

CSCI-UA-102-011-Spring-2025

Recitation - 4

Note

- Assignment 2 accidentally contained a question about trees which has now been removed

Agenda

- Stacks and Queues
- 6.3
- Problem Statements
- Quiz (Last 20 mins)

Problem Statements (10-15 mins)

- Q4.13
- Q6.19
- Q6.20
- Q6.24

```
Stack<Integer> S = new ArrayStack<>(); // contents: ()
S.push(5); // contents: (5)
S.push(3); // contents: (5, 3)
System.out.println(S.size()); // contents: (5, 3) outputs 2
System.out.println(S.pop()); // contents: (5) outputs 3
System.out.println(S.isEmpty()); // contents: (5) outputs false
System.out.println(S.pop()); // contents: () outputs 5
System.out.println(S.isEmpty()); // contents: () outputs true
System.out.println(S.pop()); // contents: () outputs null
S.push(7); // contents: (7)
S.push(9); // contents: (7, 9)
System.out.println(S.top()); // contents: (7, 9) outputs 9
S.push(4); // contents: (7, 9, 4)
System.out.println(S.size()); // contents: (7, 9, 4) outputs 3
System.out.println(S.pop()); // contents: (7, 9) outputs 4
S.push(6); // contents: (7, 9, 6)
S.push(8); // contents: (7, 9, 6, 8)
System.out.println(S.pop()); // contents: (7, 9, 6) outputs 8
```