Assignment 3:Stack Program (Push, Pop, Display operations).

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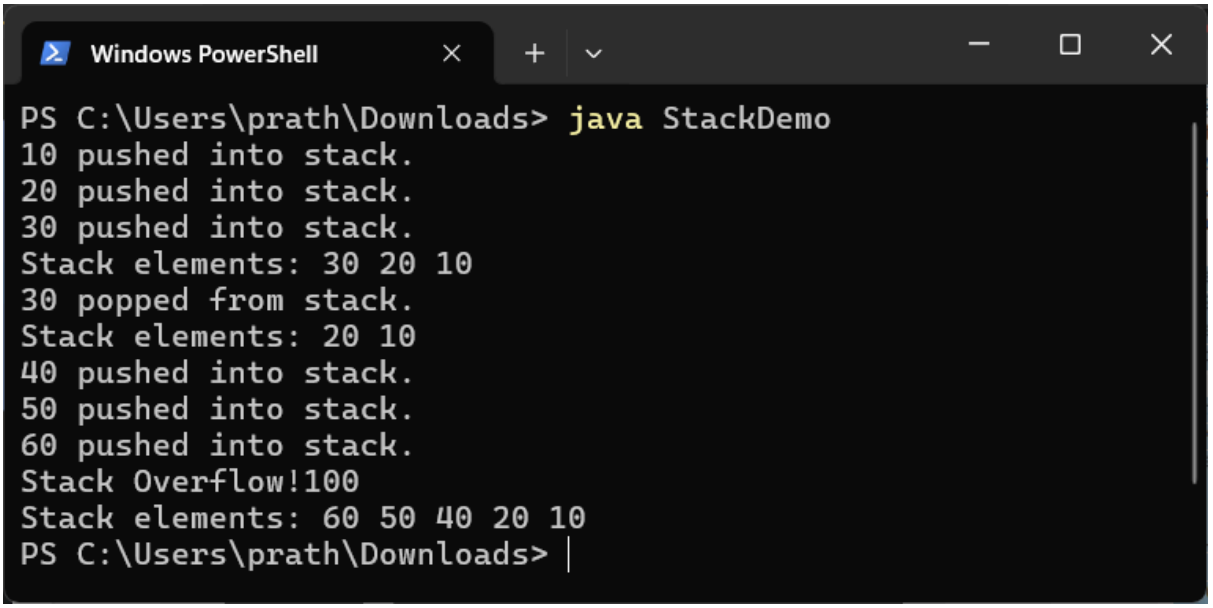
Code:

```
class Stack {
    int top;
    int maxSize;
    int arr[];

    Stack(int size) {
        maxSize = size;
        arr = new int[maxSize];
        top = -1;
    }

    void push(int value) {
        if (top == maxSize - 1) {
            System.out.println("Stack Overflow!" + value);
        } else {
            arr[++top] = value;
            System.out.println(value + " pushed into stack.");
        }
    }

    void pop() {
        if (top == -1) {
            System.out.println("Stack Underflow!");
        } else {
            System.out.println(arr[top--] + " popped from stack.");
        }
    }


    void display() {
        if (top == -1) {
            System.out.println("Stack is empty.");
        } else {
            System.out.print("Stack elements: ");
            for (int i = top; i >= 0; i--) {
                System.out.print(arr[i] + " ");
            }
```

```
            System.out.println();
        }
    }
}

class StackDemo {
    public static void main(String args[]) {
        Stack st = new Stack(5);

        st.push(10);
        st.push(20);
        st.push(30);
        st.display();

        st.pop();
        st.display();

        st.push(40);
        st.push(50);
        st.push(60);
        st.push(100);
        st.display();
    }
}
```

Output:



Output: