

Activity No. 4	
Stacks	
Course Code: CPE010	Program: Computer Engineering
Course Title: Data Structures and Algorithms	Date Performed: 10 / 04 / 2024
Section: CPE21S4	Date Submitted: 10 / 05 / 2024
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6. Output

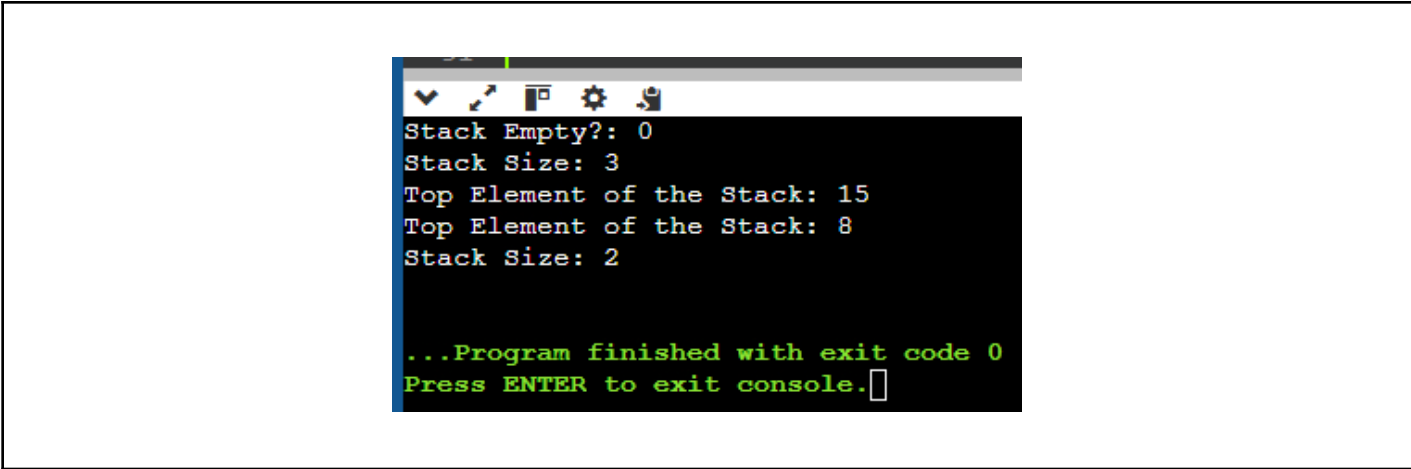


TABLE 4-1. Table Output of ILO A.

