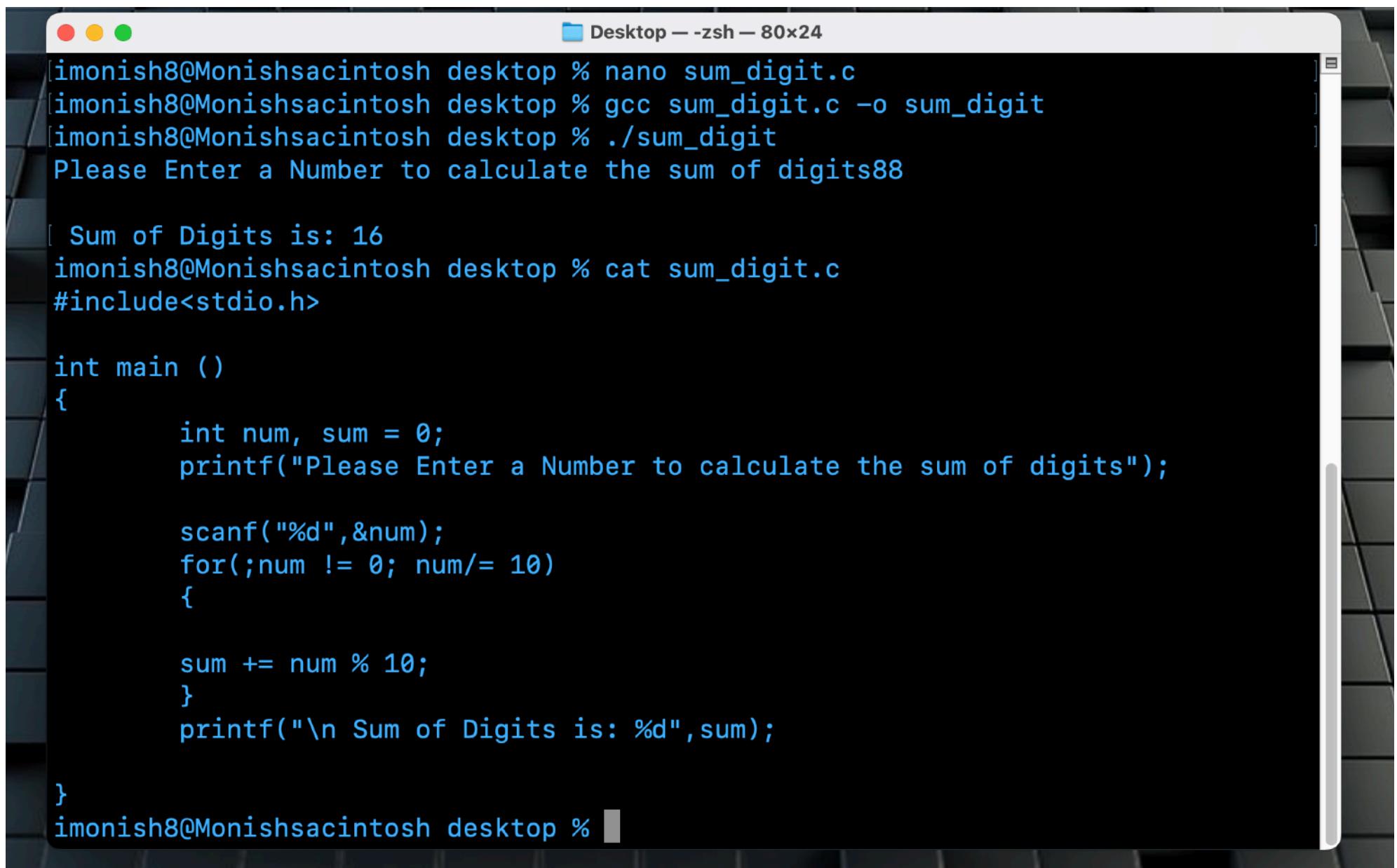


Sum of Digits -



The screenshot shows a terminal window titled "Desktop -- zsh -- 80x24". The user has run the command "nano sum_digit.c" to edit the source code. After saving, they compiled it with "gcc sum_digit.c -o sum_digit" and ran the executable with "./sum_digit". They prompted the user to enter a number to calculate the sum of digits, inputting "88". The output shows the sum of digits for 88 is 16. Finally, they used "cat sum_digit.c" to view the source code again.

```
[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 screenshot of 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`, which prompts the user to