

LAB 2 REQUIREMENTS

50 points -individual effort

Place the following disclaimer at the beginning of each java file.

```
/* LAB #
```

```
*FALL 2013
```

```
*STUDENT'S FIRST NAME, LAST NAME
```

```
* Following program is my own effort/work.
```

```
*I did not copy this program or program segment from anyone or any website site. If proven otherwise I will accept the consequences and the actions that will be taken for cheating in this class.
```

```
*/
```

Problem 1: Reverse Characters Words [15 points]

Design and implement an application named as **ReverseCharacters** that reads a sentence from the user and prints the sentence with the characters of each word backwards.

You must use a stack to reverse the characters of each word.

Use the package provided for you with these requirements to complete this work.

- Document if there is any pre or post conditions for your method(s).
- Include data validation of some form in your code.

Sample Run:

```

> Debugger Console  LAB2 SOL CSE231 FALL2013 (run)
> run:
Enter a sentence:
Hello World
Reversing each word:
olleH dlroW
BUILD SUCCESSFUL (total time: 3 seconds)
  
```

Problem 2: Reverse Words [10 points]

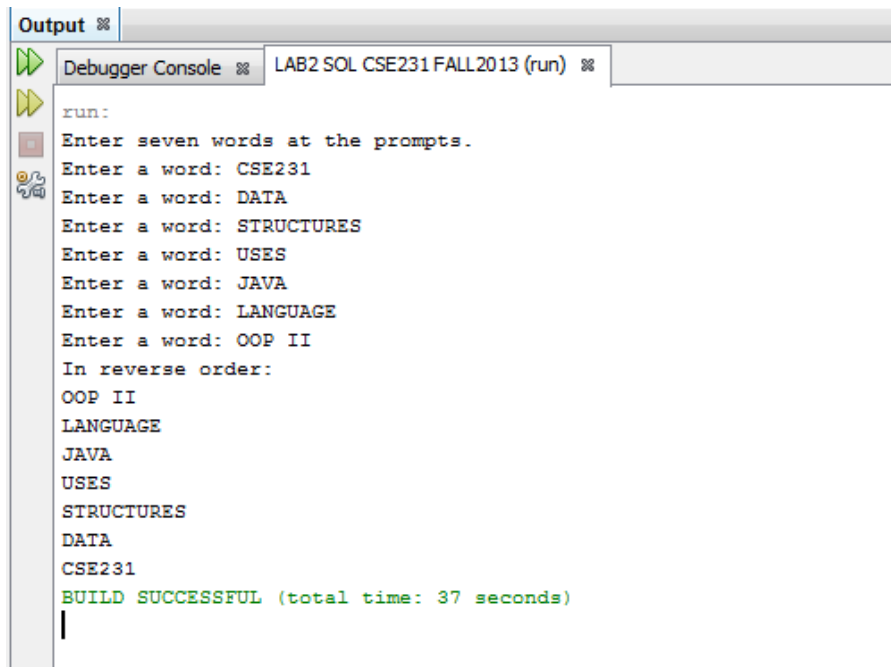
Implement a class called **ReverseWords** that uses a stack to output a set of elements input by the user in reverse order.

You must use a stack to reverse the characters of each word.

Use the package provided for you with these requirements to complete this work.

- Document if there is any pre or post conditions for your method(s).
- Include data validation of some form in your code.

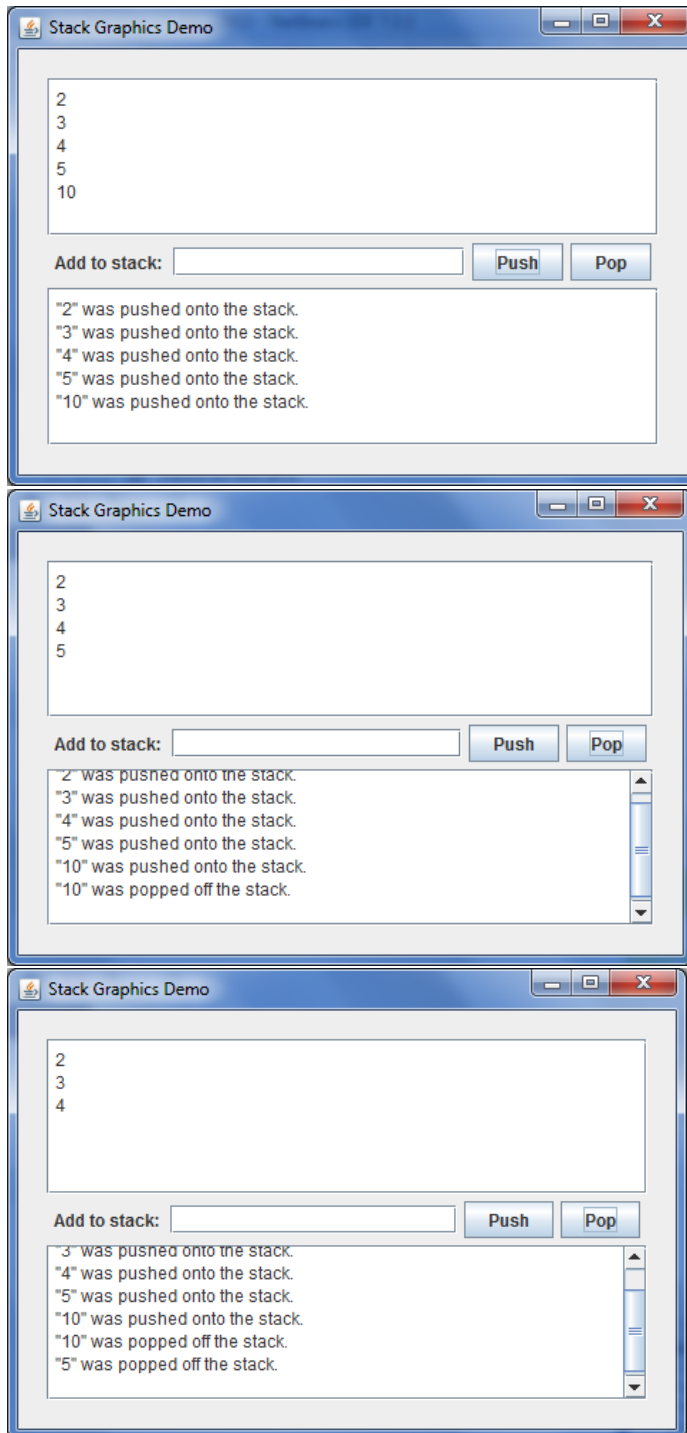
Sample Run:

