $00 L $00 SP f000

Total Number of Cycles 150
```

You can use cin.get() for waiting keyboard input (ENTER)

Dont forget to save memory content.