



Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

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Q-1. Write a program that will prompt the user to enter a hex digit (0-F), display it on the next line in decimal and ask the user types "Y", the program repeats, if the user types "N" the program terminates. If the user enters an illegal character prompt the user to try again.

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.MODEL SMALL

.STACK 100H

.DATA

PROMPT_1 DB 'TRY AGAIN.\$'

PROMPT_2 DB 'ENTER A HEX DIGIT "0-F":\$'

OUTPUT_PROMPT DB 0AH, 0DH, 'OUTPUT : \$'

ASK_PROMPT DB 0AH, 0DH, 'DO YOU WANT
ANOTHER INPUT: \$'

.CODE

MAIN PROC

MOV AX, @DATA

MOV DS, AX

TOP :

MOV AH, 9

LEA DX, PROMPT_2

INT 21H

MOV AH, 1

INT 21H

MOV BL, AL

~~CMP~~

CMP BL, 30H

JL TRY_MSG2

CMP BL, 46H

JG TRY_MSG2

CMP BL, 39H

JLE DIGIT

MOV AH, 9

LEA DX, OUTPUT_PROMPT

INT 21H

SUB BL, 11H

MOV AH, 2

MOV DL, 31H

INT 21H

MOV DL, BL

INT 21H

AGAIN:

```
MOV AH, 9
LEA DX, ASK - PROMPT
INT 21H

MOV AH, 1
INT 21H

MOV AH, 2
MOV DL, 0AH
INT 21H

MOV DL, 0DH
INT 21H

CMP BH, 'Y'
JE TOP

COMP COMP BH, 'Y'
JE TOP
JMP END_
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DIGIT:

```
MOV AH, 9
LEA DX, OUTPUT - PRMPT
INT 21H

MOV AH, 2
MOV DL, B2
INT 21H
JMP AGAIN
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TRY_MGR:

MOV AH, 9

LEA DX, PROMPT_1

INT 21H

JMP TOP

END_:

MOV AH, 4CH

INT 21H

MAIN ENDP

END MAIN

— 0 —

Q.2. Write a program to read two capital letters and display them on the next line in Alphabetical order.

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· MODEL SMALL

· STACK 100H

· DATA

PROMT_1 DB 'ENTER THE FIRST CAPITAL
LETTER : ' '\$'

PROMT_2 DB 'ENTER THE SECOND CAPITAL
LETTER : ' '\$'

PROMT_3 DB 'THE GIVEN LETTRS IN
ALPHABETICAL ORDER ARE
: ' '\$'

NEXT_LINE DB 0DH, 0AH, " '\$"

· CODE

MAIN PROC

MOV AX, @DATA

MOV DS, AX

MOV AH, 2

INT 21H

MOV AH, 9

LEA DX, NEXT_LINE

INT 21H

LEA DX, PROMT_1

INT 21H

MOV AH, 1

INT 21H

MOV BL, AL

MOV AH, 9

LEA DX, NEXT_LINE

INT 21H

LEA DX, PROMT_2

INT 21H

MOV AH, 1

INT 21H

MOV BH, AL

MOV AH, 9

LEA DX, NEXT_LINE

INT 21H

LEA DX, PROMT-B

INT 21H

MOV AH, 2

CMP BL, AH

JAE @ GREATER

MOV DL, BL

~~INT~~ 21H

MOV DL, BH

INT 21H

JMP @END

@ GREATER:

MOV DL, BH

INT 21H

MOV DL, BL

INT 21H

@END:

MOV AH, 4CH

INT 21H

MAIN ENDP

END MAIN