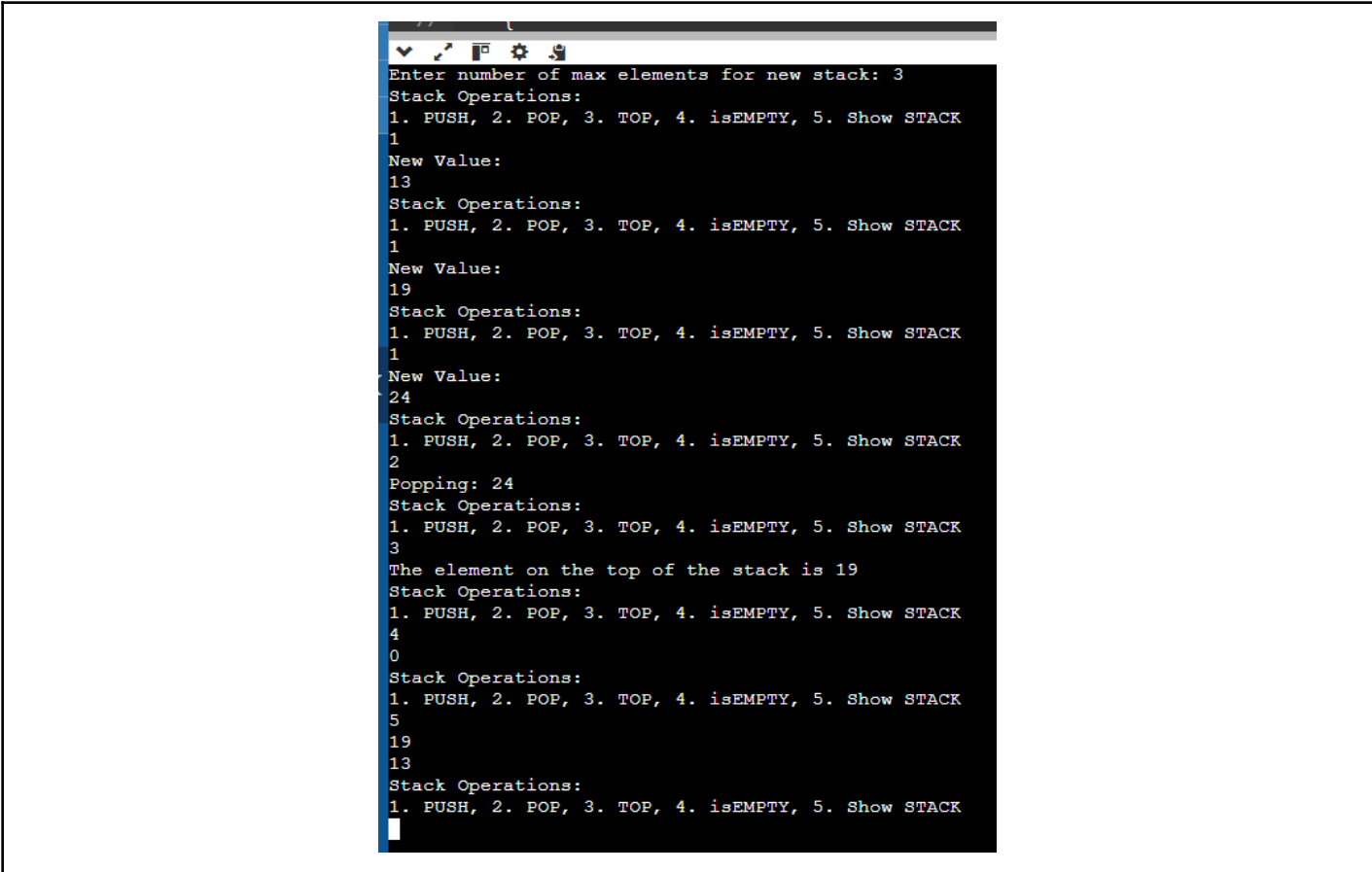


TABLE 4-2. Table Output of ILO B-1.

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After the first PUSH top of stack is :Top of Stack: 1
Stack Display: 1
After the second PUSH top of stack is :Top of Stack: 5
Stack Display: 51
After the first POP operation, top of stack is:Top of Stack: 1
Stack Display: 1
After the second POP operation, top of stack :Stack is Empty.
Stack Display:
Stack Underflow.
Stack Display:

```

TABLE 4-3. Table Output of ILO B-2.

7. Supplementary Activity

Expression	Valid (Y / N)	Output	Analysis
$(A + B) + (C - D)$	Y	Expression: (A+B)+(C-D) Start and/or end symbol/s have the same pair.	Parentheses within the given expression are completely and correctly paired.
$((A + B) + (C - D))$	N	Expression: ((A+B)+(C-D)) Start and/or end symbol/s does not have a pair.	Starting parenthesis does not have a pair.
$((A + B) + [C - D])$	Y	Expression: ((A+B)+[C-D]) Start and/or end symbol/s have the same pair.	Parentheses and square brackets within the given expression are completely and correctly paired.
$((A + B) + [C - D])\}$	N	Expression: ((A+B)+[C-D]) Start and/or end symbol/s are mismatched.	Some brackets within the expression are incorrectly paired to one another

8. Conclusion

I have learned more about how stacks are used and use necessary operations to manipulate them. I think I have done the needed tasks in this experiment well, such as creating the display function for the task within the ILO B-1. As for the supplementary activity, I can say that I have struggled to create a condition for identifying the proper pairings of brackets from the given expressions, but I managed to accomplish it as well.

9. Assessment Rubric