

## EXP NO: 25 DECIMAL TO BINARY CONVERSION

**AIM:** To write a C program to implement decimal to binary conversion.

### ALGORITHM:

- 1) Check if your number is odd or even.
- 2) If it's even, write 0 (proceeding backwards, adding binary digits to the left of the result).
- 3) Otherwise, if it's odd, write 1 (in the same way).
- 4) Divide your number by 2 (dropping any fraction) and go back to step 1. Repeat until your original number is 0.

### PROGRAM:

```
#include<stdio.h>
#include<stdlib.h>
int
main()
{
    int
    a[10],n,i;
    printf("Enter the number to convert: ");
    scanf("%d",&n);
    for(i=0;n>0;i++)
    {
        a[i]=n%2;
        n=n/2;
    }

    printf("\nBinary of Given Number is=");
    for(i=i-1;i>=0;i--)
    {
        printf("%d",a[i]);
    }
    return
    0;
}
```

### INPUT & OUTPUT:

```
Enter the number to convert: 143  
Binary of Given Number is=10001111  
-----  
Process exited after 3.201 seconds with return value 0  
Press any key to continue . . .
```

**RESULT:** Thus the program was executed successfully using DevC++.