Homework 4

Source Code:

```java
// Homework4.java

package com;

import containers.Stack;

public class Homework4 {
    // Create three new stacks
    private static Stack<Integer> stack1 = new Stack<Integer>();
    private static Stack<Integer> stack2 = new Stack<Integer>();
    private static Stack<Integer> stackResult = new Stack<Integer>();

    // Implement the addLargeNumber method
    public static void addLargeNumber (String num1, String num2) {
        // Convert input strings to char array
        char[] arraynum1 = num1.toCharArray();
        char[] arraynum2 = num2.toCharArray();
        // Store input strings into stacks
        for(int i = 0; i<arraynum1.length; i++) {
            stack1.push(Integer.parseInt(String.valueOf(arraynum1[i])));
        }
        for(int i = 0; i < arraynum2.length; i++) {
            stack2.push(Integer.parseInt(String.valueOf(arraynum2[i])));
        }
        // Create variable result
        var result = 0;
        // Add two poped values to result
        while(!stack1.isEmpty() || !stack2.isEmpty()) {
            if(!stack1.isEmpty()) {
                result += stack1.pop();
```

```java
            }
            if(!stack2.isEmpty()) {
                    result += stack2.pop();
            }
            stackResult.push(result % 10);
            result = result / 10;
        }
        // Push the remaining carry part to the result
        if(result != 0) {
            stackResult.push(result);
        }
        // Print the result stack
        while(!stackResult.isEmpty()) {
                System.out.print(stackResult.pop());
        }
        System.out.println();
    }


    //main method demostration
    public static void main(String[] args) {
        addLargeNumber("3098", "234");
        addLargeNumber("239420952923", "592323434242");
        addLargeNumber("7777777777777", "999");
    }

}
```

Output:

3332

831744387165

7777777778776

```
3332
831744387165
7777777778776
```