enter a number and prints the result. Two executions of the program are shown, one for the input 11 (odd) and one for the input 34 (even). On the right, a file browser window titled "C Programs" shows several files: ".C", "switchZero.c", "CDAC 2 items", "exec", "exec", "switchZero", "runit", "even_odd", "Screen...31PM even_odd", "Screen...01PM Screen...31PM", "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);

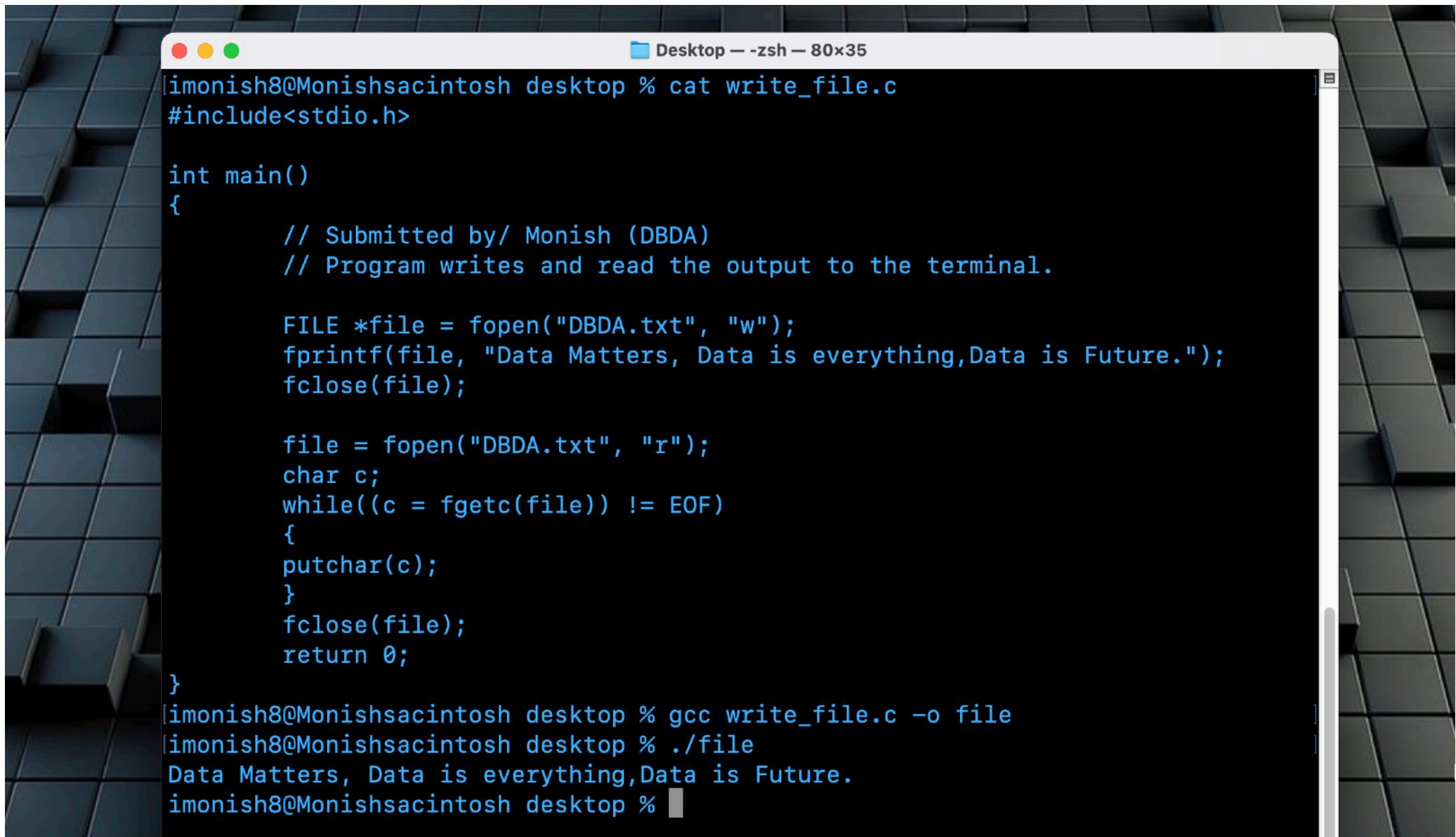
}

imonish8@Monishsacintosh desktop % ./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 macOS desktop environment with a terminal window titled "Desktop -- zsh -- 80x35". The terminal displays the following C program:

