DECIMAL TO OCTAL CONVERSION

EXP NO: 29

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:

```c
#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 ofdecimal no %d is: %d  ", decimal,octalnum);
return 0;
}
```

INPUT & OUTPUT:

```
Enter the decimal number: 124
Equivalent octal value ofdecimal no 124 is: 6683760
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Process exited after 12.43 seconds with return value 0
Press any key to continue . . .
```

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