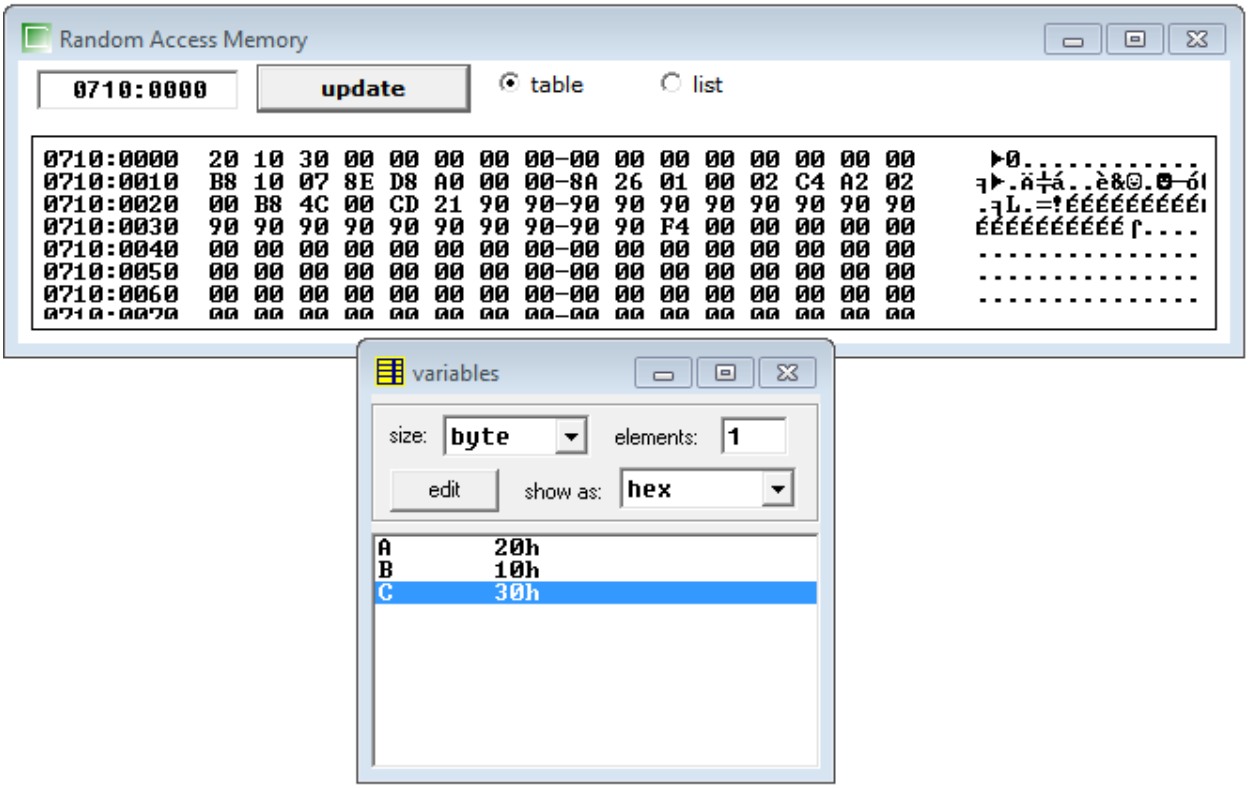
Prn:- 2017033800104963 Name:- Vraj Rana

Assignment 2

1) write a program to add two 8 bit numbers.

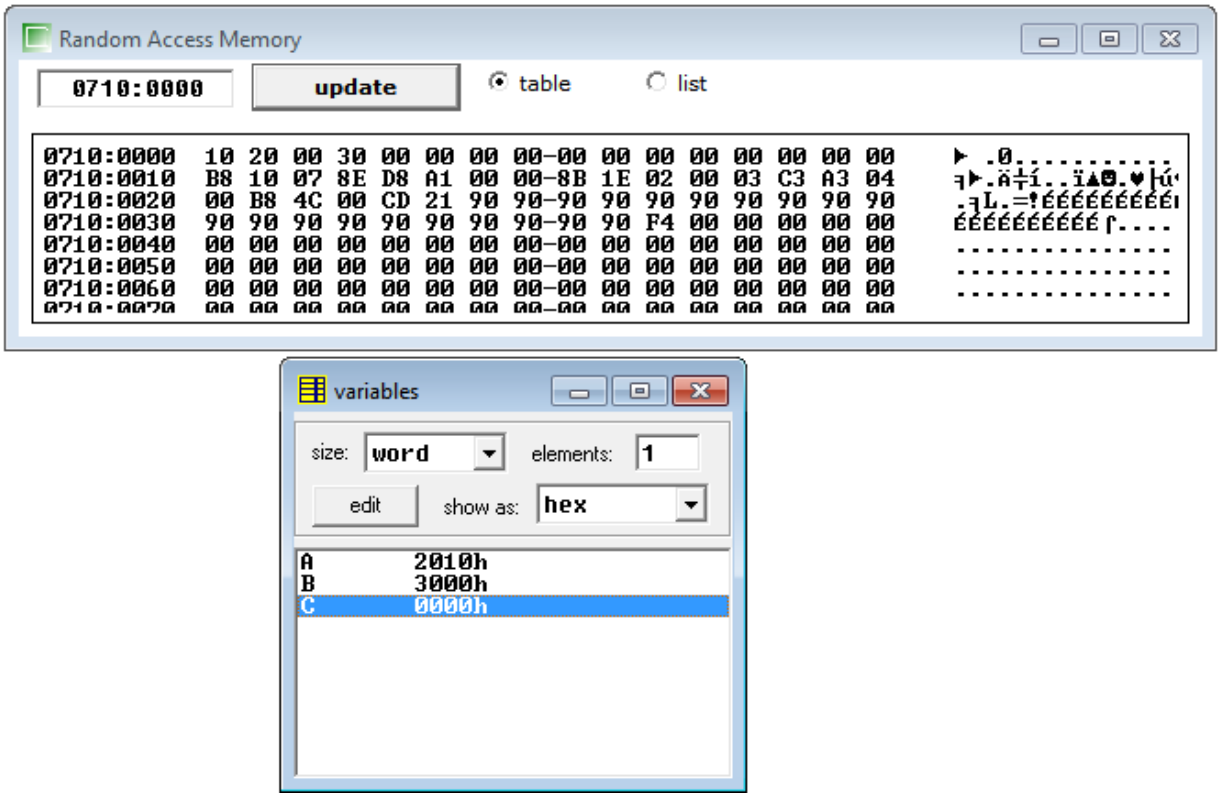
```
.model small
.data
a db 20h
b db 10h
c db ?

.code
main proc near
    mov ax,@data
    mov ds,ax
    mov al,a
    mov ah,b
    add al,ah
    mov c,al
    mov ax,4ch
    int 21h
endp main
end main
```



