

Date: 03-03-2022 Exp.7

INT 10 Blinking

**VIT**[®]
Vellore Institute of Technol
(Deemed to be University under section 3 of UGC Act)**Aim:**

To display the string in blinking manner by using INT10.

Tool Used:

Assembler - MASM 611

Algorithm:

1. String arr is declared
2. Go on taking inputs from the keyboard
3. Compare it with letter 'z', if it is not same then add it in the string. If it is same then print the string in blinking manner.
4. End the process.

Program:

```
data segment

arr db 0ah dup(0)

data ends


code segment

assume cs:code, ds:data


start:

mov ax, data

mov ds, ax

xor ax, ax
```

```
mov cx, 0000h
```

```
lea si, arr
```

```
loop1:
```

```
mov ah, 01h
```

```
int 21h
```

```
mov [si], al
```

```
inc cx
```

```
cmp [si], 'z'
```

```
je success
```

```
inc si
```

```
jmp loop1
```

```
success:
```

```
loop2:
```

```
mov ah, 02h
```

```
mov bh, 00h
```

```
mov dh, 15h
```

```
mov dl, 35h
```

```
int 10h
```

```
mov ah, 09h
```

```
mov al, arr[si]
```

```
dec si
```

mov bl, 8bh

int 10h

loop loop2

hlt

code ends

end start

Sample Input:

harshz

Sample Output:

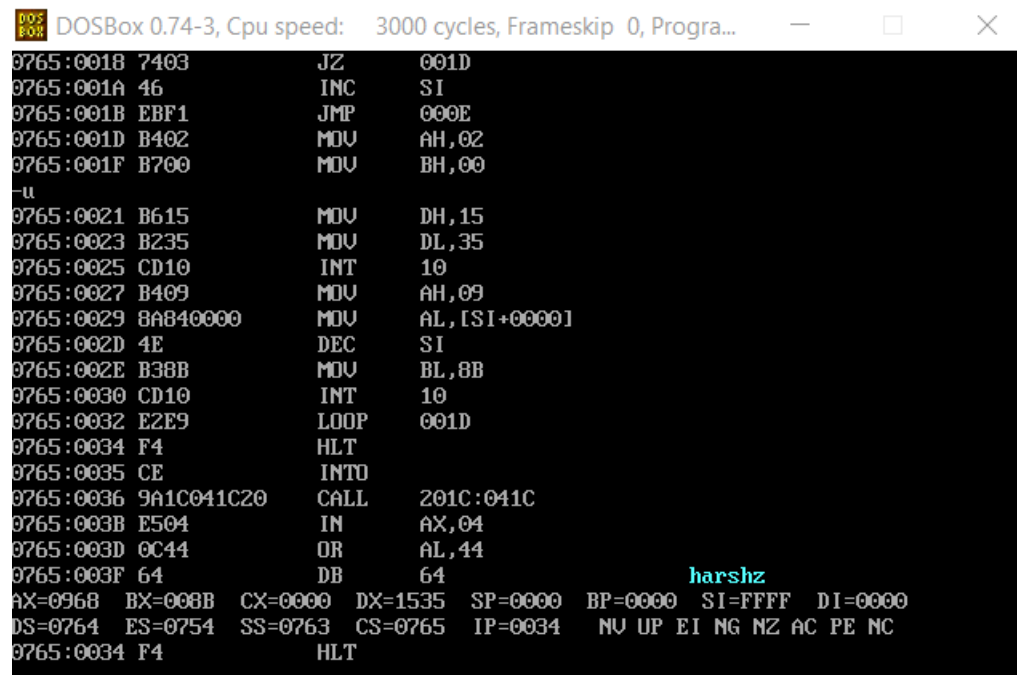
harshz

Manual Verification:

When z is typed it prints the string.

Register/ Memory Contents for I/O:

```
C:\BIN>debug lab7.exe
-u
0765:0000 B86407      MOV     AX,0764
0765:0003 8ED8        MOV     DS,AX
0765:0005 33C0        XOR     AX,AX
0765:0007 B90000        MOV     CX,0000
0765:000A 8D360000       LEA     SI,[0000]
0765:000E B401        MOV     AH,01
0765:0010 CD21        INT     21
0765:0012 8804        MOV     [SI],AL
0765:0014 41          INC     CX
0765:0015 833C7A       CMP     WORD PTR [SI],+7A
0765:0018 7403        JZ      001D
0765:001A 46          INC     SI
0765:001B EBF1        JMP     000E
0765:001D B402        MOV     AH,02
0765:001F B700        MOV     BH,00
_
```

Snapshot of the Output:


DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Progra...

```

0765:0018 7403      JZ      001D
0765:001A 46          INC     SI
0765:001B EBF1      JMP     000E
0765:001D B402      MOV     AH,02
0765:001F B700      MOV     BH,00
-ll
0765:0021 B615      MOV     DH,15
0765:0023 B235      MOV     DL,35
0765:0025 CD10      INT     10
0765:0027 B409      MOV     AH,09
0765:0029 8A840000 MOV     AL,[SI+0000]
0765:002D 4E          DEC     SI
0765:002E B38B      MOV     BL,8B
0765:0030 CD10      INT     10
0765:0032 E2E9      LOOP   001D
0765:0034 F4          HLT
0765:0035 CE          INT0
0765:0036 9A1C041C20 CALL    201C:041C
0765:003B E504      IN      AX,04
0765:003D 0C44      OR      AL,44
0765:003F 64          DB      64
AX=0968 BX=008B CX=0000 DX=1535 SP=0000 BP=0000 SI=FFFF DI=0000
DS=0764 ES=0754 SS=0763 CS=0765 IP=0034 NU UP EI NG NZ AC PE NC
0765:0034 F4          HLT

```

harshz

Result:

Hence INT10_is used to print the string in blinking and colour manner.