Program No.1

**; Write an X86/64 ALP to accept five 64 bit Hexadecimal numbers
from user and store them in an array and display the accepted numbers.**

```
;created by Ratnapal
section .data
    msg1 db 10,13,"Enter 5 64 bit numbers:"
    len1 equ $-msg1
    msg2 db 10,13,"Entered 5 64 bit numbers:"
    len2 equ $-msg2

section .bss
    array resd 200
    counter resb 1

section .text
global _start
_start:

;display
    mov Rax,1
    mov Rdi,1
    mov Rsi,msg1
    mov Rdx,len1

syscall

;accept
mov byte[counter],05
mov rbx,00
loop1:
    mov rax,0 ; 0 for read
    mov rdi,0 ; 0 for keyboard
    mov rsi, array ;move pointer to start of array
    add rsi,rbx
    mov rdx,17
syscall

add rbx,17 ;to move counter
dec byte[counter]
JNZ loop1

;display
    mov Rax,1
    mov Rdi,1
    mov Rsi,msg2
    mov Rdx,len2
syscall

;display
mov byte[counter],05
mov rbx,00
```

```
loop2:
    mov rax,1 ;1 for write
    mov rdi, 1 ;1 for monitor
    mov rsi, array
    add rsi,rbx
    mov rdx,17 ;16 bit +1 for enter
syscall

add rbx,17
dec byte[counter]
JNZ loop2

;exit system call
mov rax ,60
mov rdi,0
syscall
```

Output :