Ex. 1

```
package javastack;

import java.util.Scanner;
import java.util.Stack;

/**
 *
 * @author RESTIFICAR
 */
public class Input {

    public static void main(String[] args) {

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

        Scanner input = new Scanner (System.in);


        for(int i=1;i<6;i++){
            System.out.print("Name " + i + ": ");
            String element=input.nextLine();
            names.push(element);
        }

        //print stack element
        System.out.println();
        System.out.println("Inputted Names are:
");
            for(int i=0;i<names.size();i++){
                System.out.println(names.get(i));
        }

        System.out.println();

        String element = names.pop();
        System.out.println("Removed Element: "
+ element);

        System.out.println();

        element = names.peek();
        System.out.println("Element at top: " +
element);

        System.out.println();

        names.insertElementAt("Zach", 2);
        System.out.println(""+names);

        System.out.println();

        names.insertElementAt("Ynna", 2);
        System.out.println(""+names);
    }

}
```

Ex. 2

```
package javastack;

import java.util.Stack;

public class JavaStack {


    public static void main(String[] args) {
        Stack <String> names= new Stack <> ();


        System.out.println("PUSH METHOD");
        // Add elements to Stack using push()
method
        names.push("Anna");
        names.push("Ben");
        names.push("Catherine");
        names.push("David");
        System.out.println("Stack: " + names);

        int x=names.size();
        System.out.println("The stack size is:
"+x);

        System.out.println();

        System.out.println("POP METHOD");
        // Remove element stacks
        String element = names.pop();
        System.out.println("Removed Element: "
+ element);

        System.out.println();

        System.out.println("PEEK METHOD");
        // Access element from the top
        element = names.peek();
        System.out.println("Element at top: " +
element);

        System.out.println();

        System.out.println("SEARCH METHOD");
        // Search an element
        int position = names.search("Anna");
        System.out.println("Position of Anna: " +
position);

        System.out.println();

        System.out.println("EMPTY METHOD");
        // Check if stack is empty
        boolean result = names.empty();
        System.out.println("Is the stack empty? "
+ result);

        System.out.println();

        names.insertElementAt("Sarah", 2);
//insertElementAt(element, index)
        System.out.println(""+names);
    }

}
```

Ex. 3

```
/*
 * To change this license header, choose
License Headers in Project Properties.
 * To change this template file, choose Tools |
Templates
 * and open the template in the editor.
 */
package javastack;

//import java.util.Stack;

import java.util.Stack;

/**
 *
 * @author RESTIFICAR
 */
public class NewStack {

    /**
     * @param args the command line
arguments
     */
    public static void main(String[] args) {
        Stack<Integer> stack = new Stack<>();

    stack.push(10);
        stack.push(20);
        stack.push(30);

    System.out.println("Stack: " + stack);

    System.out.println("Top element: " +
stack.peek());


        System.out.println("Popped element: " +
stack.pop());

        System.out.println("Is stack empty? " +
stack.empty());

        System.out.println("Position of 10: " +
stack.search(10));

        System.out.println("Final Stack: " + stack);


    }

}
```

Ex. 4

```
package javaact1;

import java.util.Scanner;
import java.util.Stack;

/**
 *
 * @author Lenovo Thinkpad
 */
public class JavaACT1 {

    /**
     * @param args the command line
arguments
     */


    public static void main(String[] args) {
        Stack<String> inventory = new Stack<>();
        Scanner input = new Scanner(System.in);

        //ADDING VALUE TO THE STOCK
        System.out.println("Enter How many
stock to put: ");
        int num_stock_to_enter = input.nextInt();
        input.nextLine();
        for(int i=0; i<num_stock_to_enter; i++){
            System.out.print("Enter Product: ");
            String prod = input.nextLine();
            inventory.add(prod);
        }

        //GETTING ALL THE VALUE OF THE STOCK
        System.out.println("INVENTORY:");
        for(String key : inventory)
System.out.println(key);

        System.out.println("Removed:
"+inventory.pop());
        System.out.println("Top :
"+inventory.peek());

        System.out.println("CURRENT IN THE
INVENTORY:");
        for(String key : inventory)
System.out.println(key);

        System.out.println("Is inventory empty?:
"+ inventory.isEmpty());

    }
}
```