

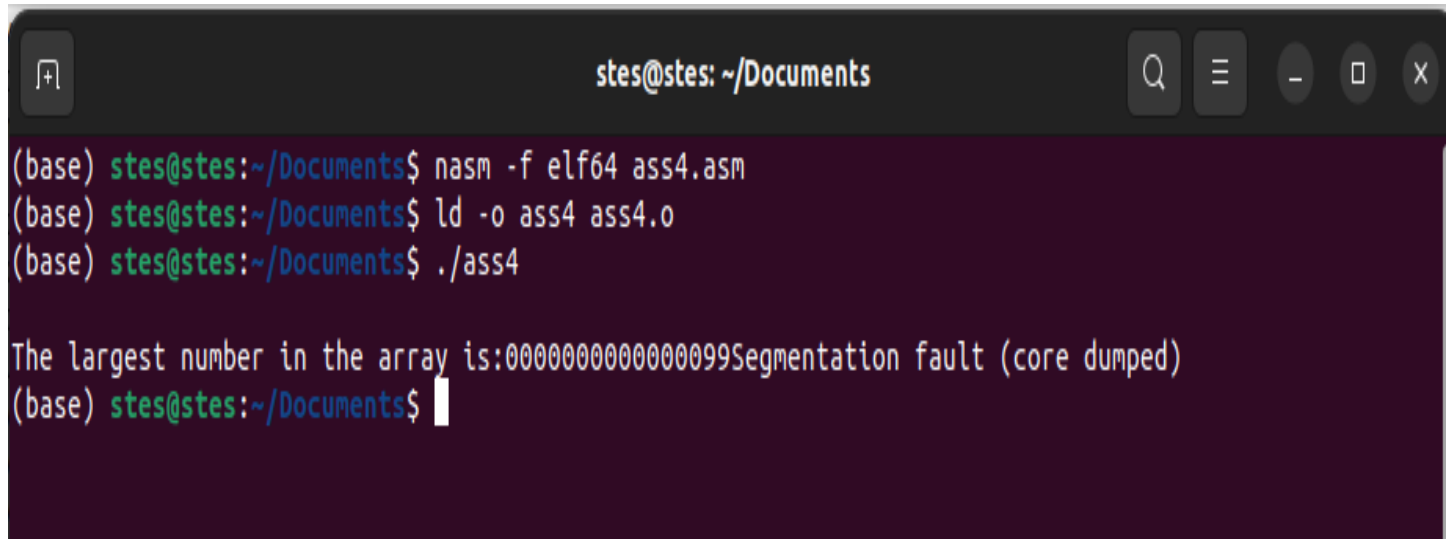
## Assignment No : 4

```
section .data
welmsg db 10, 'The largest number in the array is:',
len1 equ $-welmsg
array dQ 8h, 99h, 77h
arrcnt equ 3
section .bss
dispbuff resb 2
buf resb 16
%macro print 2
mov eax, 4
mov ebx, 1
mov ecx, %1
mov edx, %2
int 0X80
%endmacro
```

```
section .text
global _start
_start:
print welmsg, len1
mov esi, array
mov rax, [esi]
mov ecx, arrcnt
up1:
add esi, 8
mov rbx,[esi]
cmp rax, rbx
jnc skip
mov rax,rbx
mov edi, buf
skip:
loop up1
mov rbx, rax
mov edi, buf
mov ecx, 16
dispup1:
rol rbx, 4
mov dl, bl
and dl, 0fh
add dl, 30h
cmp dl, 39h
jbe dispskip1
add dl, 07h
```

```
dispskip1:
mov[edi],dl
inc edi
loop dispup1
print buf,16
ret
```

**Output :**

A terminal window with a dark background and light-colored text. The window title is 'stes@stes: ~/Documents'. It shows the compilation of an assembly file 'ass4.asm' into an executable 'ass4.o' using 'nasm' and 'ld'. After running './ass4', the program prints 'The largest number in the array is:00000000000000099' followed by a 'Segmentation fault (core dumped)' message. The prompt returns to the shell.

```
(base) stes@stes:~/Documents$ nasm -f elf64 ass4.asm
(base) stes@stes:~/Documents$ ld -o ass4 ass4.o
(base) stes@stes:~/Documents$ ./ass4

The largest number in the array is:00000000000000099Segmentation fault (core dumped)
(base) stes@stes:~/Documents$
```