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1BM19CS187 '3D' Batch 2

LAB -10

Date: 17/11/2020

; Program :: Read the current time from the system and display it in the standard format on the screen

.MODEL SMALL

DISPLAY MACRO MSG

LEA DX, MSG

MOV AH, 09H

INT 21H

ENDM

.DATA

TIMESTR DB 020H DUP(?)

MSG1 DB "CURRENT TIME : :\$"

.CODE

START : MOV AX, @DATA

MOV DS, AX

; CLEAR THE SCREEN

MOV AH, 00H

MOV AL, 03H

INT 10H

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SET A PARTICULAR LOCATION. FOR DYNAMIC CLOCK

AG: MOV BH, 00H
MOV DH, 01H
MOV DL, 01H
MOV AH, 02H
INT 10H

MOV SI, OFFSET TIMESTR ; LEAST, TIMESTR
MOV AH, 2CH ; INTERRUPT for getting system time
INT 21H
MOV AL, CH ; CH = HOUR, CL = MINUTES,
DH = SECOND

AAM ; Convert to unpacked BCD format -- AAM is used and CH contains 10
AAD AX, 3030H ; AX = 31 30 → AH = 31H and AL = 30H
MOV [SI], AH ; Timestr[00] = 31 → will be displayed as 1
INC SI
MOV [SI], AL ; Timestr[01] = 30 → will be displayed as 0
INC SI
MOV [SI], BYTE PTR ':' ; Displayed on the screen now is 10:
INC SI

MOV AL, CL
AAM
ADD AX, 3030H
MOV [SI], AH
INC SI

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MOV [SI], AL

INC SI

MOV [SI], BYTE PTR ':'

INC SI

MOV AL, DH

AAM

ADD AX, 3030H

MOV [SI], AH

INC SI

MOV [SI], AL

INC SI

MOV [SI], BYTE PTR '\$'

DISPLAY MSG1

DISPLAY TIMESTR

; Check for the keyboard status

; If key is pressed, terminate the
program

MOV AH, 0BH

INT 21H

CMP AL, 00H

JE AG

FINAL : MOV AH, 4CH

INT 21H

END START