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

read macro
    mov ah,01h
    int 21h
endm

data segment
    res dw 0
    msg1 db 0ah,0dh,"1.Binary to Decimal 2.Hexadecimal to Decimal 3.exit$"
    msg2 db 0ah,0dh,"Enter your choice $"
    str1 db 0ah,0dh,"Enter the 8 bit binary no: $"
    str2 db 0ah,0dh,"Decimal representation is $"
    get db 0ah,0dh,"Enter the hexadecimal no: $"
data ends

code segment
assume cs:code,ds:data
start: mov ax,data
mov ds,ax
loo:
    display msg1
    display msg2
    mov ah,01h
    int 21h
    cmp al,31h
    jnz l
    mov cx,8h
    display str1
    mov bx,0h
l1: mov ax,0h
    mov ah,01h
    int 21h
    sub ax,30h
    mov ah,0h
    or bx,ax
    shl bx,1
    loop l1
    shr bx,1
    mov ax,00h
    display str2
    mov ax,bx
    call prints
prints proc
    mov cx,00h
    mov dx,00h
    mov bl,0ah
    l4:
        div bl
        mov dx,ax
        mov dl,00h
        push dx
        inc cx
        mov ah,00h
        cmp al,00h
        jnz l4
```

```asm
    l5:
        pop dx
        mov dl,dh
        mov dh,00h
        add dx,30h
        mov ah,02h
        int 21h
        loop l5
        mov dx,00h
prints endp
    jmp loo
    l: cmp al,32h
    jnz exit2
    mov bx,0
    display get
l3: read
    mov ah,00h
    cmp ax,0dh
    jz done
    cmp ax,39h
    jg alpha
    sub ax,30h
    jmp makenum
alpha:
    sub ax,57h
makenum:
    shl bx,1
    shl bx,1
    shl bx,1
    shl bx,1
    or bx,ax
    jmp l3
done:
    mov res,bx
    call dispnum
dispnum proc
    display str2
    mov cx,00h
    mov ax,res
    mov bx,0ah
    l7: mov dx,00h
        div bx
        push dx
        inc cx
        cmp ax,00h
        jnz l7
    l8: pop dx
        add dx,30h
        mov ah,02h
        int 21h
        loop l8
        jmp loo
dispnum endp
exit2: mov ah,4ch
    int 21h
code ends
end start
```

Output

1.Binary to Decimal 2.Hexadecimal to Decimal 3.Exit
Enter your choice 1
Enter the 8 bit binary no:00001011
Decimal representation is 11
1.Binary to Decimal 2.Hexadecimal to Decimal 3.Exit
Enter your choice 2
Enter the hexadecimal no:a2
Decimal representation is 162
1.Binary to Decimal 2.Hexadecimal to Decimal 3.Exit
Enter your choice 3