How to Program an Odd-or-Even-Number Calculator in C

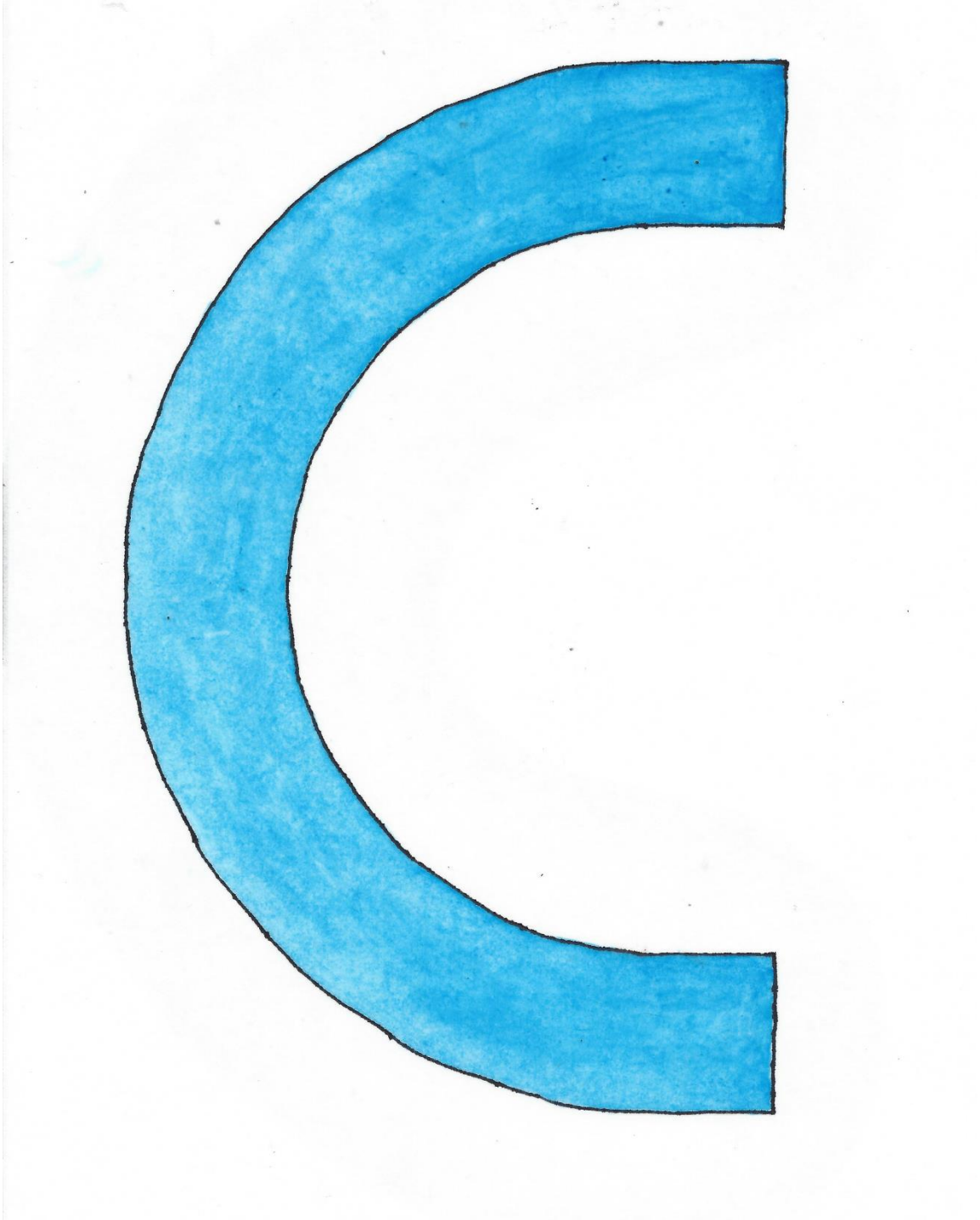

Figure 1: The C logo.