2) Write program to add two 16 bit numbers.

```
.model small

.data

a dw 2010h

b dw 3000h

c dw ?


.code

main proc near

    mov ax,@data

    mov ds,ax

    mov ax,a

    mov bx,b
```

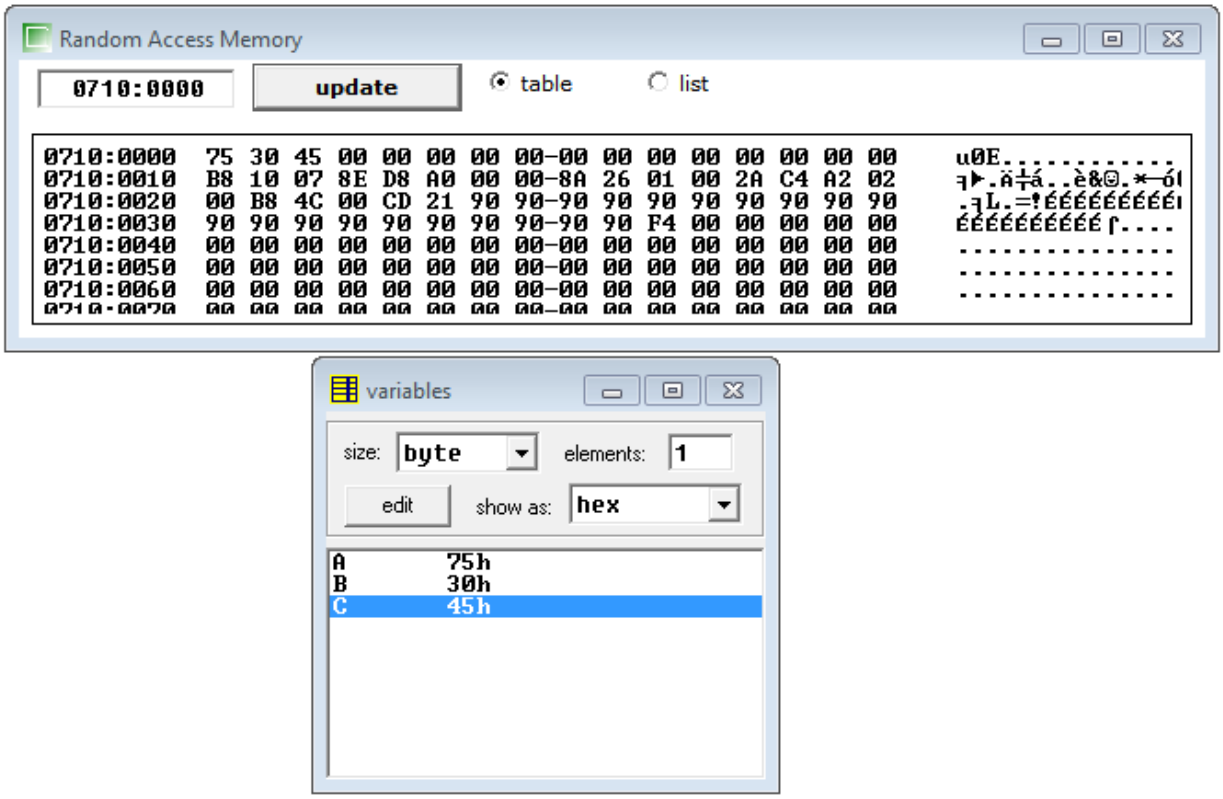
```
        add ax,bx
        mov c,ax
        mov ax,4ch
        int 21h
endp main
end main
```



3) Write program to subtract two 8 bit numbers.

