COMPUTER ORGANIZATION & ASSEMBLY LANGUAGE

PROJECT

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CSC-18F-076

CS-IVB

Submitted to:

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```
.model small
.stack 100h
.code

start:

mov ah,0          ; set mode
mov al,13h        ; mode=13VGA High resolution
int 10h           ; invoke the interrupt to change to video mode

;S starts
mov cx,114        ; start line at column=114
mov dx,125        ; row=125
s1:

mov ah,0ch        ; ah=0ch to draw a line
mov al,04h        ; pixels=Red color - color change karta Hai
int 10h           ; invoke the interrupt
dec dx            ; Decrement the vertical position
cmp dx,100        ; draw line until row=100

jnz s1


mov cx,114
mov dx,100

s2:

mov ah,0ch        ; ah=0ch to draw a line
mov al,04h        ; pixels=Red color
int 10h           ; invoke the interrupt
inc cx            ; increment the horizontal position
cmp cx,150        ; draw line until column=150
jnz s2


mov cx,114
mov dx,125

s3:

mov ah,0ch        ; ah=0ch to draw a line
mov al,04h        ; pixels=Red color
```

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int 10h          ; invoke the interrupt
inc cx           ; increment the horizontal position
cmp cx,150       ; draw line until column=150

jnz s3


mov cx,150       ; start line at column=150
mov dx,150       ; row=150
s4:

mov ah,0ch       ; ah=0ch to draw a line
mov al,04h       ; pixels=Red color; color change karta Hai
int 10h          ; invoke the interrupt
dec dx           ; Decrement the vertical position
cmp dx,125       ; draw line until row=125

jnz s4


mov cx,114
mov dx,150

s5:

mov ah,0ch       ; ah=0ch to draw a line
mov al,04h       ; pixels=Red color
int 10h          ; invoke the interrupt
inc cx           ; increment the horizontal position
cmp cx,150       ; draw line until column=150

jnz s5

; S ends

; M starts

mov cx,164       ; start line at column=154
mov dx,150       ; row=125
m1:

mov ah,0ch       ; ah=0ch to draw a line
mov al,03h       ; pixels=Red color color change karta Hai
int 10h          ; invoke the interrupt
```

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dec dx            ; Decrement the vertical position
cmp dx,100        ; draw line until row=100

jnz m1

mov cx,212        ; start line at column=154
mov dx,150        ; row=125
m2:

mov ah,0ch        ; ah=0ch to draw a line
mov al,03h        ; pixels=Red color              ; color change karta Hai
int 10h           ; invoke the interrupt
dec dx            ; Decrement the vertical position
cmp dx,100        ; draw line until row=100

jnz m2

mov cx,189
mov dx,124

m3:

mov ah,0ch        ; ah=0ch to draw a line
mov al,03h        ; pixels=Light Blue color
int 10h           ; invoke the interrupt
inc cx            ; increment the horizontal position
dec dx            ; Decrement the vertical position
cmp cx,216        ; draw line until column=100
cmp dx,100        ; draw line until row=100
jnz m3

mov cx,164
mov dx,100

m4:

mov ah,0ch
mov al,03h
int 10h
inc cx
inc dx
cmp cx,236
cmp dx,125
jnz m4
```

```
; M ends

; I start


mov cx,234      ; start line at column=154
mov dx,150      ; row=125
I1:

mov ah,0ch      ; ah=0ch to draw a line
mov al,06h      ; pixels=Red color - color change karta Hai
int 10h         ; invoke the interrupt
dec dx          ; Decrement the vertical position
cmp dx,100      ; draw line until row=100

jnz I1


;U Starts

mov cx,260
mov dx,150

U1:

mov ah,0ch
mov al,09h
int 10h
dec dx
cmp dx,100

jnz U1

mov cx,290
mov dx,150

U2:

mov ah,0ch
mov al,09h
int 10h
dec dx
```

```
cmp dx,100
jnz U2


mov cx,260
mov dx,150

U3:

mov ah,0ch
mov al,09h
int 10h
inc cx
cmp cx,290

jnz U3

; read keyboard
Mov ah,0
int 16h                 ; int 16h will communicate with keyboard
; set text mode
Mov ax,3
int 10h

Mov ah,4ch
int 21h

end start
```

OUTPUT: