

## **IMPLEMENTATION OF STACK**

**Design a Java interface for ADT Stack. Develop two different classes that implement this interface, one using array and the other using linked-list. Provide necessary exception handling in both the implementations.**

### **ALGORITHM**

**STEP 1:** Create an interface which consists of three methods namely PUSH, POP and DISPLAY

**STEP 2:** Create a class which implements the above interface to implement the concept of stack through Array

**STEP 3:** Define all the methods of the interface to push any element, to pop the top element and to display the elements present in the stack.

**STEP 4:** Create another class which implements the same interface to implement the concept of stack through linked list.

**STEP 5:** Repeat STEP 4 for the above said class also.

**STEP 6:** In the main class, get the choice from the user to choose whether array implementation or linked list implementation of the stack.

**STEP 7:** Call the methods appropriately according to the choices made by the user in the previous step.

**STEP 8:** Repeat step 6 and step 7 until the user stops his/her execution