```
#include<stdio.h>

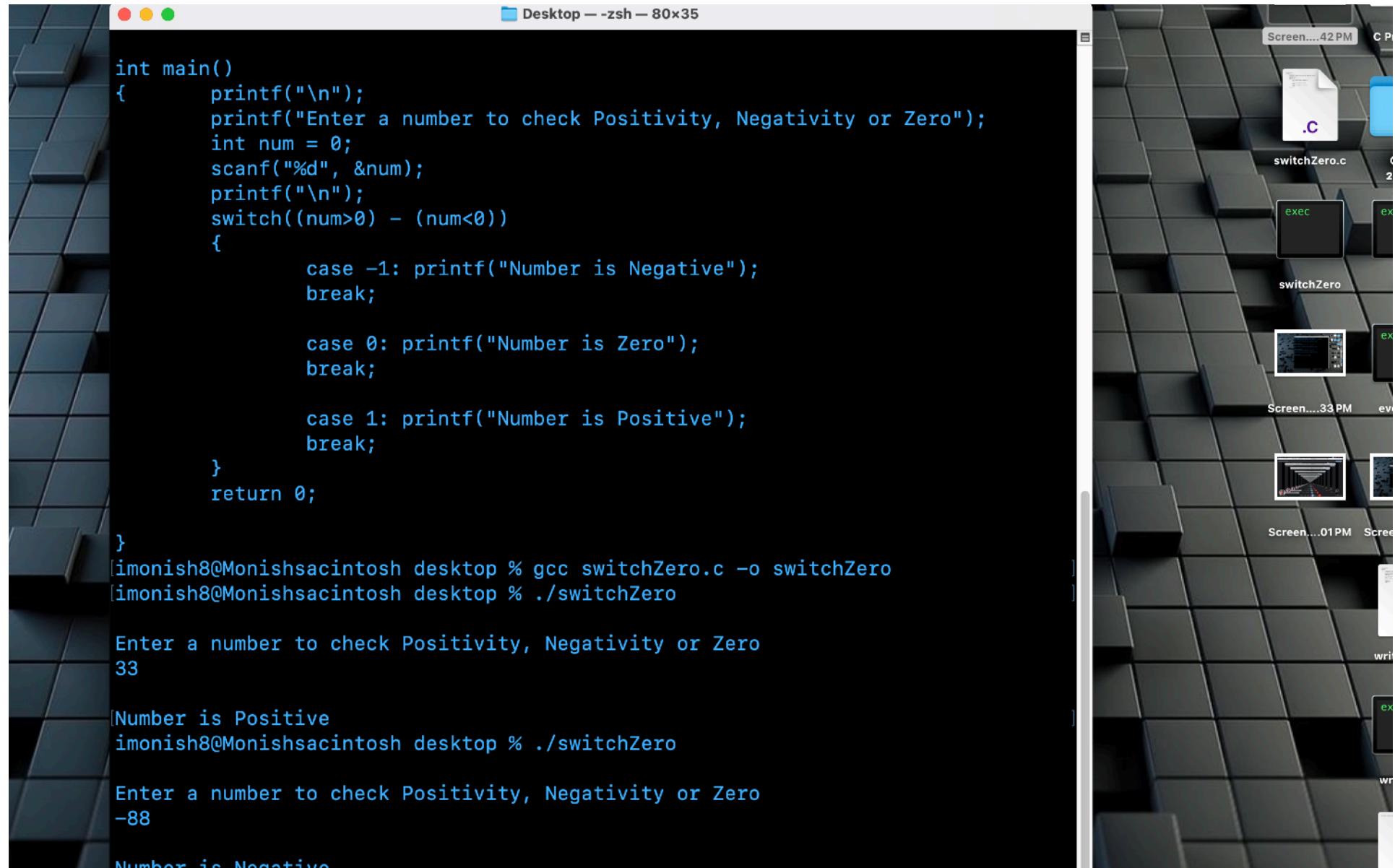
int main()
{
    // Submitted by/ Monish (DBDA)
    // Program writes and read the output to the terminal.

    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;
}
```

After the code is entered, the user runs the program with the command "gcc write_file.c -o file". The output is then displayed, showing the text "Data Matters, Data is everything,Data is Future." printed to the terminal.

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, correctly identifying them as positive and negative respectively.

On the right, a file browser window titled "C P" shows a file named "switchZero.c" with a ".c" icon. Below it, there are other files like "exec" and "switchZero". The desktop background is a dark grey grid pattern.

TEST SUBMITTED BY MONISH NULE