

**Ahsanullah University of Science & Technology**

**Department of Computer Science & Engineering**

Course No : CSE3108

Course Title Assignment No

: Microprocessors Sessional

**: 06**

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Submitted To

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Submitted By-

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: A

Question: right to left

Answer:

.model small

.stack 100h

.data

dot db 01h,03h,07h,0fh,01fh,03fh,07fh,01h,041h,01h,041h,02h,022h ,04h,0ch,01ch, 01h,03h,07h,0fh,01fh,03fh,07fh,01h,09h,01h,09h,19h,02h,06h,26h,40h , 04h,0ch,1ch,3ch,7ch, 02h,0ah, 01h,09h, 02h,0ah, 04h,0ch,1ch,3ch,7ch, 04h,44h, 02h,42h, 01h,03h,07h,0fh,1fh,3fh,7fh, 40h,40h

dotport dw 7 dup (2000h),2 dup (2001h),2 dup (2002h),2 dup (2003h),3 dup (2004h), 7 dup (2005h), 2 dup (2006h),3 dup (2007h),3 dup (2008h),2009h, 5 dup (200Ah) , 2 dup (200Bh) , 2 dup (200Ch), 2 dup (200Dh), 5 dup (200Eh), 2 dup (200Fh), 2 dup (2010h),7 dup ( 2011h),2012h,2013h

ssd db 40h,60h,61h,63h,67h,6fh,01h,03h,07h,0fh,1fh,3fh,01h,03h,43h,53h,5bh,01h,03h,07h,0fh,1fh,3fh,20h,60h,62h,66h, 01h,03h,07h,0fh,1fh,3fh, 01h,03h,07h,0fh,1fh,3fh, 01h,03h,43h,53h,5bh

ssdport dw 6 DUP(2030h),6 DUP(2031h),5 DUP(2032h),6 DUP(2033h),4 DUP(2034h),6 DUP(2035h),6 DUP(2036h),5 DUP(2037h)

led db 16 DUP(04h),16 DUP(06h),16 DUP(07h),(06h),13 DUP(07h)

ledport dw 61 dup(2070h)

dots db 7fh,41h,41h,22h,1ch, 7fh,09h,19h,26h,40h, 7ch,0ah,09h,0ah,7ch, 44h,42h,7fh,40h,40h

.code

main proc

mov ax, @data

mov ds, ax

;first appearence

mov cx,61

mov si,0

mov di,0

ssdot:

push cx

mov cx,09h

mov dx,ledport[di]

mov al,led[si]

out dx,al

mov dx,ssdport[di]

mov al,ssd[si]

out dx,al

mov dx,dotport[di]

mov al,dot[si]

out dx,al

inc si

add di,2

delay1:

loop delay1

pop cx

loop ssdot

;scroll

mov cx,6

start:

push cx

mov bx,2013h

mov cx,40

shift:

push cx

mov dx,bx

mov al,00h

out dx,al

dec bx

cmp bx,2000h

jnl nc1

mov bx,2027h

nc1:

mov dx,bx

mov cx,20

mov si,19

place:

mov al,dots[si]

out dx,al

dec si

dec dx

cmp dx,2000h

jnl nc2

mov dx,2027h

nc2:

loop place

mov cx,09h

delay2:

loop delay2

pop cx

loop shift

pop cx

loop start

; clear sssd,led,dot

mov dx,2030h

mov al,00h

mov cx,8

clrssd:

out dx,al

inc dx

loop clrssd

mov dx,2070h

out dx,al

mov cx,20

mov dx,2013h

remove:

out dx,al

dec dx

loop remove

mov ah,4Ch

int 21h

main endp

end main

