

A screenshot of a C programming environment in a code editor. The main window shows a file named `dsa3.c` containing a C program to calculate the `n`th Fibonacci number. The code uses a recursive function `fibonacci` and a `main` function to read input from the user and print the result. The code editor has a dark theme with syntax highlighting for C. The terminal below shows the execution of the program, including compilation with `gcc` and running the executable to find the 8th Fibonacci number.

```
C dsa3.c > main()
1 #include <stdio.h>
2
3 int fibonacci(int n) {
4     if (n == 0)
5         |    return 0;
6     else if (n == 1)
7         |    return 1;
8     else
9         |    return fibonacci(n - 1) + fibonacci(n - 2);
10 }
11
12 int main() {
13     int n;
14
15     printf("Enter n: ");
16     scanf("%d", &n);
17
18     printf("The %dth Fibonacci number is %d\n", n, fibonacci(n));
19
20     return 0;
21 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Programming with C> gcc dsa3.c
PS C:\Programming with C> ./a.exe
Enter n: 8
The 8th Fibonacci number is 21
PS C:\Programming with C>
```