

Exp 2: - Experiment on displaying contents of 16 bit flag register of 8086

```
data segment
msg db 0dh, 0ah, "- - - of df if tf sf zf- af-pf - cf $"
newline db 0dh, 0ah, "$"
flag dw ?
data ends
```

```
code segment
assume cs: code, ds: data
start:
mov ax, data
mov ds, ax
```

```
mov dx, offset msg
mov ah, 09h
int 21h
```

```
mov dx, offset newline
mov ah, 09h
int 21h
```

```
pushf
pop bx
mov flag, bx
```

```
mov cx, 16
mov bx, 8000h
```

```
up:
mov ax, flag
and ax, bx
jz zero
mov dl, 31h
jmp print
zero: mov dl, 30h
print: mov ah, 02h
      int 21h
mov dl, "
mov ah, 02h
int 21h
```

```
ror bx, 1
loop up
```

```
mov ah, 4ch
int 21h
```

code ends
end start

Output:-

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX -
C:\TASM\BIN>clsrc
Illegal command: clsrc.

C:\TASM\BIN>clscr
Illegal command: clscr.

C:\TASM\BIN>tasm shreyans.asm
Turbo Assembler Version 4.1 Copyright (c) 1988, 1996 Borland International

Assembling file: shreyans.asm
Error messages: None
Warning messages: None
Passes: 1
Remaining memory: 467k

C:\TASM\BIN>tlink shreyans.obj
Turbo Link Version 7.1.30.1. Copyright (c) 1987, 1996 Borland International
Warning: No stack

C:\TASM\BIN>shreyans.exe

- - - - OF DF IF TF SF ZF - AF - PF - CF
0 1 1 1 0 1 0 0 0 0 0 0 0 0 1 1
C:\TASM\BIN>_
```

```
C:\>tasm shreyans.asm
Turbo Assembler Version 2.51 Copyright (c) 1988, 1991 Borland International

Assembling file: shreyans.asm
Error messages: None
Warning messages: None
Passes: 1
Remaining memory: 491k

C:\>tlink shreyans.obj
Turbo Link Version 4.0 Copyright (c) 1991 Borland International
Warning: No stack

C:\>shreyans.exe

- - - - of df if tf sf zf - af - pf - cf
0 1 1 1 0 0 1 0 0 0 0 0 0 0 1 0
C:\>_
```
