LAB PROGRAM - 7

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

; SET A PARTICULAR LOCATION FOR DYNAMIC
                         CLOCK
```

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

      MOV   SI, OFFSET TIMESTR ;   LEA SI, TIMESTR
      MOV   AH, 2CH           ;  INTERRUPT FOR
                                GETTING SYSTEM TIME
          INT   21H
          MOV   AL, CH        ;  CH = HOUR, CL = MINUTES,
                                      DH = SECOND
  AAM    ;  CONVERT TO UNPACKED BACK FORMAT
          ;  - AAM IS USED AND CH CONTAINS
              THE VALUE 10
  ADD   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
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 '$'  ; TO INDICATE
              END OF THE TIME STRING

DISPLAY MSG)
DISPLAY TIMESTR       ; DISPLAY THE TIME....
; CHECK FOR THE KEYBOARD STATUS ....
; IF KEY ISIPRESSED, TERMINATE THE
                      PROGRAM ..
```

```
        MOV AH, OBH
        INT 21H
        CMP AL, 00H
        JE AG
FINAL : MOV AH, 4CH
              INT 21H
        END START
```