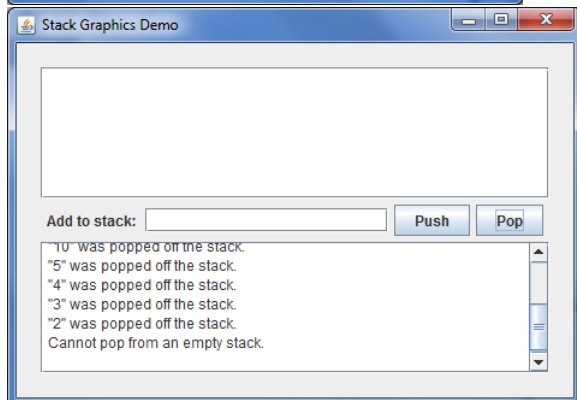
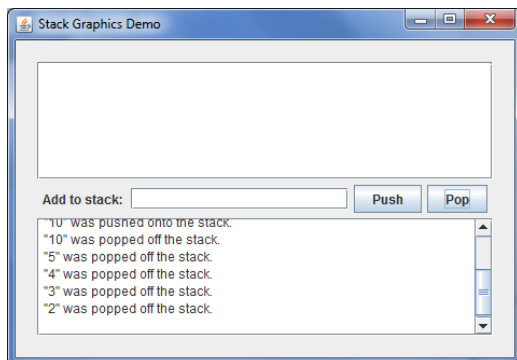
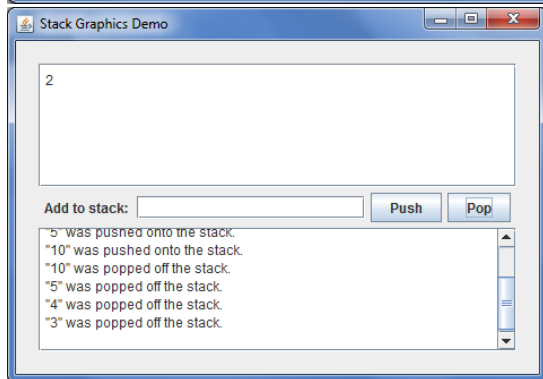
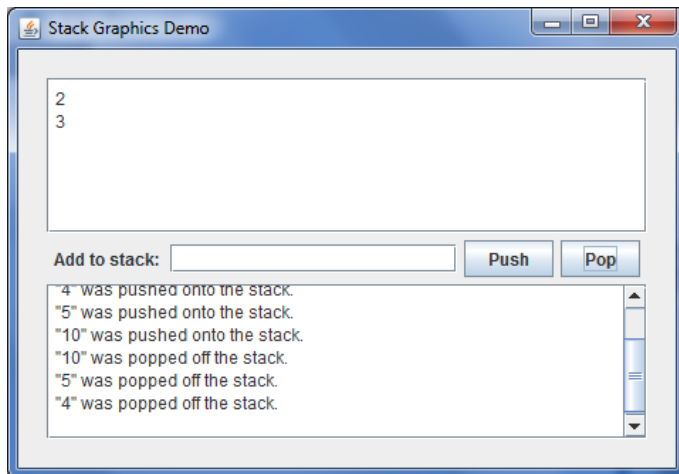


```
Output %  
Debugger Console % LAB2 SOL CSE231 FALL2013 (run) %  
run:  
Enter seven words at the prompts.  
Enter a word: CSE231  
Enter a word: DATA  
Enter a word: STRUCTURES  
Enter a word: USES  
Enter a word: JAVA  
Enter a word: LANGUAGE  
Enter a word: OOP II  
In reverse order:  
OOP II  
LANGUAGE  
JAVA  
USES  
STRUCTURES  
DATA  
CSE231  
BUILD SUCCESSFUL (total time: 37 seconds)
```

PROBLEM 3 [25 points]

Create a graphical application **StackDemoGUI** that provides a button for push and pop from a stack, a text field to accept a string as input for push, and a text area to display the contents of the stack after each operation.





- Document if there is any pre or post conditions for your method(s).
- Include data validation of some form in your code.

SUBMISSION:

Please upload the following .java files under Lab2 folder:

ReverseCharacters.java

ReverseWords.java

StackDemoGUI.java

Zip the folder and upload through Moodle.

INTERVIEW:

The interview is 40% of your lab 2 grade. Come to class be prepared and ready you explain your code.

Also you will be tested on executing your work on command line, make sure to go over the steps on how to execute your work on command line.