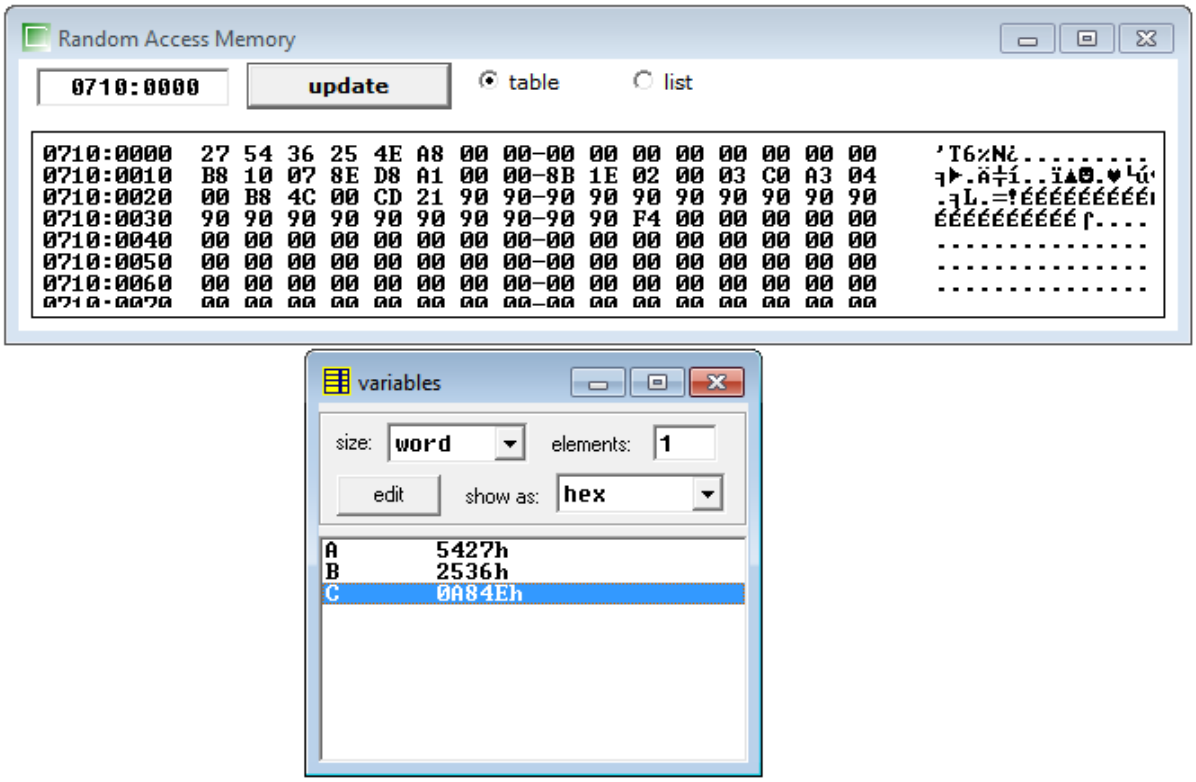
```
.model small
.data
a db 75h
b db 30h
c db ?
```

```
.code
main proc near
    mov ax,@data
    mov ds,ax
    mov al,a
    mov ah,b
    sub al,ah
    mov c,al
    mov ax,4ch
    int 21h
endp main
end main
```



4) Write a program to subtract two 16 bit numbers.

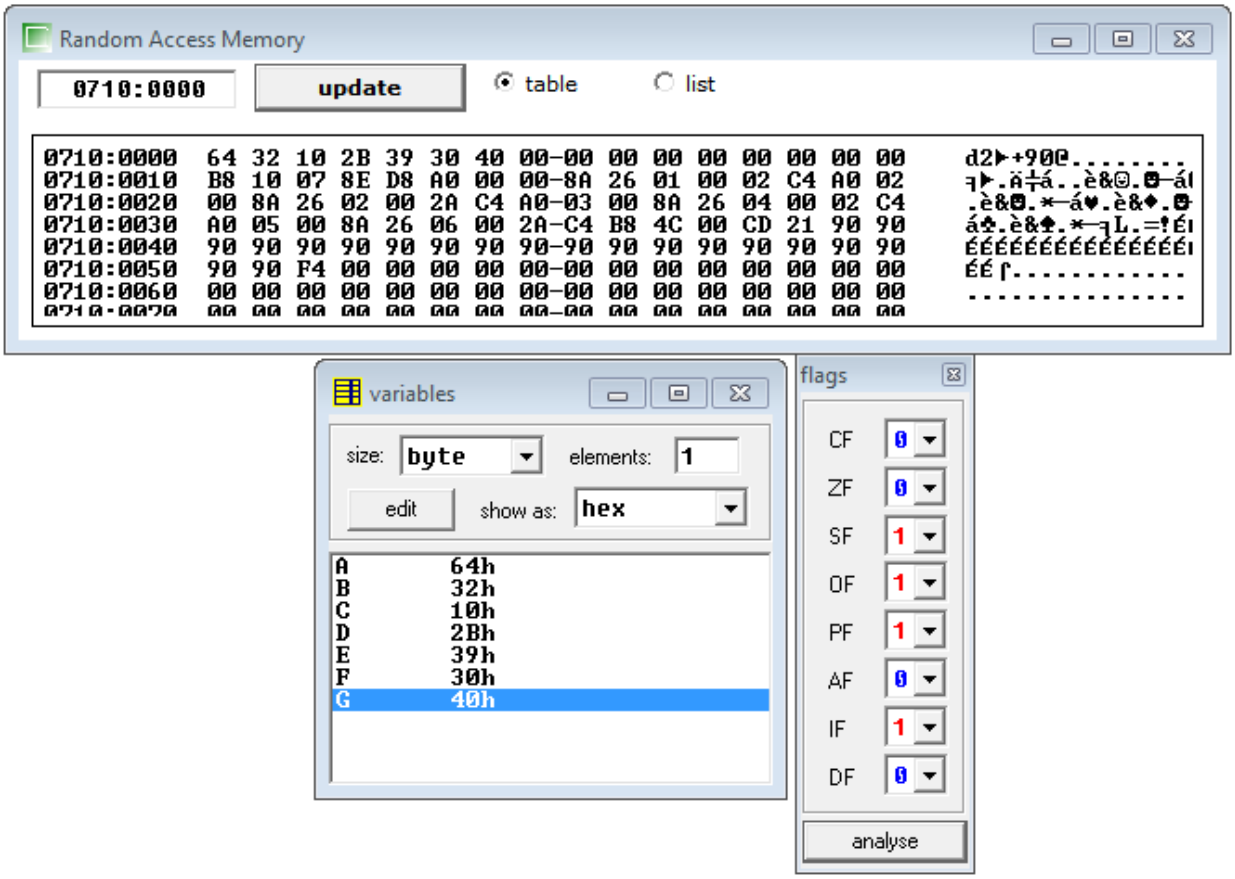
```
.model small
.data
a dw 5427h
b dw 2536h
c dw ?

.code
main proc near
    mov ax,@data
    mov ds,ax
    mov ax,a
    mov bx,b
    add ax,ax
    mov c,ax
    mov ax,4ch
    int 21h
endp main
end main
```

