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LAB program

IBMPC/CS168
Swellha, Patil
3rd sem 'D' section
Swellha

Program to display current time of system

• model small

```
display macro msg  
    lea dx, msg  
    mov ah, 09h  
    int 21h  
endm
```

• data

```
timestr db 020h dup(?)  
msg 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

```
ag : mov bh, 00h  
     mov dh, 01h  
     mov dl, 01h  
     mov ah, 02h  
     int 10h
```

mov si, offset timestr ; (OR) lea si, timestr
mov ah, 2ch ; interrupt for getting system time
int 2ch

mov al, ch ; ch = hour, cl = minutes, dh = second
aam ; convert to unpacked bcd format
and ch contains 10

add ax, 3030h ; ax = 31 30 → ah = 31h & al = 30h
mov [si], ah ; timestr[0] = 31 → will be displayed
inc si as 1

mov [si], al ; timestr[1] = 30 → will be displayed
inc si as 0

mov [si], byte ptr ':' ; display now on the
~~inc si~~ screen is 10:

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, ah

aam

add ax, 3030h

mov [si], ah

inc si

mov [si], al

inc si

mov [si], byte ptr '\$' ; to indicate end
of string

display msg;

display tmstr

; check for the keyboard status

; if key is pressed; & terminate the program

mov ah, 0bh

int ~~21h~~ 21h

cmp al, 00h

je ag

final: mov ah, 4ch

int 21h

end start