.MODEL SMALL

.386

.STACK 100H

.DATA

NUM DW 0

MSG1 DB 10,13,'Enter 16-bit binary number : $'

MSG2 DB 10,13,'The Number in ASCII is : $'

.CODE

.STARTUP

;BINARY INPUT

MOV DX,OFFSET MSG1

MOV AH,09

INT 21H

MOV DL,10

MOV AH,02

INT 21H

MOV BX,0

MOV CX,16

L1 :

SHL BX,1

MOV AH,01

INT 21H

CMP AL,'0'

JE NXT

ADD BX,1

NXT :

LOOP L1

MOV NUM,BX

MOV DL,10

MOV AH,02

INT 21H

;STORING NUMBER

MOV AX,NUM

MOV CX,4

L2 :

MOV BX,10

MOV DX,0

DIV BX

OR DX,30H

PUSH DX

LOOP L2

;PRINTING NUMBER

MOV DX,OFFSET MSG2

MOV AH,09

INT 21H

MOV DL,10

MOV AH,02

INT 21H

MOV CX,4

L3 :

POP BX

MOV DL,BL

MOV AH,02

INT 21H

LOOP L3

.EXIT

END