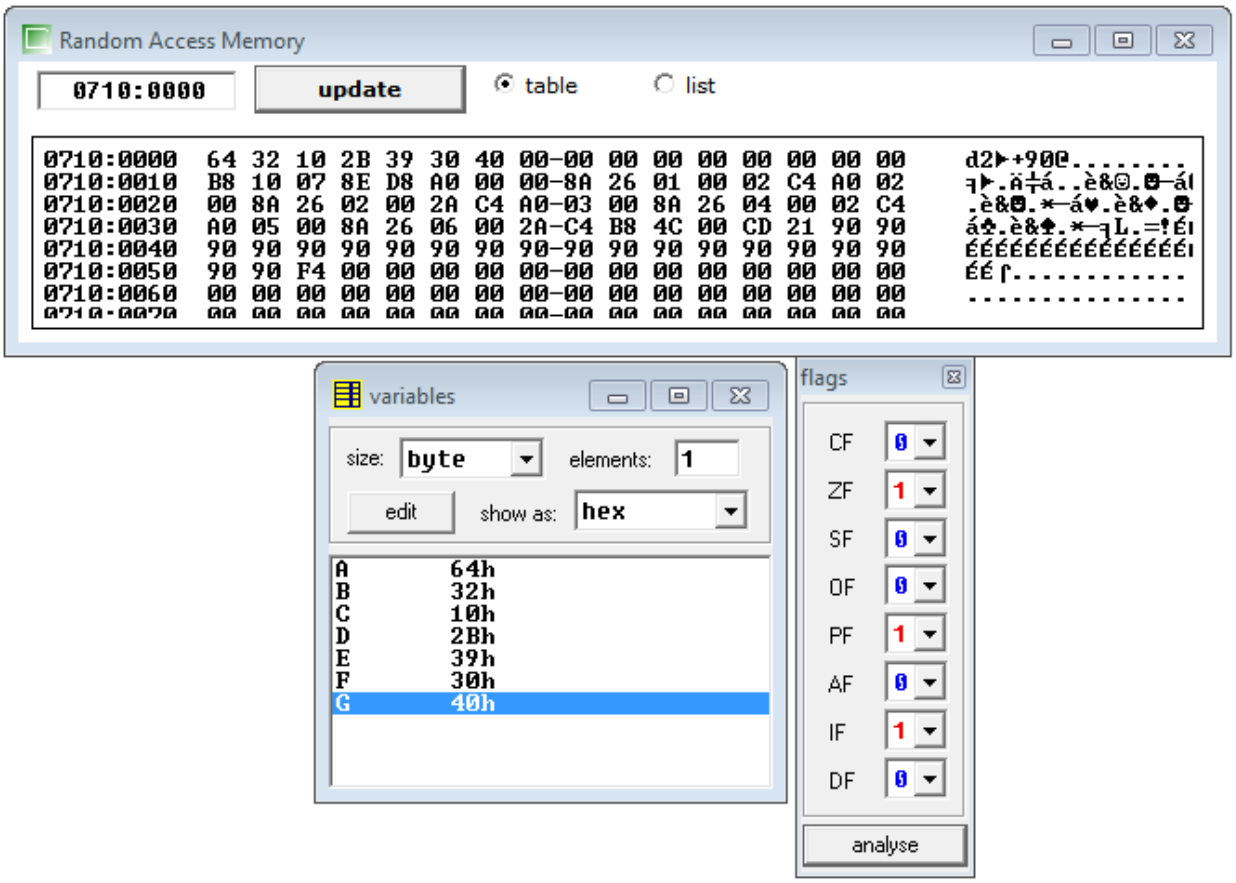


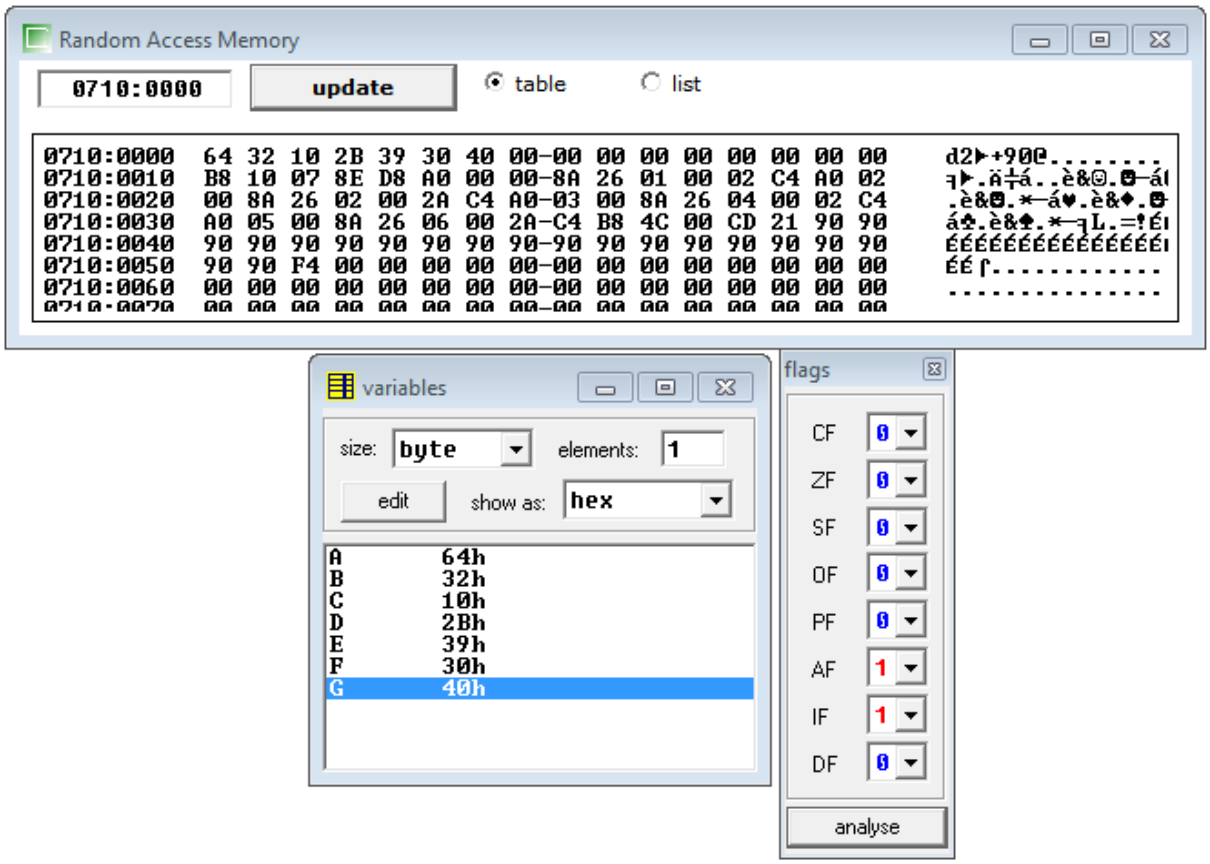
5) Write a program to set following flags. 1 CF 2AF 3 ZF 4 SF 5 OF 6PF

