Stack Implementation in C++ – Breakdown

□Stack Concept (LIFO) <u>F</u>

1. A stack follows the Last In, First Out (LIFO) principle.

2. Think of it like a stack of plates — the last one placed is the first one removed.

3. Defining the Stack & Variables 🖈

4. #define MAX  $10 \rightarrow$  Sets the maximum size of the stack.

5. int stack[MAX]  $\rightarrow$  Array to store stack elements.

Now you can easily slay DSA with stacks!

6. int TOP =  $-1 \rightarrow$  Tracks the last added element (initially empty).

7. EPush Function (Adding Elements) 🚀

8. Checks if the stack is full (TOP == MAX - 1), then prints "Stack is full".

9. If not full, increments TOP and stores the new element in stack[TOP].

10. Taking Input & Storing in Stack ■

11. User enters MAX (10) elements, which are pushed into the stack one by one.

12. Drinting the Stack Elements

13. A loop runs from 0 to TOP, printing all stored elements in order.

Displays all elements in the stack, confirming they were stored successfully!