class Stack{

private int size;

private int top;

int[] data;

Stack(int size){

this.size = size;

data = new int[size];

top = -1;

}

public void push(int item) throws CustomException{

if(!isFull()){

data[++top] = item;

}

else{

throw new CustomException("Stack Overflow");

}

}

public boolean isEmpty(){

return top == -1;

}

public boolean isFull(){

return top == size;

}

public int pop() throws CustomException{

if(!isEmpty()){

return data[top--];

}

else{

throw new CustomException("Stack Overflow");

}

}

public static void main(String[] args) {

Stack s = new Stack(4);

s.push(3);

s.push(5);

s.push(1);

System.out.println(s.pop());

System.out.println(s.pop());

System.out.println(s.pop());

System.out.println(s.pop());

System.out.println(s.pop());

System.out.println(s.pop());

}

}