

## Imp. Stack By use of 2 QUEUE

```
import java.util.*;

class Q {

    Stack<Integer> in = new Stack<>();
    Stack<Integer> out = new Stack<>();

    void add(int x) {
        in.push(x);
    }

    int remove() {
        shift();
        return out.pop();
    }

    int peek() {
        shift();
        return out.peek();
    }

    boolean isEmpty() {
        return in.isEmpty() && out.isEmpty();
    }

    void shift() {
        if (out.isEmpty())
            while (!in.isEmpty())
                out.push(in.pop());
    }
}
```

## Queue by 2 stack

```
import java.util.*;  
  
class Stack {  
  
    Queue<Integer> q1 = new LinkedList<>();  
    Queue<Integer> q2 = new LinkedList<>();  
  
  
    void push(int x) {  
        q2.add(x);  
  
        while (!q1.isEmpty()) {  
            q2.add(q1.remove());}  
  
        // swap  
  
        Queue<Integer> temp = q1;  
        q1 = q2;  
        q2 = temp;}  
  
  
    int pop() {  
        return q1.remove();}  
  
  
    int peek() {  
        return q1.peek();}  
  
  
    boolean isEmpty() {  
        return q1.isEmpty();}}
```