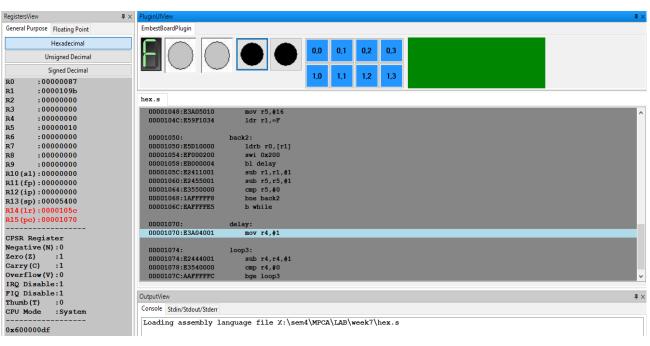
H M Mythreya PES2UG20CS130 MPCA-Lab Week-7

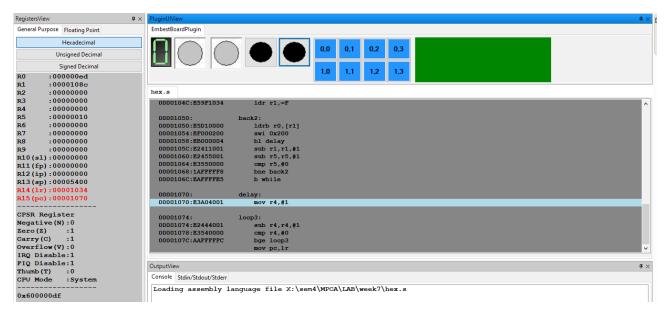
Task 1:Display hexadecimal digits [0-9,A-F] on the 8-segment display. Also display PES on the 8-segment display

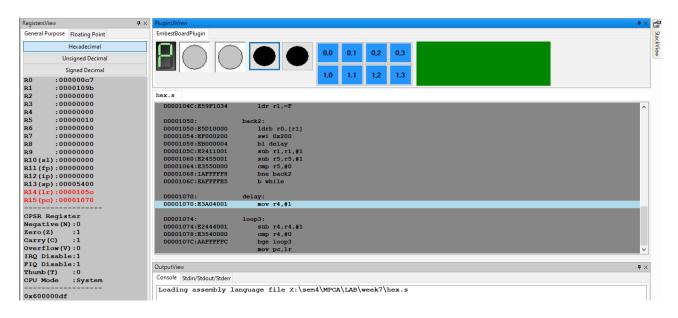
Code:

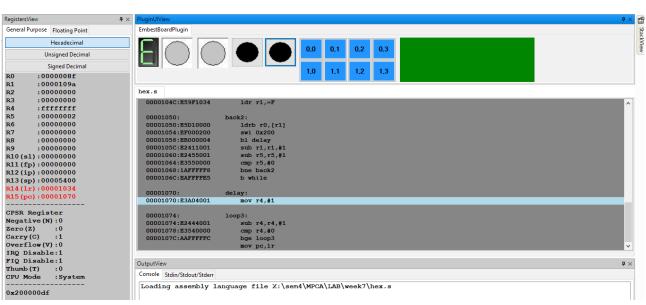
```
.data
    zero: .byte 0b11101101
    one: .byte 0b01100000
    two: .byte 0b01101110
    three: .byte 0b11111010
    four: .byte 0b00110011
    five: .byte 0b10101011
    six: .byte 0b10101111
    seven: .byte 0b01110000
    eight: .byte 0b11101111
    nine: .byte 0b11100011
    A: .byte 0b11100111
    B: .byte 0b00101111
    C: .byte 0b10001101
    D: .byte 0b01101110
    E: .byte 0b10001111
    F: .byte 0b10000111
.text
begin:
    mov r0,#0
    mov r2,#0
while:
    swi 0x202
    cmp r0,#1
    beq loop1
    cmp r0,#2
    beq loop2
    b while
loop1:
    mov r5,#16
    ldr r1,=zero
back1:
    ldrb r0,[r1]
    swi 0x200
    bl delay
    add r1, r1, #1
    sub r5, r5, #1
    cmp r5,#0
    bne back1
    b while
```