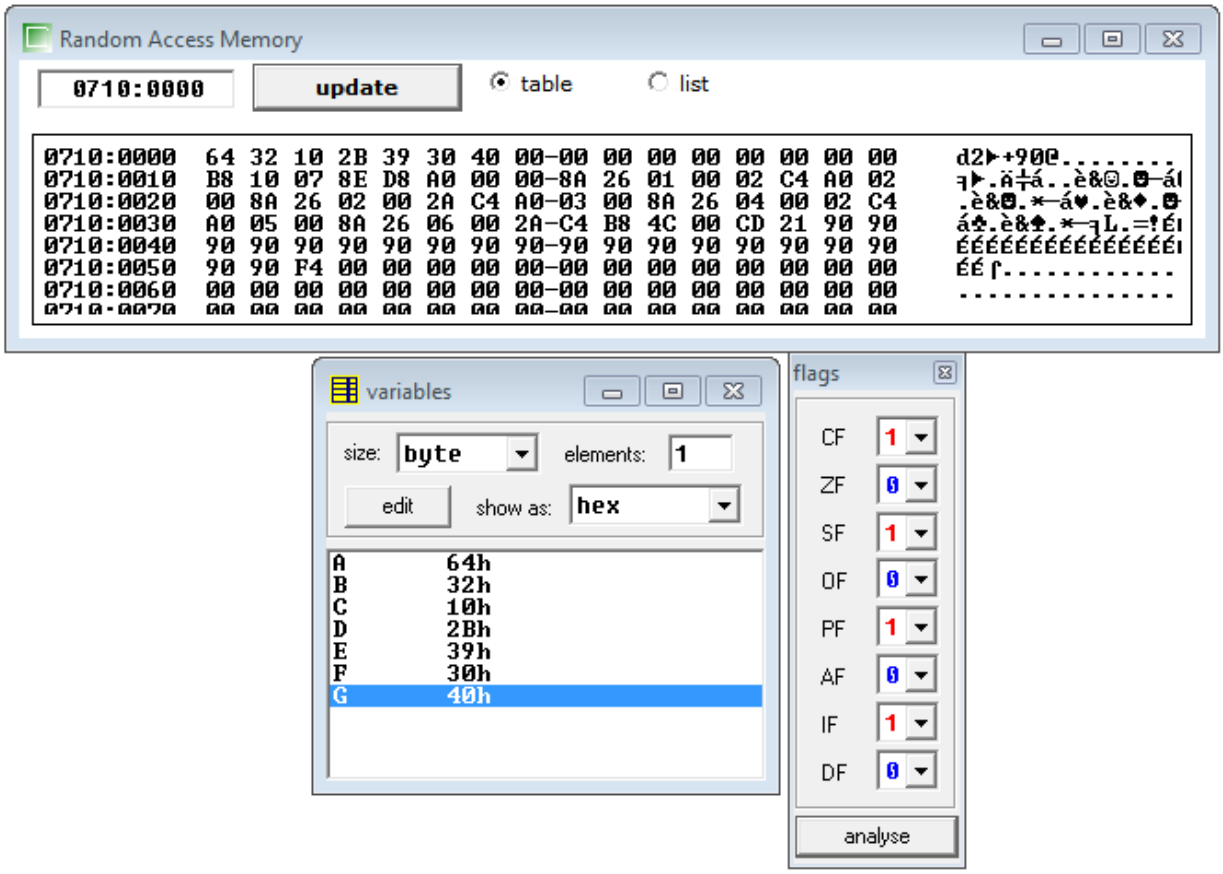
```
.model small

.data

a db 100

b db 50

c db 10h

d db 2bh

e db 39h

f db 30h

g db 40h


.code

main proc near
```

```
    mov ax,@data
    mov ds,ax
    mov al,a
    mov ah,b
    add al,ah

    mov al,c
    mov ah,c
    sub al,ah

    mov al,d
