**TASK1**

.model small

.stack 100h

.data

Array db 0H,2H,4H,8H,10H

.code

mov ax, @DATA

mov ds, ax

mov ax,0

main proc

mov si,0

mov cx,5

Start:

mov al,Array[si]

push ax

inc si

Loop Start

mov si,0

mov cx,5

Star:

pop ax

mov Array[si],al

inc si

Loop Star

mov si,offset Array

mov ah,4ch

int 21h

main endp

end

**TASK 2**

.model small

.stack 100h

.data

Array db 1H,2H,4H,3H,5H

sm dw (0)

.code

mov ax, @DATA

mov ds, ax

mov ax,0

main proc

mov cx,5

mov si,0

Start:

mov al,Array[si]

push ax

inc si

Loop Start

Call sum

mov si,offset sm

mov ah,4ch

int 21h

main endp

sum proc

pop si

mov cx,5

S:

pop bx

add sm,bx

Loop S

push si

ret

sum endp

end

**TASK 3**

.model small

.stack 100h

.data

Array db "I live in Pakistan.Islamabad is its Capital city"

.code

mov ax, @DATA

mov ds, ax

mov ax,0

main proc

mov cx,sizeof Array

mov si,0

Start:

mov al,Array[si]

push ax

inc si

Loop Start

Call reverse

mov si,offset Array

mov ah,4ch

int 21h

main endp

reverse proc

pop si

mov cx,sizeof Array

mov di,0

S:

pop bx

mov Array[di],bl

inc di

Loop S

push si

ret

reverse endp

end

**Task 4**

.model small

.stack 100h

.data

Array db 1H,2H,4H,3H,5H

sm dw (0)

avg db (0)

hgh dw (0)

lo dw (0)

.code

mov ax, @DATA

mov ds, ax

mov ax,0

main proc

mov cx,5

mov si,0

Start:

mov al,Array[si]

push ax

inc si

Loop Start

Call sum

mov si,offset sm

Call average

mov si,offset avg

mov si,0

mov cx,lengthof Array

Stt:

mov al,Array[si]

push ax

inc si

Loop Stt

Call highest

mov si,offset hgh

mov si,0

mov cx,lengthof Array

Strt:

mov al,Array[si]

push ax

inc si

Loop Strt

Call lowest

mov si,offset lo

mov ah,4ch

int 21h

main endp

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sum proc

pop si

mov cx,5

S:

pop bx

add sm,bx

Loop S

push si

ret

sum endp

;===========================================================================================

average proc

mov ax,sm

mov bl,sizeof Array

div bl

mov avg,al

ret

average endp

;==========================================================================================

highest PROC

pop si

mov cx,lengthof Array

pop ax

highest21:

pop bx

cmp al,bl

jb a11

jmp done1

a11:

mov ax,bx

done1:

loop highest21

push si

mov hgh,ax

ret

highest endp

;===========================================================================================

lowest PROC

pop si

mov cx,lengthof Array

pop ax

highest21:

pop bx

cmp al,bl

ja a11

jmp done1

a11:

mov ax,bx

done1:

loop highest21

push si

mov hgh,ax

ret

lowest endp

end