Count total zeros and ones in a binary number

ALGORITHM:

STEP 1: Start the program

STEP 2: Print enter any number and using scanf %d and num

STEP 3: And using for loop and if condition

STEP 4: And using condition num>>=1

STEP 5: Finally return 0

COMMANDS:

printf("Enter any number: ");

scanf("%d", &num); //Input number from user

if(num & 1)

ones++; //If LSB is set then increment ones otherwise zeros

num >>= 1; //Right shift bits of num to one position

PROGRAM:

#include <stdio.h>

#define INT\_SIZE sizeof(int) \* 8

int main()

{

int num, zeros, ones, i;

printf("Enter any number: ");

scanf("%d", &num);

zeros = 0;

ones = 0;

for(i=0; i<INT\_SIZE; i++)

{

if(num & 1)

ones++;

else

zeros++;

num >>= 1;

}

printf("Total zero bit is %d\n", zeros);

printf("Total one bit is %d", ones);

return 0;

}

OUTPUT:

Enter any number: 28

Total zero bit is 29

Total one bit is 3