    mov ah,e
    add al,ah

    mov al,f
    mov ah,g
    sub al,ah

    mov ax,4ch
    int 21h
endp main
end main
```





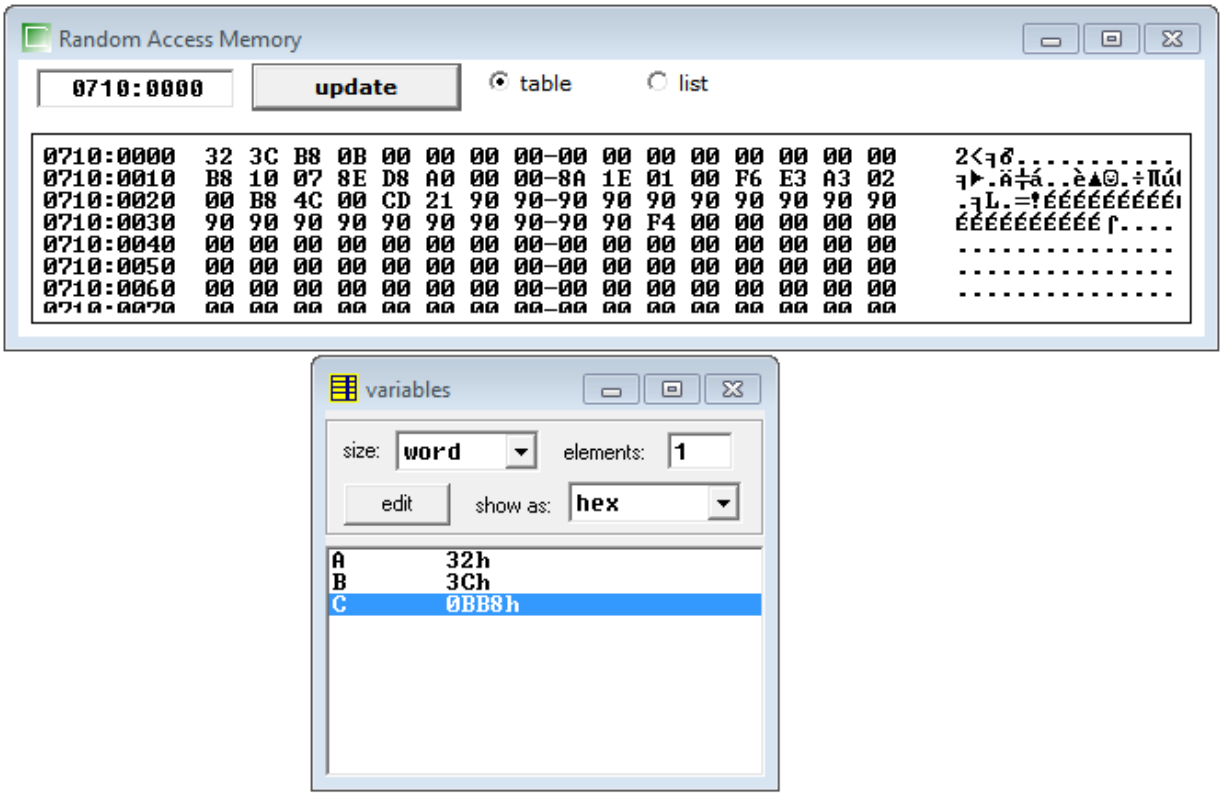




6) Write a program to Mul two 8 bit numbers.

```
.model small

.data

a db 50

b db 60

c dw ?


.code

main proc near
```

