

Stack Using Two Queues

```
import java.util.LinkedList;
import java.util.Queue;
public class StackUsingTwoQueues {
    Queue q1 = new LinkedList<>();
    Queue q2 = new LinkedList<>();
    public void push(int x) {
        q2.add(x);
        while (!q1.isEmpty()) {
            q2.add(q1.remove());
        }
        Queue temp = q1;
        q1 = q2;
        q2 = temp;
    }
    public int pop() {
        if (q1.isEmpty()) {
            throw new RuntimeException("Stack is empty");
        }
        return q1.remove();
    }
    public int top() {
        if (q1.isEmpty()) {
            throw new RuntimeException("Stack is empty");
        }
        return q1.peek();
    }
    public boolean isEmpty() {
        return q1.isEmpty();
    }
    public static void main(String[] args) {
        StackUsingTwoQueues stack = new StackUsingTwoQueues();
        stack.push(10);
        stack.push(20);
        System.out.println("Top: " + stack.top());
        System.out.println("Pop: " + stack.pop());
        System.out.println("Pop: " + stack.pop());
    }
}
```