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);


   }

}
```