//Stack.java

import java.util.Arrays;

public class Stack <T>

{

private int count;

private T[] data;

public Stack()

{

data = (T[]) new Object[8];

count = 0;

}

void expandCapacity()

{

data = Arrays.copyOf(data, data.length \* 2);

}

void push(T e)

{

if (count == data.length)

expandCapacity();

data[count++] = e;

}

T pop() throws Exception

{

if (count <= 0)

{

throw new Exception("stack empty");

}

count--;

return data[count];

}

boolean isEmpty()

{

return count == 0;

}

int size()

{

return count;

}

public static void main(String[] args) throws Exception

{

Stack<String> s = new Stack<String>();

s.push("Alice");

s.push("Bob");

s.push("Carl");

s.push("Dave");

while (!s.isEmpty())

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

}

}