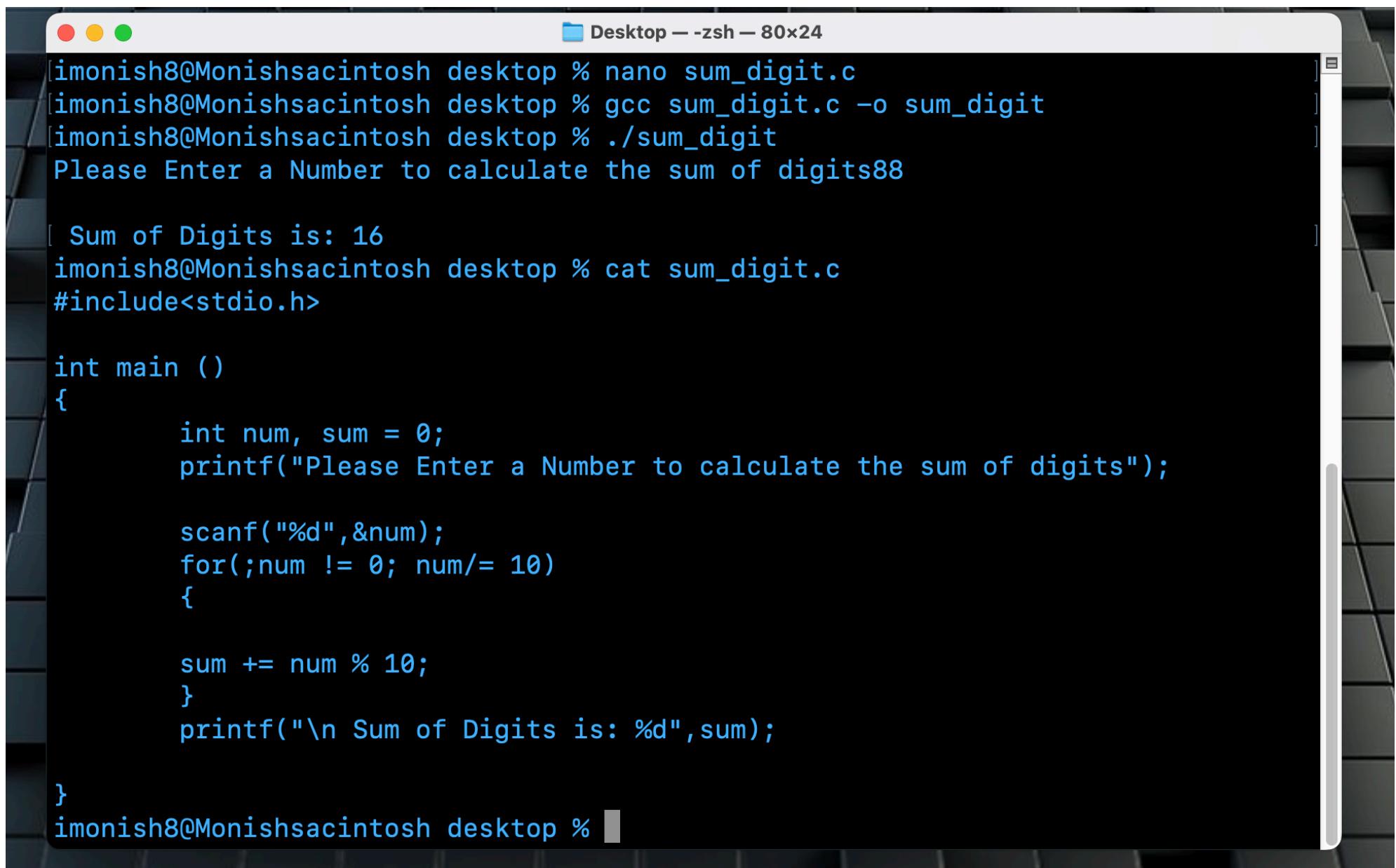


Sum of Digits -



The screenshot shows a terminal window titled "Desktop -- zsh -- 80x24". The session starts with the user navigating to their desktop and opening a nano editor to view a file named "sum_digit.c". The user then compiles the code with gcc and runs the resulting executable. They prompt the user to enter a number to calculate its digit sum. The user inputs "88", and the program outputs the result "Sum of Digits is: 16". Finally, the user types "cat sum_digit.c" to display the source code.

```
[imonish8@Monishsacintosh desktop % nano sum_digit.c
[imonish8@Monishsacintosh desktop % gcc sum_digit.c -o sum_digit
[imonish8@Monishsacintosh desktop % ./sum_digit
Please Enter a Number to calculate the sum of digits88

[ Sum of Digits is: 16
imonish8@Monishsacintosh desktop % cat sum_digit.c
