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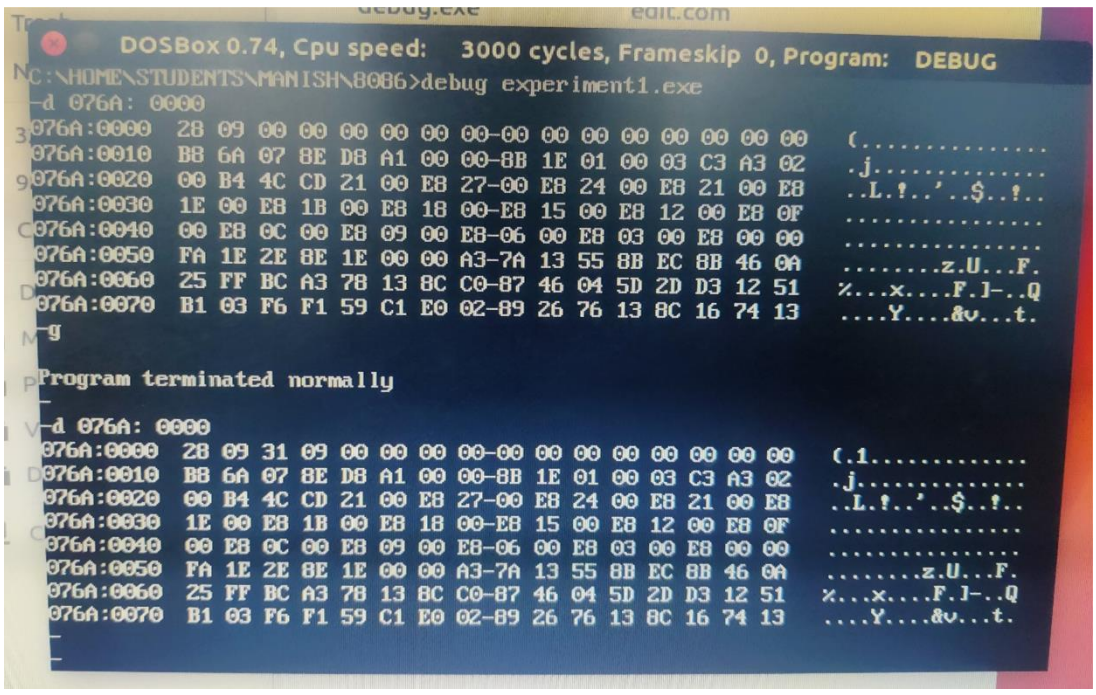
BRANCH :- Comps -B **BATCH:** B.
EXPERIMENT 1: Implement various Arithmetic Operations through Assembly Language Programming for microprocessor 8086(MASM).
SUBJECT :- CAO (COMPUTER ARCHITECTURE AND ORGANIZATION)

TOPIC :- 8-BIT ADDITION
CODE :-

```
Data Segment
n1 db 28h
n2 db 9h
result db 01 dup(?)
data ends

Code Segment
Assume cs:code,ds:data
Start:
mov ax, data
mov ds, ax
mov ax,n1
mov bx,n2
add ax,bx
mov result,ax
mov ah,4ch
int 21h
code ends
end start
```

OUTPUT :-

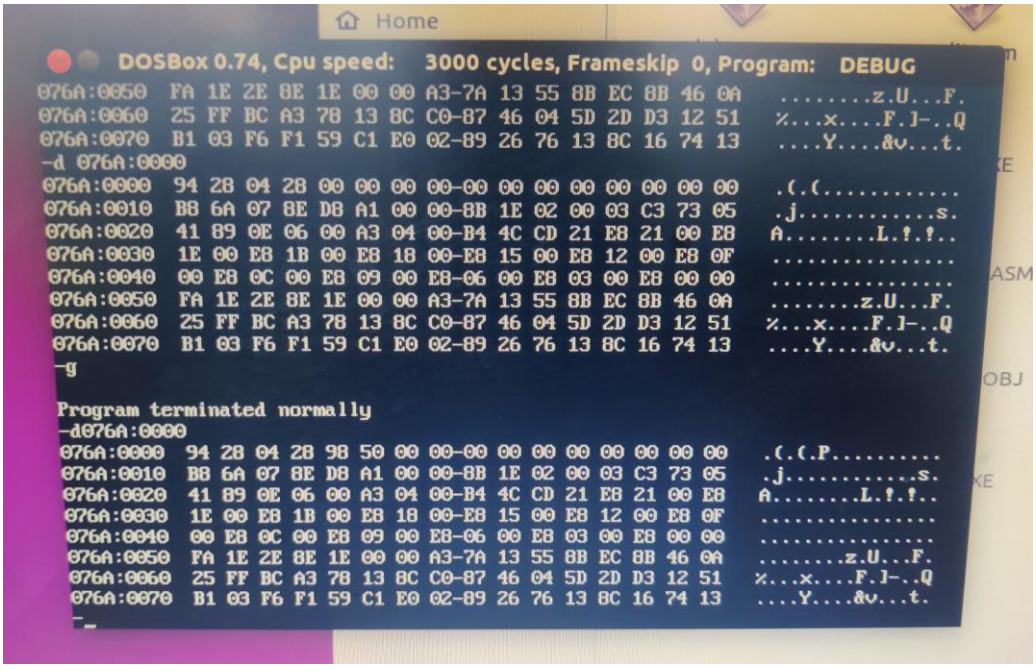


TOPIC :- 16-BIT ADDITION
CODE :-

```
data segment
num1 dw 2894h
num2 dw 2804h
result dw 01 dup(?)
data ends

code segment
assume cs:code,ds:data
start:
mov ax,data
mov ds,ax
mov ax,num1
mov bx,num2
add ax, bx
jnc xyz
inc cx
mov [result+2],cx
xyz: mov result,ax
mov ah,4ch
int 21h
code ends
end start
```

OUTPUT :-



TOPIC :- 8-BIT SUBTRACTION
CODE :-

```
data segment
n1 db 28h
n2 db 9h
result db 01 dup(?)
data ends

code segment
assume cs:code, ds:data
start:
mov ax, data
mov ds,ax
mov ax,n1
mov bx,n2
sub ax,bx
mov result,ax
mov ah,4ch
int 21h
code ends
end start
```

OUTPUT :-