



**বরেন্দ্র বিশ্ববিদ্যালয়**  
VARENDRA UNIVERSITY



## Department of Computer Science and Engineering

**21<sup>st</sup> Batch**

### Lab Report 6

Course title : Microprocessor and Assembly Language  
Course Code : CSE-334

Submitted By	Submitted To
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**Problem Statement:** Write an assembly program that will take three inputs from the user and you will need to check in any of those are non numeric characters, if they are then print “Invalid character” otherwise print “All OK”.

**Theory:** To Print if a input is Numeric or not we will have to take 3 inputs then check their ASCII code if they are greater then 9 or less then 0. By this logic we can Print if all the numbers are numerical or not.

### CODE:

```
.MODEL SMALL
.STACK 100H

.DATA
NL EQU 0AH,0DH
A DB ?
B DB ?
C DB ?
IN_A DB NL,"ENTER FIRST INPUT : $"
IN_B DB NL,"ENTER SECOND INPUT : $"
IN_C DB NL,"ENTER THIRD INPUT : $"
NO DB NL,NL," Invalid character $"
OK DB NL,NL," All OK $"

.CODE
MAIN PROC
    MOV AX,@DATA
    MOV DS,AX

    MOV AH,9      ; FIRST NUMBER INPUT
    LEA DX,IN_A
    INT 21H
    MOV AH,1
    INT 21H
    MOV A,AL
```

```
MOV BL,A

MOV AH,9      ; SECOND NUMBER INPUT
LEA DX,IN_B
INT 21H
MOV AH,1
INT 21H
MOV B,AL
MOV BH,B
```

```
MOV AH,9      ; THIRD NUMBER INPUT
LEA DX,IN_C
INT 21H
MOV AH,1
INT 21H
MOV C,AL
MOV CL,C
```

```
CMP BL,30H    ; CHECK
JL  NONE
CMP BL,39H
JG  NONE
CMP BH,30H
JL  NONE
CMP BH,39H
JG  NONE
CMP CL,30H
JL  NONE
CMP CL,39H
JG  NONE
```

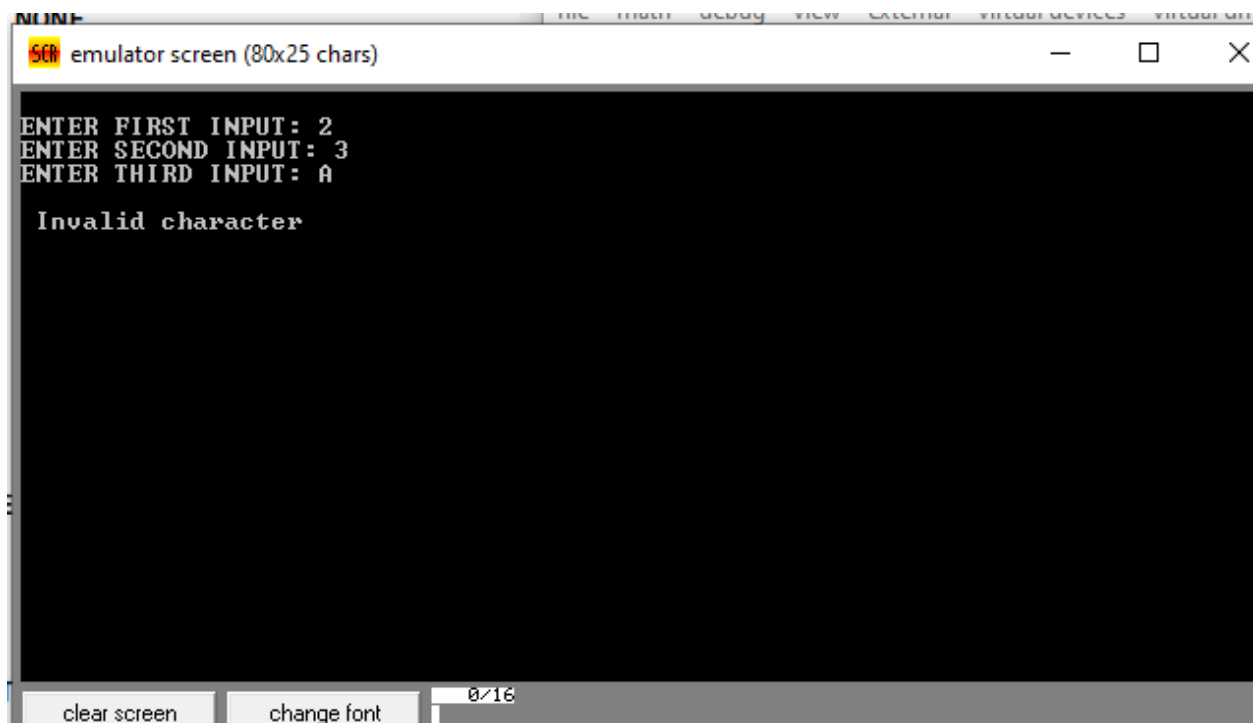
```
MOV AH,9      ;ALL OK
LEA DX,OK
INT 21H
JMP NEXT
```

NONE:

```
MOV AH,9      ;Not OK
LEA DX,NO
INT 21H
```

```
NEXT:
    MOV AH,4CH
    INT 21H
MAIN ENDP
END MAIN
```

## Result:



```
emulator screen (80x25 chars)
ENTER FIRST INPUT: 2
ENTER SECOND INPUT: 3
ENTER THIRD INPUT: A
Invalid character
clear screen change font 0/16
```