

DATA STRUCTURE AND PROGRAM DESIGN LAB – 02

2. Design, Develop and Implement a menu driven Program in C for the following operations on STACK of Integers (Array Implementation of Stack with maximum size MAX)

- a. Push an Element on to Stack
- b. Pop an Element from Stack
- c. Demonstrate how Stack can be used to check Palindrome
- d. Demonstrate Overflow and Underflow situations on Stack
- e. Display the status of Stack
- f. Exit

Support the program with appropriate functions for each of the above operations.

The screenshot shows a terminal window with the following interface elements at the top:

- PROBLEMS
- OUTPUT
- DEBUG CONSOLE
- TERMINAL** (underlined)
- PORTS

The terminal window displays the following text:

```
Name: Prachi
Roll No: 115
Age: 21
Average Marks: 80.00
PS C:\Users\prach\OneDrive\Desktop\DSPD LAB> gcc Practical-2.c
PS C:\Users\prach\OneDrive\Desktop\DSPD LAB> ./a.exe

1.Push
2.Pop
3.Check Palindrome
4.Demo Overflow/Underflow
5.Display
6.Exit
Enter your choice:
1
Enter value to push: 56
56 pushed onto stack.

1.Push
2.Pop
3.Check Palindrome
4.Demo Overflow/Underflow
5.Display
6.Exit
Enter your choice: 6
PS C:\Users\prach\OneDrive\Desktop\DSPD LAB>
```

