

## DECIMAL TO OCTAL CONVERSION

**EXP NO: 27**

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

### ALGORITHM:

- 1) Store  
the remainder when the number is divided by 8 in an array.
- 2) Divide  
the number by 8 now
- 3) Repeat  
the above two steps until the number is not equal to 0.
- 4) Print  
the array in reverse order now.

### PROGRAM:

```
#include  
<stdio.h>
```

```
int  
main()
```

```

{

    long decimal, remainder, quotient, octal=0;

    int octalnum[100], i = 1, j;

    printf("Enter the decimal number:
");

    scanf("%ld", &decimal);

    quotient = decimal;

    while (quotient != 0)

    {

        octalnum[i++] = quotient % 8;

        quotient = quotient / 8;

    }

    for (j = i - 1; j > 0; j--)

        octal = octal*10 + octalnum[j];

    printf("Equivalent octal value of
decimal no %d is: %d ",
decimal, octalnum);

    return 0;
}

```

}

**INPUT:**

Enter the decimal number:3

Equivalent octal value of decimal no 3 is: 273529280

**OUTPUT:**

Enter the decimal number:3

Equivalent octal value of decimal no 3 is: 273529280

**RESULT:** Thus

the program was executed successfully using DevC++.