Statement of Computational Problem:

Is it possible to write a program that takes an integer value inputted by the user and then to get that program to output whether that integer value be odd or even?

Solution:

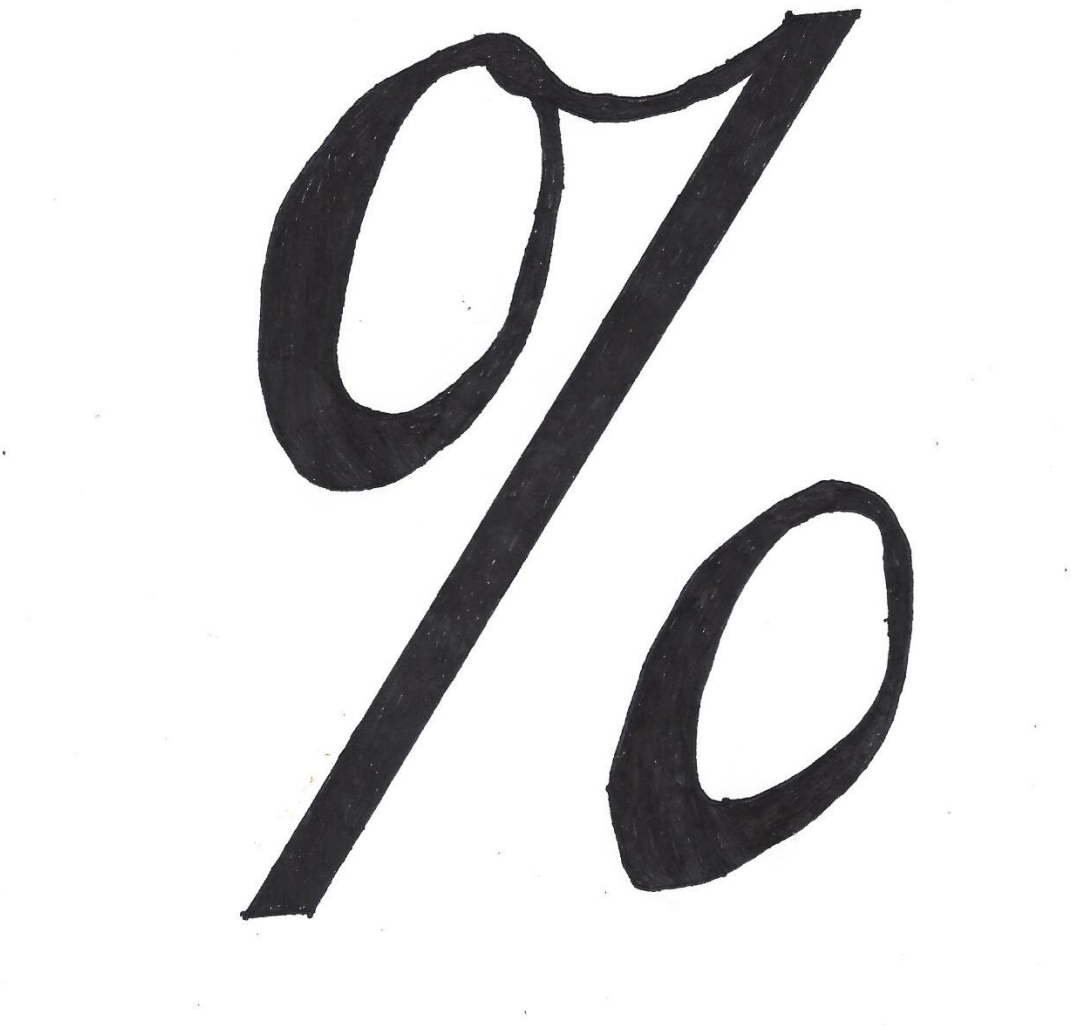

Figure 2: The modulus operator. The modulus operator is a binary operator that takes 2 operands.

