

Date: 03-03-2022 Exp.7

INT 10 Blinking

**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:**

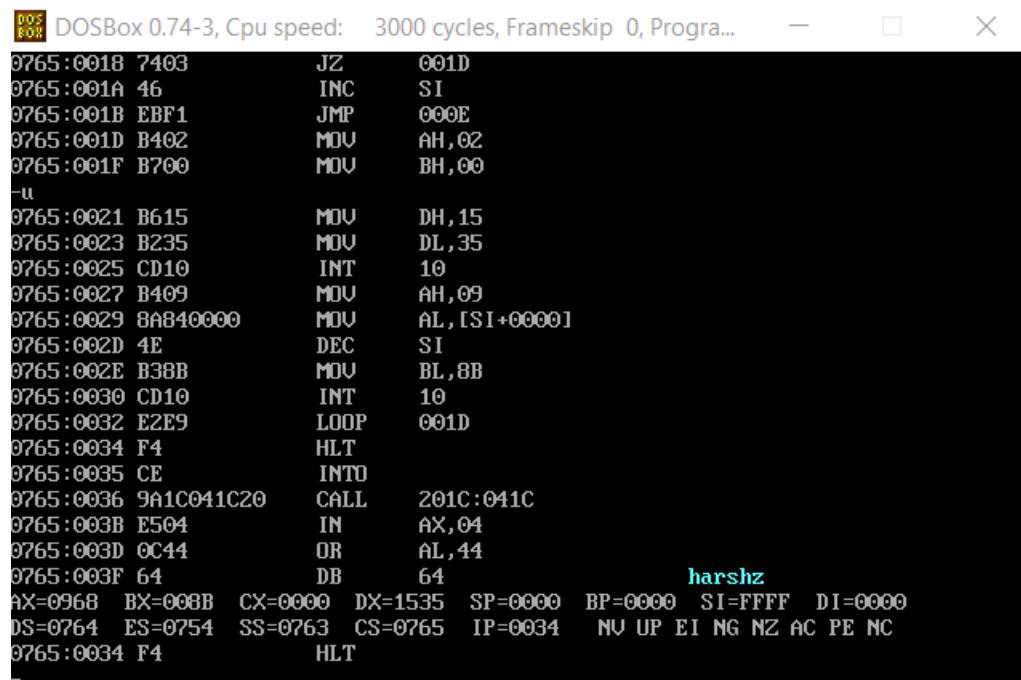
harshz

**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, Program: - X

```
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
-u
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      INTO 
0765:0036 9A1C041C20 CALL  201C:041C
0765:003B E504      IN    AX,04
0765:003D 0C44      OR    AL,44
0765:003F 64      DB    64
                                     harshz
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 NV UP EI NG NZ AC PE NC
0765:0034 F4      HLT
```

**Result:**

Hence INT10 is used to print the string in blinking and colour manner.