**Computer Organization & Assembly Language**

**Tasks:**  
1. Draw the outline of the following shapes on screen:

* 1. Circle
  2. Triangle
  3. Square
  4. Rectangle
  5. Pentagon
  6. Hexagon
  7. Octagon

1. Draw a square full of pixels on screen.
2. Draw a border on the screen and write your name in the center of the screen.

.MODEL SMALL

.STACK 100H

.DATA

.CODE

mov ah,00h

mov al,13h

int 10h

;;;;;;Squaree

;;;;;leftt

mov bx, 30

mov cx,10h

mov dx,20

l1:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

pop cx

loop l1

;;;;;;;;;;;rightt

mov bx, 50

mov cx,10h

mov dx,20

l2:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

pop cx

loop l2

;;;;;;;;;uppp

mov bx, 30

mov cx,15h

mov dx,20

l3:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc bx

pop cx

loop l3

;;;;;;;;;;down

mov bx, 30

mov cx,15h

mov dx,36

l4:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc bx

pop cx

loop l4

;;;;;;;;;;rectangle

;;;;down

mov bx, 60

mov cx,20h

mov dx,36

l5:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc bx

pop cx

loop l5

;;;;;;;;;uppp

mov bx, 60

mov cx,20h

mov dx,20

l6:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc bx

pop cx

loop l6

;;;;;leftt

mov bx, 60

mov cx,10h

mov dx,20

l7:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

pop cx

loop l7

;;;;;;;;;;;rightt

mov bx, 91

mov cx,10h

mov dx,20

l8:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

pop cx

loop l8

;;;;;;;;;;;;Triangle

;;;;;;right

mov bx, 115

mov cx,10h

mov dx,20

l9:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

inc bx

pop cx

loop l9

;;;;;;left

mov bx, 115

mov cx,10h

mov dx,20

l10:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

dec bx

pop cx

loop l10

;;;;;;;;;;down

mov bx, 100

mov cx,20h

mov dx,36

l11:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc bx

pop cx

loop l11

;;;;;;square

;;;;;; top left

mov bx, 149

mov cx,3h

mov dx,20

l12:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

dec bx

pop cx

loop l12

;;;;;point up

mov bx, 150

mov cx,3h

mov dx,20

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

pop cx

;;;;;;top right

mov bx, 151

mov cx,3h

mov dx,20

l13:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

inc bx

pop cx

loop l13

;;;;;;bottom left

mov bx, 147

mov cx,3h

mov dx,24

l14:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

inc bx

pop cx

loop l14

;;;;;point bottom

mov bx, 150

mov cx,3h

mov dx,26

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

pop cx

;;;;;; bottom right

mov bx, 153

mov cx,3h

mov dx,24

l15:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

dec bx

pop cx

loop l15

;;;;;point left

mov bx, 147

mov cx,3h

mov dx,23

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

pop cx

;;;;;point right

mov bx, 153

mov cx,3h

mov dx,23

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

pop cx

;;;;;;;;;;;;;;;;;;Q3

;;;;;leftt

mov bx, 5

mov cx,190

mov dx,15

l16:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

pop cx

loop l16

;;;;;;;;;;;rightt

mov bx, 310

mov cx,190

mov dx,1

l17:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc dx

pop cx

loop l17

;;;;;;;;;uppp

mov bx,1

mov cx,320

mov dx,4

l18:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc bx

pop cx

loop l18

;;;;;;;;;;down

mov bx, 1

mov cx,320

mov dx,190

l19:

push cx

mov cx,bx

mov ah,0ch

mov al,14

int 10h

inc bx

pop cx

loop l19

;;;;;;;name

mov ax,@offset

mov ax,dx

mov ah,13h

mov al,13h

mov bh,1

mov bl,1111

mov cx,6

mov dh,30

mov dl,40

;;;;;;;;;;;;Q2

mov ah,4ch

int 21h

end