

4a. Program to print the Fibonacci series.

The screenshot shows a code editor interface with a dark theme. On the left, the code file is named "main.c". The code itself is a C program that prompts the user for the number of terms and then prints the Fibonacci series up to that number. The code is numbered from 1 to 22. On the right, there is an "Output" panel. At the top of the output, it says "Enter the number of terms: 10". Below that, the output shows the Fibonacci Series: 0 1 1 2 3 5 8 13 21 34. At the bottom of the output panel, it says "==== Code Execution Successful ===".

```
1 #include <stdio.h>
2
3 int main() {
4     int n, i;
5     int first = 0, second = 1, next;
6
7     printf("Enter the number of terms: ");
8     scanf("%d", &n);
9
10    printf("Fibonacci Series: ");
11
12    for (i = 1; i <= n; i++) {
13        printf("%d ", first);
14        next = first + second;
15        first = second;
16        second = next;
17    }
18
19    printf("\n");
20    return 0;
21 }
22
```

4b. Program to check whether the entered number is prime or not.

The screenshot shows a code editor interface with a dark theme. On the left, the code file is named "main.c". The code is a C program that checks if a given number is prime. It first checks if the number is less than or equal to 1. If so, it is not prime. Then it loops through all numbers from 2 to n/2, checking if any of them divide n evenly. If none do, then n is prime. The code is numbered from 1 to 28. On the right, there is an "Output" panel. It starts with "Enter a number: 19", followed by "19 is a prime number.", and ends with "==== Code Execution Successful ===".

```
1 #include <stdio.h>
2
3 int main() {
4     int n, i, flag = 0;
5
6     printf("Enter a number: ");
7     scanf("%d", &n);
8
9     if (n <= 1) {
10         printf("%d is not a prime number.\n", n);
11         return 0;
12     }
13
14     for (i = 2; i <= n / 2; i++) {
15         if (n % i == 0) {
16             flag = 1;
17             break;
18         }
19     }
20
21     if (flag == 0)
22         printf("%d is a prime number.\n", n);
23     else
24         printf("%d is not a prime number.\n", n);
25
26     return 0;
27 }
28
```