We can use the modulus operator so as to solve the above-stated computational problem. The modulus operator divides the dividend by the divisor and returns the remainder.

In our C program, we take the integer value inputted by the user, and divide it by 2 using the modulus operator.

Should the integer value inputted by the user cause the modulus operation to return a remainder of 0, then, logically, that integer value would be even, and the program will output that information.

Should the integer value inputted by the user cause the modulus operation to return a remainder of 1, then, logically, that integer value would be odd, and the program will output that information.

modulus_even_number.c | Start here

```c
#include <stdio.h>
int main()
{
    int n;
    printf("Enter the number:");
    scanf("%d", &n);

    if (n % 2 == 0 )
        printf("The number, %d, is even", n);
    else
        printf("The number, %d, is odd", n);

    return 0;

}
```

Figure 3: The C code that is necessary so as to create, when compiled, an odd-or-even-number calculator.

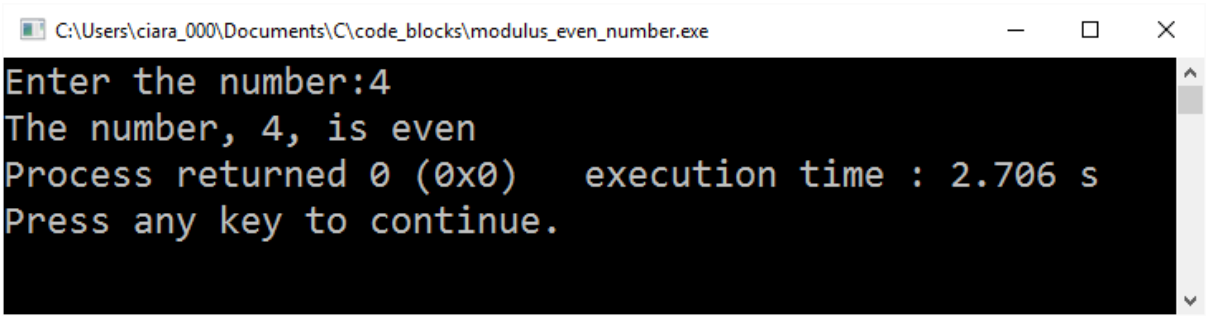

Figure 4: What the code, depicted in **Figure 3,** outputs should the integer value inputted by the user be even. In this instance, the user has inputted the integer value, 4, which is even. The compiled C program recognises that the integer value, 4, is even, and outputs this information.

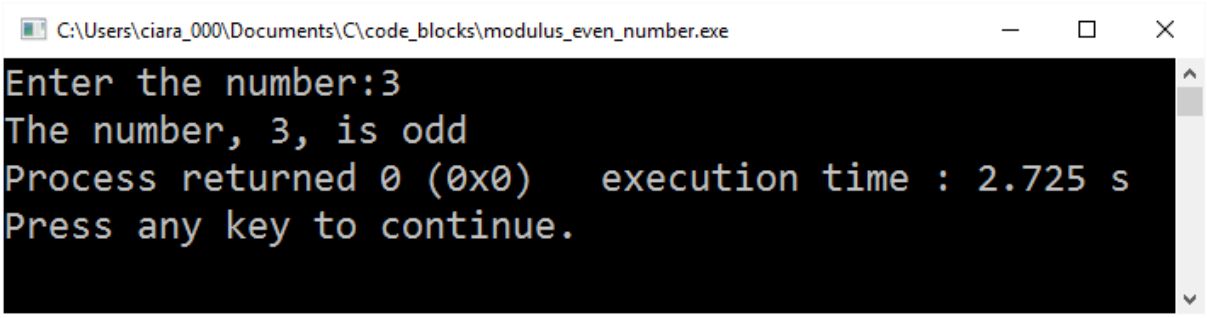

Figure 5: What the code, depicted in **Figure 3,** outputs should the integer value inputted by the user be odd. In this instance, the user has inputted the integer value, 3, which is odd. The compiled C program recognises that the integer value, 3, is odd, and outputs this information.