

# Assignment # 4



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Section: V3

Course title: COAL

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Q1)

```
org 100h
.model small
.stack 100h

.data
var1 db 100 dup()
nl db 10, 13, '$'
.code

main proc

mov si, offset var1
mov [si], '$'
inc si

l1:
    mov ah, 1
    int 21h
    cmp al, 0DH
    je l15
    mov [si], al
    inc si
    jmp l1

l15:
    dec si
    jmp l2

l2:
    mov ah, 2
    cmp [si], '$'
    je exit
    mov dl, [si]
    int 21h
    dec si
    jmp l2

exit:
    mov ah, 4ch
    int 21h

main endp
end main
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Q2)

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| <pre> org 100h .model small  .data A1 db 10 dup('\$') A2 db 10 dup('\$') A3 db 10 dup('\$') A4 db 10 dup('\$')  str1 db "Enter 3 Values: \$" nl db 10, 13, '\$'  addline db "Addition: \$" subline db "Subtraction: \$"  .code  main proc mov ah, 9 lea dx, str1 int 21h  mov si, offset A1 mov cx, 3 jmp l1 ;inserting in 1st array l1:     mov ah, 1     int 21h     mov [si], al     inc si loop l1 ;----- </pre> | <pre> mov ah, 9 lea dx, nl int 21h  lea dx, str1 int 21h  mov si, offset A2 mov cx, 3 jmp l2  ;inserting 2<sup>nd</sup> arr l2:     mov ah, 1     int 21h     mov [si], al     inc si loop l2  ;Adding mov cx, 3 mov bx, 0 jmp loop-addition  loop-addition:     mov si, offset A1     mov dl, [si+bx]     mov si, offset A2     add dl, [si+bx]     sub dl, 30h      mov si, offset A3     mov [si+bx], dl     inc bx  loop loop-addition </pre> | <pre> mov ah, 9 lea dx, nl int 21h lea dx, addline int 21h lea dx, A3 int 21h  ;Subtraction mov cx, 3 mov bx, 0 jmp loop-Subtraction  loop-Subtraction:     mov si, offset A1     mov dl, [si+bx]     mov si, offset A2     add dl, [si+bx]     sub dl, 30h      mov si, offset A4     mov [si+bx], dl     inc bx  loop loop-Subtraction  mov ah, 9 lea dx, nl int 21h lea dx, subline int 21h lea dx, A4 int 21h  mov ah, 4ch int 21h  main endp end main </pre> |
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Q3)

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| <pre> org 100h .model small  .data array 1:     db 0,0,0,     db 0,0,0,     db 0,0,0,     db 0,0,0, array2:     db 0,0,0,     db 0,0,0,     db 0,0,0,     db 0,0,0, array3:     db 0,0,0,     db 0,0,0,     db 0,0,0,     db 0,0,0,     db 0,0,0,  row db 5; rows col db 3; cols temp db 0  str1 db 13,10,"Enter Values: \$" str2 db 13,10," Values: \$"  nl db 13,10, "\$" .code Main proc  ;input array1 Mov bx,offset array1 Mov ch,0 Mov cl,5  Outer1: Lea dx,nl Mov ah,09h Int 21h  Mov row,cl Mov si,0 Mov cl,col </pre> | <pre> Inner1:     Mov ah,01h     Int21h     Mov[bx+si],al     Add si,1     Loop inner1     Mov cl,row     Inc bx     Loop ourter1  Mov ah,09h Lea dx, nl int 21h  ;input array2 Mov bx, offset array2 Mov bp,offset array1 Mov h,0 Mov cl,5  Outer2:     mov ah, 9     lea dx, nl     int 21h      Mov row,cl     Mov si,0     Mov cl,col      Inner2:         Mov ah,01h         Int 21h         Mov[ bx+si], al         Mov dl, [bp+si],         dl         Add bx+si], dl         Sub [bx+si], 48         Add si,1         Loop inner2         Mov cl ,row         Inc bx         Inc bp         Loop outer2 </pre> | <pre> mov ah, 9 lea dx, nl int 21h int 21h  ;moving to array3 and print resultant Mov bx, offset array2 Mov bp, offset array3 Mov ch,0 Mov cl,5  Outer3:     Mov row, cl     Mov si,0     Mov cl, col     Mov ah, 02h      Inner3:         Mov al,[bx+si]         Mov[bp+si],al         Mov dl,[bp+si]         Int 21h         Add si, 1         Loop inner3      Mov cl,row     Inc bx inc bp      mov ah, 9     lea dx, nl     int 21h      Loop outer3  Main endp End main </pre> |
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Q4)

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| <pre> org 100h .model small .stack 100h .data array1 db 0,0,0, db 0,0,0, db 0,0,0, db 0,0,0, array2 db 0,0,0, db 0,0,0, db 0,0,0, db 0,0,0, db 0,0,0, array3 db 0,0,0, db 0,0,0, db 0,0,0, db 0,0,0,  row db 5 col db 3 sumclal db '\$' sumc2a2 db 0  str1 db 13,10,"Enter value: \$" str2 db 13,10,"value: \$" nl db 13,10,"\$"  .code Main proc  Mov bx,offset array1 Mov ch,0 Mov cl,5 Outer1:      Lea dx, space     Mov ah,09h     Int 21     Mov row,col     Mov si,0     Mov cl,col      Inner1:         Mov ah,01h         Int 21h         Mov[bx+si],al         Add si,1         Loop inner1      Mov cl,row     Inc bx     Loop outer1      mov ah,9     lea dx, nl     int 21h     int 21h      Mov bx,offset array2     Mov ch,0     Mov cl,5     Outer2:         Lea dx,space         Mov ah,09h         Int 21h         Mov row,col         Mov si,0         Mov cl,col         Inner2:             Mov ah,01h             Int 21             Mov[bx+si],al             Add si,1             Loop inner2          Mov cl,row         Inc bx         Loop outer2          Lea dx, space         Mov ah,09h         Int 21         Mov row,col         Mov si,0         Mov cl,col </pre> | <pre> Inner1:     Mov ah, 01h     Int 21h     Mov[bx+si],al     Sub [bx+si],48     Add si, 1     Loop inner 1      Mov cl, row     Inc bx     Loop outer1  mov ah,9 lea dx, nl int 21h int 21h  Mov bx,offset array2 Mov ch,0 Mov cl,5 Outer2:     Lea dx,space     Mov ah,09h     Int 21h     Mov row,col     Mov si,0     Mov cl,col     Inner2:         Mov ah,01h         Int 21         Mov[bx+si],al         Add si,1         Loop inner2      Mov cl,row     Inc bx     Loop outer2 </pre> | <pre> Mov ah,09h Lea dx,nl Int 21h int 21h  Mov bx,offset array2 Mov ch,0 Mov cl,5 Mov si,0 Mov dl,0  Outer8;     Add dl,[bx+si]     Mov sumclal,dl     Inc bx     Loop outer8     Lea dx,str2     Mov ah,09h     Int 21h      Mov dl,0     Sub sumclal,7     Mov ah,02h     Mov dl,sumclal     Int 21h     Main endp     End main ret </pre> |
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