

source1 CS:IP (ACTIVE)																
052A:008B	B44C	MOV	AH,4C												AX =	4C00
052A:008D	CD21	INT	21												BX =	0000
052A:008F	000D	ADD	Byte Ptr [DI],CL												CX =	0000
052A:0091	0A454E	OR	AL,Byte Ptr [DI+4E]												DX =	0C30
052A:0094	54	PUSH	SP												SP =	0000
052A:0095	45	INC	BP												BP =	0000
052A:0096	52	PUSH	DX												SI =	0000
052A:0097	20414E	AND	Byte Ptr [BX+DI+4E],AL												DI =	0000
052A:009A	20414C	AND	Byte Ptr [BX+DI+4C],AL												DS =	0533
052A:009D	50	PUSH	AX												ES =	051A
052A:009E	48	DEC	AX												SS =	0529
052A:009F	41	INC	CX												CS =	052A
052A:00A0	4E	DEC	SI												IP =	008F
052A:00A1	55	PUSH	BP												FL =	0206
052A:00A2	4D	DEC	BP												NV UP EI PL	
052A:00A3	45	INC	BP												NZ NA PE NC	
0533:0000	0D 0A 45 4E 54 45 52 20-41 4E 20 41 4C 50 48 41	..ENT										DS:0000				
0533:0010	4E 55 4D 45 52 49 43 20-43 48 41 52 41 43 54 45	NUMER										0D				

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.MODEL SMALL

DISPLAY MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

; MACRO TO DISPLAY A CHARACTER.

DISPCHAR MACRO

MOV AH, 02H

INT 21H

ENDM

.DATA

MSG1 DB 0DH, 0AH, "ENTER AN ALPHANUMERIC CHARACTER :: \$"

MSG2 DB 0DH, 0AH, "NOT AN ALPHANUMERIC CHARACTER...\$"

.CODE

START : MOV AX, @DATA

MOV DS, AX

DISPLAY MSG1

MOV AH, 01H

INT 21H

CALL CHECK

; CHECK FOR ALPHANUMERIC CHARACTER...

JC ERROR

PUSH AX

; SET MODE AND CLEAR THE SCREEN

; ROW = 25 AND COLUMN = 80

MOV AH, 00H

MOV AL, 03H

INT 10H

; MOVE THE CURSOR TO THE MID POINT OF SCREEN

MOV AH, 02H

MOV BH, 00H ; PAGE NUMBER

MOV DH, 12D ; ROW VALUE

MOV DL, 40D ; COLUMN VALUE

INT 10H

POP AX ; RESTORE THE CHARACTER.

AAM

PUSH AX

MOV AL, AH

XOR AH, AH

AAM

MOV AH, 02H


```
AAM
PUSH AX
MOV AL, AH
XOR AH, AH
AAM
ADD AX, 3030H
MOV DL, AH
PUSH AX
DISPCHAR          ; DISPLAY THE ASCII VALUE
POP AX
MOV DL, AL
DISPCHAR
POP AX
ADD AL, 30H
MOV DL, AL
DISPCHAR
; WAIT FOR USER TO PRESS ANY KEY
MOV AH, 07H
INT 21H
; FINISH ...JOB OVER
JMP FINAL
ERROR : DISPLAY MSG2
JMP FINAL
```

; THIS PROCEDURE CHECKS WHETHER THE INPUT IS ALPHANUMERIC OR NOT

CHECK PROC NEAR

```
CMP AL, 30H
JE FRET
JC ERR
CMP AL, 39H
JE FRET
JNC NEXT
JC FRET
```

NEXT : CMP AL, 41H

```
JE FRET
JC ERR
CMP AL, 5AH
JE FRET
JNC NEXT1
JC FRET
```

NEXT1 : CMP AL, 61H

```
JE FRET
JC ERR
CMP AL, 7AH
```


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```
ADD AL, 30H
MOV DL, AL
DISPCHAR
; WAIT FOR USER TO PRESS ANY KEY
MOV AH, 07H
INT 21H
; FINISH ...JOB OVER
JMP FINAL
```

```
ERROR : DISPLAY MSG2
JMP FINAL
```

```
; THIS PROCEDURE CHECKS WHETHER THE INPUT IS ALPHANUMERIC OR NOT
CHECK PROC NEAR
```

```
CMP AL, 30H
JE FRET
JC ERR
CMP AL, 39H
JE FRET
JNC NEXT
JC FRET
```

```
NEXT : CMP AL, 41H
JE FRET
JC ERR
CMP AL, 5AH
JE FRET
JNC NEXT1
JC FRET
```

```
NEXT1 : CMP AL, 61H
JE FRET
JC ERR
CMP AL, 7AH
JE FRET
JNC ERR
JC FRET
```

```
ERR : STC ; SET CARRY FOR ERROR
```

```
RET
```

```
FRET: CLC
```

```
RET
```

```
CHECK ENDP
```

```
; PROCEDURE ENDS HERE
```

```
FINAL : MOV AH, 4CH
INT 21H
```

```
END START
```