**Title:- Non-Overlapped block data transfer.**

**Assignment Name: - Write X86/64 ALP to perform non-overlapped block transfer without string specific instructions Block containing data can be defined in the data segment.**

section .data

%macro write 2

mov rax,1

mov rdi,1

mov rsi,%1

mov rdx,%2

syscall

%endmacro

m1 db 10,"ALP to perform Non-overlapped Block Data transfer without string related instructions",10

l1 equ $-m1

m2 db 10,"Source Block contents before transfer are : ",10

l2 equ $-m2

m3 db 10,"Destination Block contents after tranfer are : ",10

l3 equ $-m3

srcblk db 10h,20h,30h,40h,50h

;dstblk db 00,00,00,00,00

newline db 10

space db 10," "

spacelen equ $-space

cnt equ 05

section .bss

ans resb 02

dstblk resb 05

section .txt

global \_start:

\_start:

write m1,l1

write space,01

write m2,l2

mov rsi,srcblk

call display

write m3,l3

mov rsi,srcblk

mov rdi,dstblk

mov rcx,05

again:

mov al,[rsi]

mov [rdi],al

inc rsi

inc rdi

loop again

mov rsi,dstblk

call display

exit:

mov rax,60

mov rdi,0

syscall

display:

mov rbp,cnt

back:

mov al,[rsi]

push rsi

call disp\_8

write space,1

pop rsi

inc rsi

dec rbp

jnz back

ret

disp\_8:

mov rdi,ans

mov rcx,02

up1:

rol al,4

mov dl,al

and dl,0fh

add dl,30h

cmp dl,39h

jbe dispskip1

add dl,07h

dispskip1:

mov [rdi],dl

inc rdi

loop up1

write ans,2

          ret

OUTPUT:

(base) admin1@410-7:~/F21111036$ nasm -f elf64 MPL5.asm

(base) admin1@410-7:~/F21111036$ ld -o A MPL5.o

(base) admin1@410-7:~/F21111036$ ./A

ALP to perform Non-overlapped Block Data transfer without string related instructions

Source Block contents before transfer are :

10

20

30

40

50

Destination Block contents after tranfer are :

10

20

30

40

50