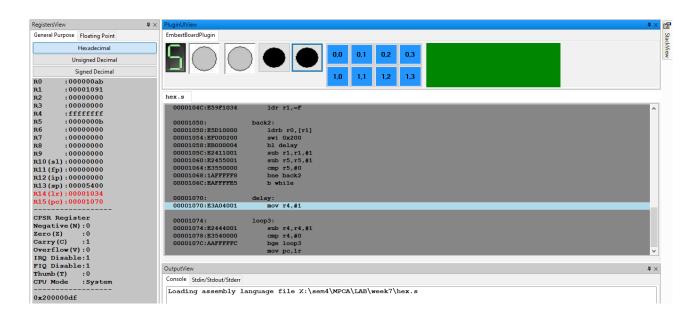
```
loop2:
    mov r5,#16
    ldr r1,=F
back2:
    ldrb r0,[r1]
    swi 0x200
    bl delay
    sub r1, r1, #1
    sub r5, r5, #1
    cmp r5,#0
    bne back2
    b while
delay:
    mov r4,#1
loop3:
    sub r4, r4, #1
    cmp r4,#0
    bge loop3
    mov pc, lr
```











Task 2: Move a string from RIGHT to LEFT on the LCD display panel. Display your name on the LCD Panel

```
Code:
.data
           str: .asciz "MYTHREYA\n"
.text
           mov r0,#25
           mov r1,#3
           ldr r2,=str
loop:
           cmp r0,#0
           beq exit
           swi 0x204
           sub r0, r0, #1
           swi 0x206
           b loop
exit:
           swi 0x01
                                                         PluginUlView
   General Purpose Floating Point
                                                          EmbestBoardPlugin
                     Hexadecimal
                  Unsigned Decimal
  Signed Decimal
                                                                                                                                1.0
                                                                                                                                          1,1
                                                                                                                                                    1,2
                                                                                                                                                              1,3
                                                          asciiLtoR1.s
                                                                                                .data
str: .asciz "MYTHREYA\n"
                                                                                               .text

mov r0,#25

mov r1,#3

ldr r2,=str
                                                             00001000:E3A00019
00001004:E3A01003
00001008:E59F2018
                                                             0000100C:
0000100C:E3500000
00001010:0A000003
00001014:EF000204
00001018:E2400001
0000101C:EF000206
                                                                                                    p:
cmp r0,#0
beq exit
swi 0x204
sub r0,r0,#1
                                                                                                     swi 0x206
                                                              00001020:EAFFFFF9
   CPSR Register
Negative(N):0
                                                                                              exit:
swi 0x01
                                                             00001024:
00001024:EF000001
00001028:0000102C
   Zero(Z) :0
Carry(C) :1
Overflow(V):0
   IRQ Disable:1
FIQ Disable:1
   Thumb (T)
CPV Mode
                    :System
   0x200000df
                                                   # × PluginUlView
  RegistersView
   General Purpose Floating Point
                                                           EmbestBoardPlugin
                     Hexadecimal
                                                                                                                                   0.0
                                                                                                                                             0,1
                                                                                                                                                       0.2
                                                                                                                                                                 0.3
                   Unsigned Decimal
                                                                                                                                                                                                MYTHREYA
                     Signed Decimal
  Signed Decir
R0 :0000000f
R1 :00000003
R2 :0000102c
R3 :00000000
R4 :00000000
R5 :00000000
R6 :00000000
R8 :00000000
R9 :00000000
R10 (s1) :00000000
R12 (ip) :00000000
R13 (sp) :00005400
R14 (lr) :00000000
                                                                                                                                   1.0
                                                                                                                                             1,1
                                                                                                                                                        1,2
                                                           asciiLtoR1.s
                                                                                                  data
str: .asciz "MYTHREYA\n"
                                                                                                .text

mov r0,#25

mov r1,#3

ldr r2,=str
                                                              00001000:E3A00019
00001004:E3A01003
00001008:E59F2018
                                                                                                loop:

cmp r0,#0

beq exit

swi 0x204

sub r0,r0,#1

swi 0x206
                                                              0000100C:
0000100C:E3500000
00001010:0A000003
                                                              00001014:EF000204
00001018:E2400001
   R14(lr):00000000
R15(pc):00001018
                                                               0000101C:EF000206
00001020:EAFFFFF9
   CPSR Register
   Negative(N):0
Zero(Z):0
   Zero(Z) :0
Carry(C) :1
Overflow(V):0
                                                                                                       swi 0x01
                                                              00001024:EF000001
00001028:0000102C
```

IRQ Disable:1
FIQ Disable:1
Thumb(T) :0
CPU Mode :System

0x200000df