```java
1    import java.util.*;// to use Scanner
2
3    // implementing the static List ADT using array
4    // operations to be implemented: read, write/modify
5
6    class List{
7
8        private int array[];
9
10       public List(int size){
11           array = new int[size];
12       }
13
14       public void write(int index, int data){
15           array[index] = data;
16       }
17
18       public int read(int index){
19           return array[index];
20       }
21
22   }
23
24   class StaticListArray{
25
26       public static void main(String[] args){
27
28       Scanner input = new Scanner(System.in);
29
30       int listSize;
31
32       System.out.print("Enter list size: ");
33       listSize = input.nextInt();
34
35       List integerList = new List(listSize);
36
37       for (int i = 0; i < listSize; i++){
38
39           int value;
40           System.out.print("Enter element # "+ i+" : ");
41           value = input.nextInt();
42
43           integerList.write(i, value);
44       }
45
46       // to read an element at a particular index (before modify)
47
48       int readIndex;
49       System.out.print("Enter an index to read (before modify): ");
50       readIndex = input.nextInt();
51       System.out.println("Value at "+ readIndex +" is: " + integerList.read(readIndex) );
52
53       // to modify an element at a particular index
54
55       int modifyIndex;
56       System.out.print("Enter an index to modify: ");
57       modifyIndex = input.nextInt();
58       int modifyValue;
59       System.out.print("Enter the new value for index "+modifyIndex+" : ");
60       modifyValue = input.nextInt();
61       integerList.write(modifyIndex, modifyValue);
62
63
64       // to read an element at a particular index (after modify)
```

```
65
66        System.out.print("Enter an index to read (after modify): ");
67        readIndex = input.nextInt();
68        System.out.println("Value at "+ readIndex +" is: " + integerList.read(readIndex) );
69
70        }
71
72    }
```

```
Enter list size: 5
Enter element # 0 : 12
Enter element # 1 : 45
Enter element # 2 : 78
Enter element # 3 : 55
Enter element # 4 : 99
Enter an index to read (before modify): 1
Value at 1 is: 45
Enter an index to modify: 2
Enter the new value for index 2 : 33
Enter an index to read (after modify): 2
Value at 2 is: 33
```