#include<stdio.h>

int main ()
{
    int num, sum = 0;
    printf("Please Enter a Number to calculate the sum of digits");

    scanf("%d",&num);
    for(;num != 0; num/= 10)
    {

        sum += num % 10;
    }
    printf("\n Sum of Digits is: %d",sum);

}
imonish8@Monishsacintosh desktop %
```

The image shows a macOS desktop environment. On the left, a terminal window titled "Desktop -- zsh -- 80x35" displays C code for determining if a number is even or odd. The code defines a function `isEvenOdd` that prints whether a given number is even or odd. It then calls this function from `main` after prompting the user to enter a number. The terminal shows two runs of the program: one where the user enters 11 (odd) and one where they enter 34 (even). On the right, a file browser window titled "Screen... 42 PM C Programs" lists several files: ".C", "switchZero.c", "CDAC 2 items", "exec", "exec", "switchZero", "runit", "even_odd", "Screen... 33 PM even_odd", "Screen... 01PM Screen... 31 PM", "Screen... 1.19 PM write_file.c", "exec", "exec", "file", "write_file", and "DBDA.txt".

```
#include<stdio.h>

void isEvenOdd(int n)
{
    if(n % 2 == 0){
        printf("Entered Number is Even");
    }
    else{
        printf("Entered Number is Odd");
    }
}

int main()
{
    int num = 0;
    printf("\n Enter a number here");
    scanf("%d",&num);
    isEvenOdd(num);

}

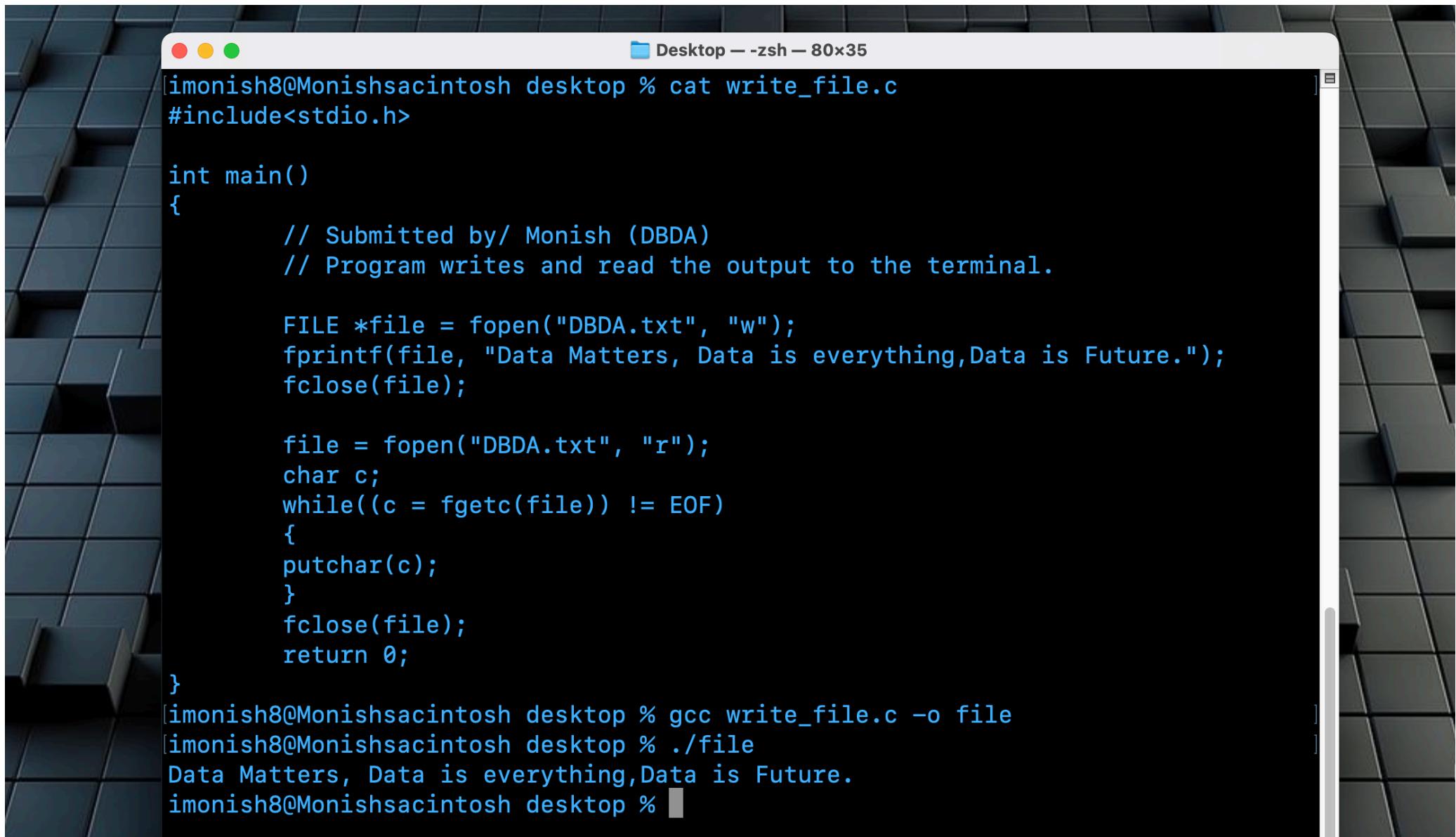
imonish8@Monishsacintosh desktop % cat even_odd.c

imonish8@Monishsacintosh desktop % ./even_odd

    Enter a number here
11
Entered Number is Odd
imonish8@Monishsacintosh desktop % ./even_odd

    Enter a number here
34
Entered Number is Even
imonish8@Monishsacintosh desktop %
```

File Handling



The screenshot shows a terminal window titled "Desktop -- zsh -- 80x35" running on a Mac OS X desktop. The terminal displays the following C program:

```
[imonish8@Monishsacintosh desktop % cat write_file.c
#include<stdio.h>

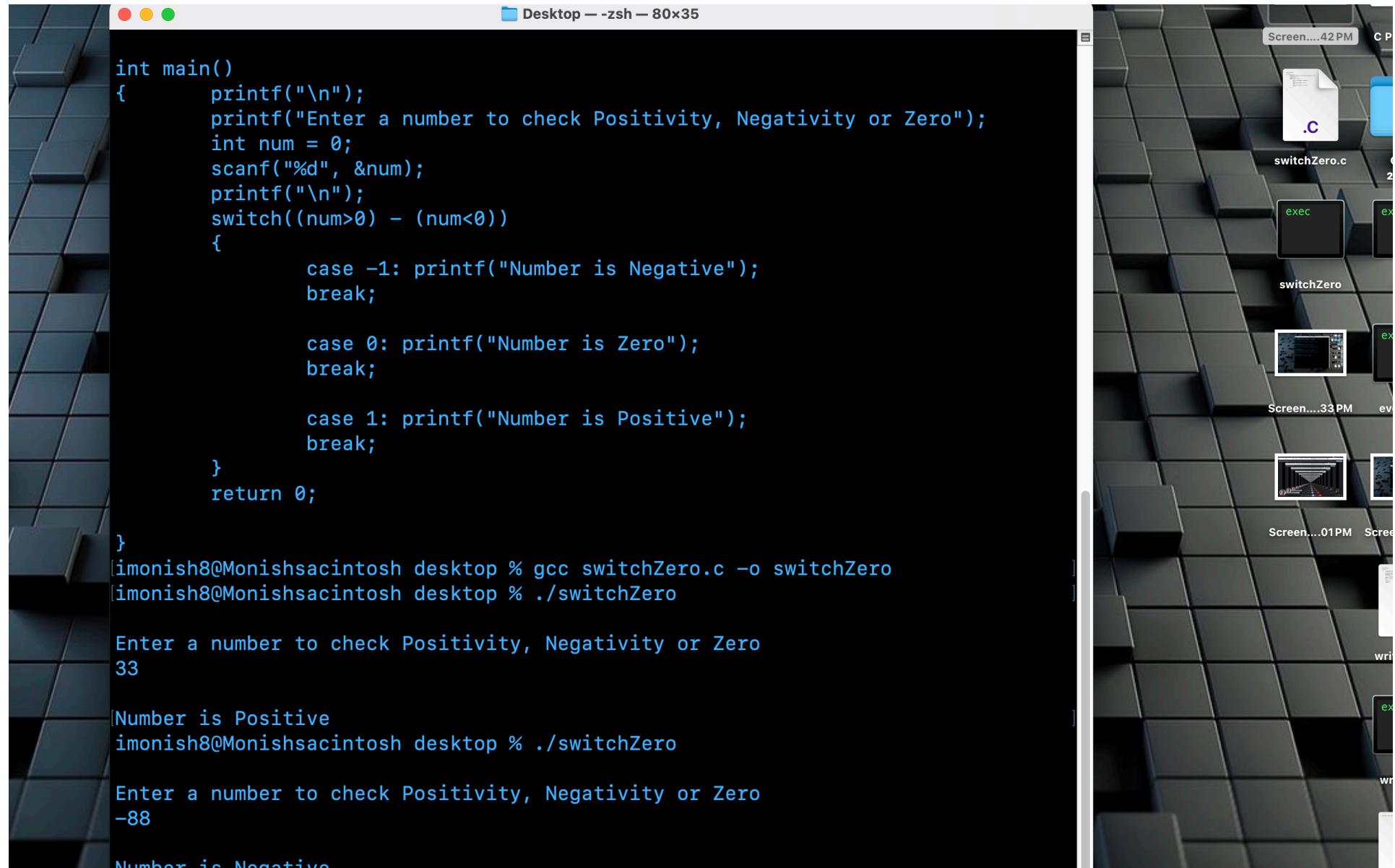
int main()
{
    // Submitted by/ Monish (DBDA)
    // Program writes and read the output to the terminal.

    FILE *file = fopen("DBDA.txt", "w");
    fprintf(file, "Data Matters, Data is everything,Data is Future.");
    fclose(file);

    file = fopen("DBDA.txt", "r");
    char c;
    while((c = fgetc(file)) != EOF)
    {
        putchar(c);
    }
    fclose(file);
    return 0;
}

[imonish8@Monishsacintosh desktop % gcc write_file.c -o file
[imonish8@Monishsacintosh desktop % ./file
Data Matters, Data is everything,Data is Future.
imonish8@Monishsacintosh desktop %
```

Positivity - Negativity.



The image shows a Mac desktop environment. On the left, a terminal window titled "Desktop -- zsh -- 80x35" displays C code for determining the positivity or negativity of a number using a switch statement. The code is as follows:

```
int main()
{
    printf("\n");
    printf("Enter a number to check Positivity, Negativity or Zero");
    int num = 0;
    scanf("%d", &num);
    printf("\n");
    switch((num>0) - (num<0))
    {
        case -1: printf("Number is Negative");
        break;

        case 0: printf("Number is Zero");
        break;

        case 1: printf("Number is Positive");
        break;
    }
    return 0;
}
```

After compilation and execution, the terminal shows the output for two inputs: 33 and -88.

```
imonish8@Monishsacintosh desktop % gcc switchZero.c -o switchZero
imonish8@Monishsacintosh desktop % ./switchZero

Enter a number to check Positivity, Negativity or Zero
33

Number is Positive
imonish8@Monishsacintosh desktop % ./switchZero

Enter a number to check Positivity, Negativity or Zero
-88

Number is Negative
```

On the right side of the screen, a file browser window titled "Screen...42 PM" is open, showing files like "switchZero.c", "exec", and "switchZero".

TEST SUBMITTED BY MONISH NULE