```c
1  #include <stdio.h>
2
3  int main(void)
4  {
5      //function prototypes
6      void PrintBinaryFormOfNumber(unsigned int);
7
8      //variable declarations
9      unsigned int a;
10     unsigned int result;
11
12     //code
13     printf("\n\n");
14     printf("Enter An Integer = ");
15     scanf("%u", &a);
16
17     printf("\n\n\n\n");
18     result = ~a;
19     printf("Bitwise COMPLEMENTING Of \nA = %d (Decimal) gives result %d (Decimal).
            \n\n", a, result);
20     PrintBinaryFormOfNumber(a);
21     PrintBinaryFormOfNumber(result);
22
23     return(0);
24 }
25
26
27 // ****** BEGINNERS TO C PROGRAMMING LANGUAGE : PLEASE IGNORE THE CODE OF THE
       FOLLOWING FUNCTION SNIPPET 'PrintBinaryFormOfNumber()' ******
28 // ****** YOU MAY COME BACK TO THIS CODE AND WILL UNDERSTAND IT MUCH BETTER AFTER
       YOU HAVE COVERED : ARRAYS, LOOPS AND FUNCTIONS ******
29 // ****** THE ONLY OBJECTIVE OF WRITING THIS FUNCTION WAS TO OBTAIN THE BINARY
       REPRESENTATION OF DECIMAL INTEGERS SO THAT BIT-WISE AND-ing, OR-ing, COMPLEMENT
       AND BIT-SHIFTING COULD BE UNDERSTOOD WITH GREAT EASE ******
30
31 void PrintBinaryFormOfNumber(unsigned int decimal_number)
32 {
33     //variable declarations
34     unsigned int quotient, remainder;
35     unsigned int num;
36     unsigned int binary_array[8];
37     int i;
38
39     //code
40     for (i = 0; i < 8; i++)
41         binary_array[i] = 0;
42
43     printf("The Binary Form Of The Decimal Integer %d Is\t=\t", decimal_number);
44     num = decimal_number;
45     i = 7;
46     while (num != 0)
47     {
```

```
48          quotient = num / 2;
49          remainder = num % 2;
50          binary_array[i] = remainder;
51          num = quotient;
52          i--;
53      }
54
55      for (i = 0; i < 8; i++)
56          printf("%u", binary_array[i]);
57
58      printf("\n\n");
59  }
60
61
```