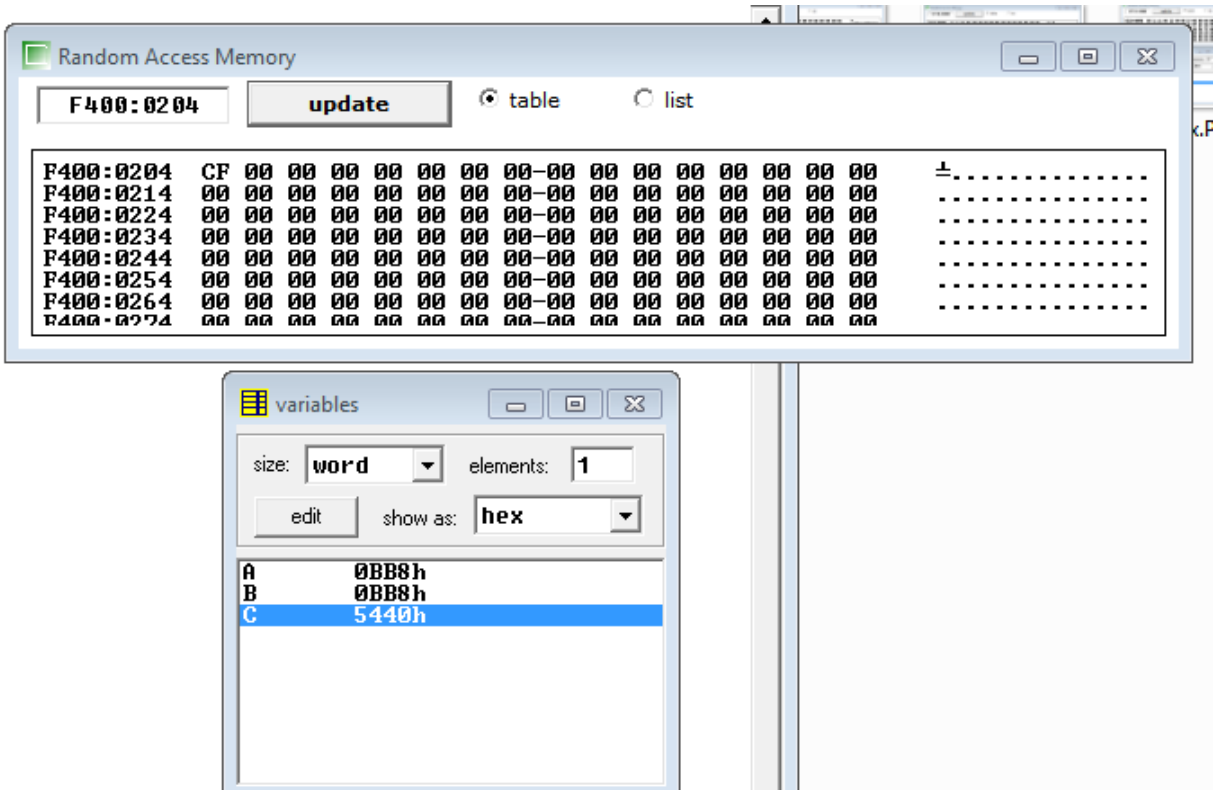
```
    mov ax,@data
    mov ds,ax
    mov al,a
    mov bl,b
    mul bl
    mov c,ax
    mov ax,4ch
    int 21h
endp main
end main
```



7) Write a program to Mul two 16 bit numbers

```
.model small
.data
```

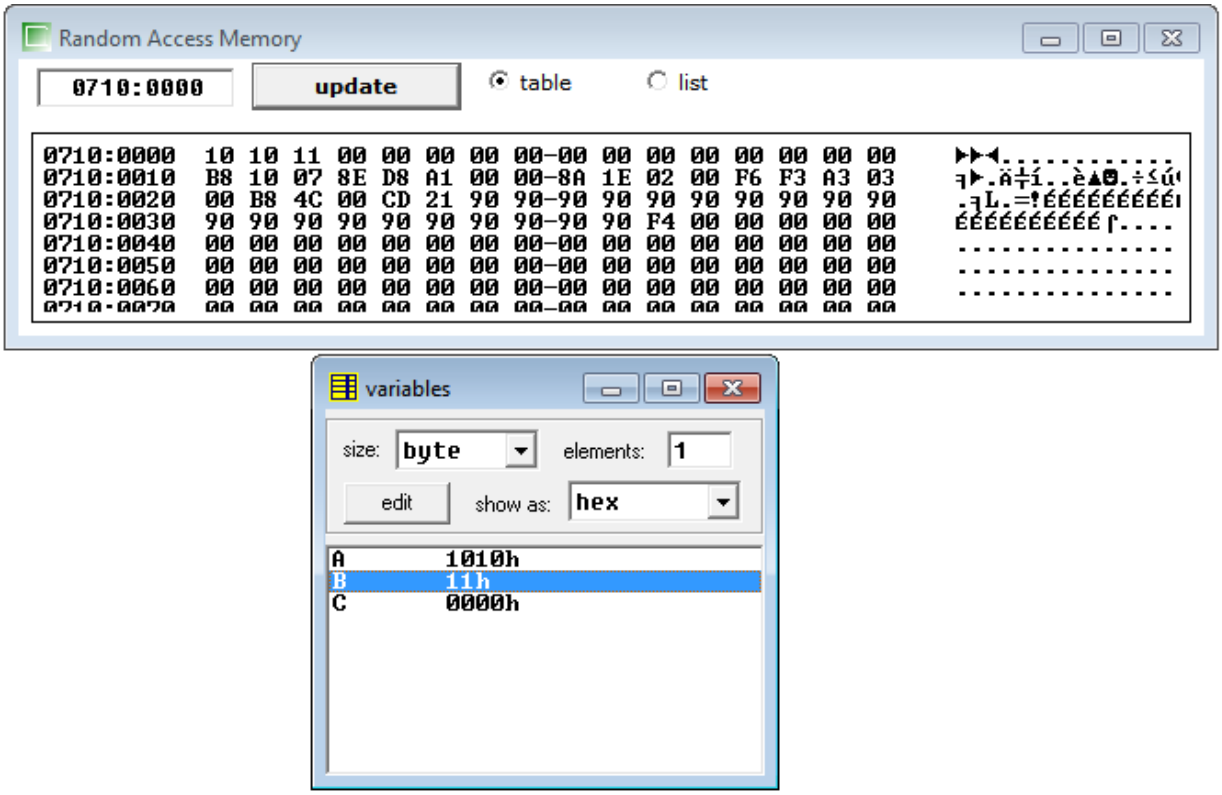
```
a dw 3000
b dw 3000
c dw ?

.code
main proc near
    mov ax,@data
    mov ds,ax
    mov ax,a
    mov bx,b
    mul bx
    mov c,ax
    mov ax,4ch
    int 21h
endp main
end main
```



8) Write a program to divide 16 bit number by 8 bit number.

```
.model small

.data

a dw 1010h

b db 11h

c dw ?


.code

main proc near

    mov ax,@data

    mov ds,ax

    mov ax,a

    mov bl,b

    div bl
```

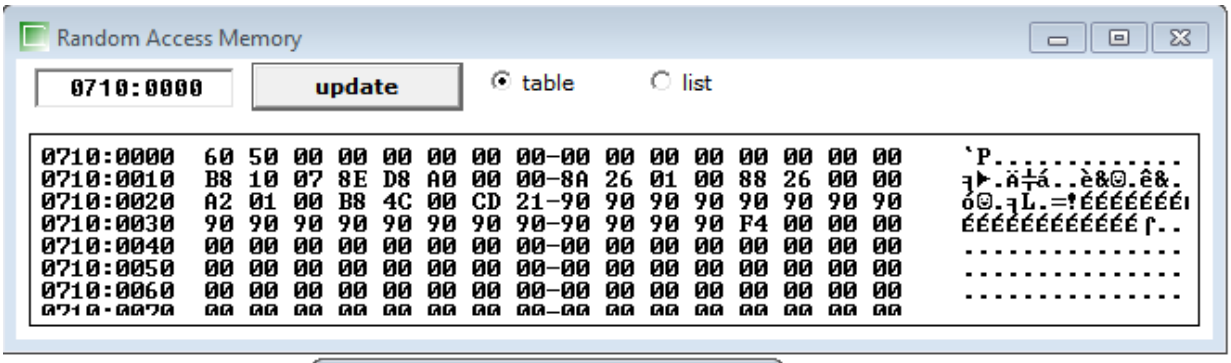
```
    mov c,ax
    mov ax,4ch
    int 21h
endp main
end main
```

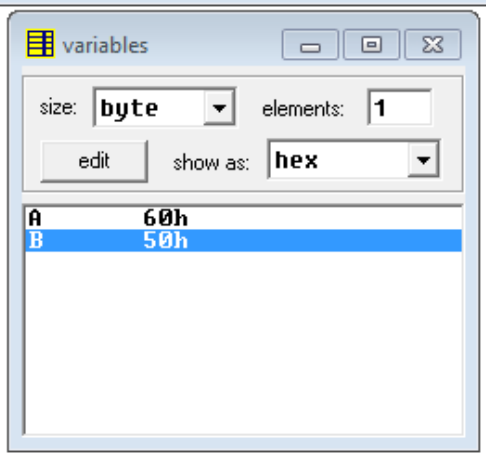


9) Write a program to interchange value of two variables.

```
.model small
.data
a db 50h
b db 60h

.code
main proc near
```

```
    mov ax,@data
    mov ds,ax
    mov al,a
    mov ah,b
    mov a,ah
    mov b,al
    mov ax,4ch
    int 21h
endp main
end main
```





10) Write a programm to find maximum value of array.

```
.model small
```

```
.data
a db 11,33,22,10,44
n db 4
b db 0
max db ?

.code
main proc near
    mov ax,@data
    mov ds,ax
    mov bh,b
    lea si,a
    mov bl,[si]
    flagthree:
        inc si
        mov al,[si]
        cmp bl,al
        ja flagone
        mov bl,al
        flagone:
                mov ah,n
                cmp ah,bh
                je flagtwo
                dec n
                jmp flagthree
```

```
        flagtwo:
        mov max,bl
        mov ax,4ch
        int 21h
endp main
end main
```