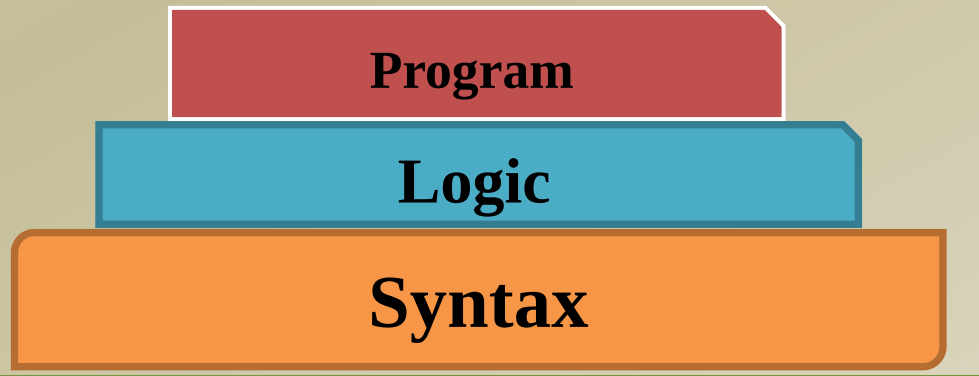
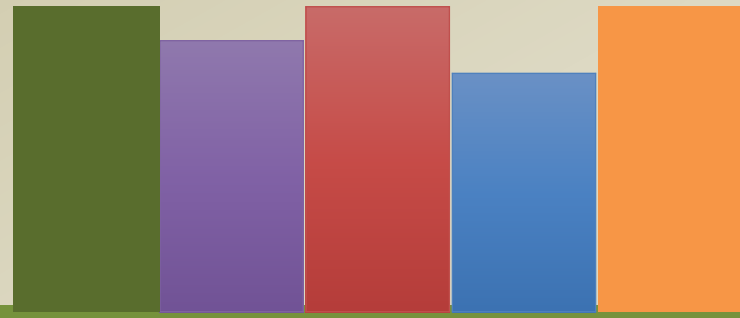
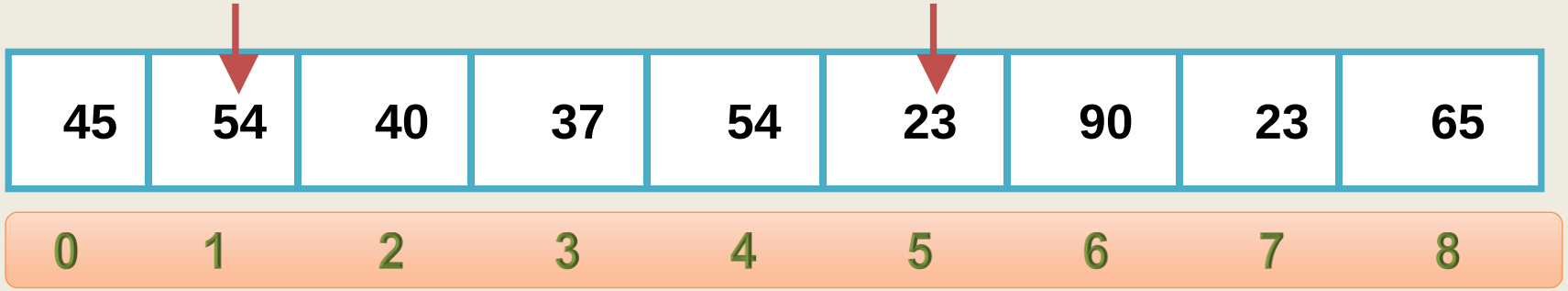
Code at Random (OPC) PVT. LTD.

# Linear Search in JAVA



# First Occurrence Of The Number In The Array

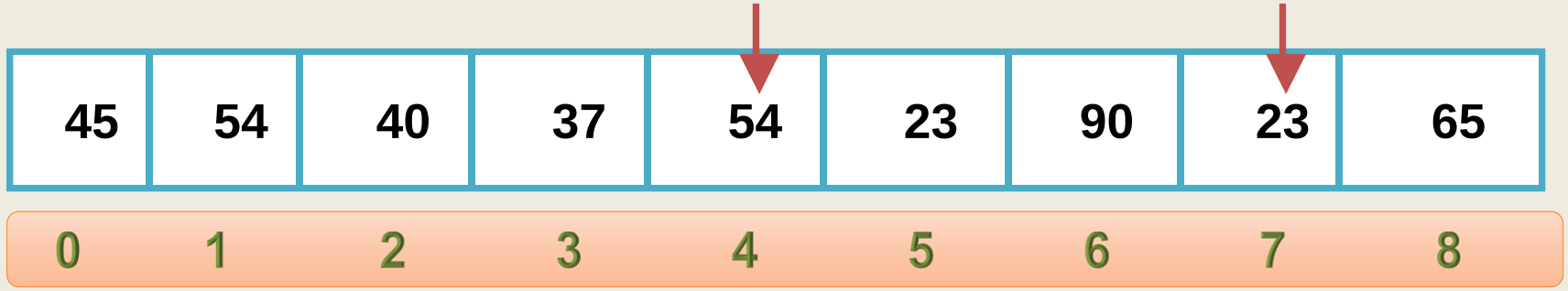



| Element | First Occurrence |
|---|---|
| 54 | Index: 1 ; Position: 2 |
| 23 | Index: 5 ; Position: 6 |
| 40 | Index: 2 ; Position: 3 |
| 32 | Not Found |

WAP to input n numbers in an array and a number to search in the array. Perform the Linear Search and check whether the number is present in the array or not. If present, print the **first occurrence** of the number.

```
import java.util.*;
public class first_occurrence {
   public static void main(String Args[]) {
       int l,i,flag=0;
       Scanner sc = new Scanner(System.in);
       System.out.println("Enter the size of the array");
       L= sc.nextInt();
       int A[] = new int[L];
       System.out.println("Enter the elements of the array");
       for(i =0; i< L ; i++) {
        A[i] = sc.nextInt( );
      }
      System.out.println("Enter the element to be searched");
      int n = sc.nextInt();
       for(i=0 ; i<L ; i++) {
          if(A[i] == n) {
              flag=1;
              break;
          }
   }
       if(flag==1)
      System.out.println("Element found first at index "+i+"
                                          at position "+ (i+1));
       else
           System.out.println("Not Found");
    }
}
```

# Last Occurrence Of The Number In The Array

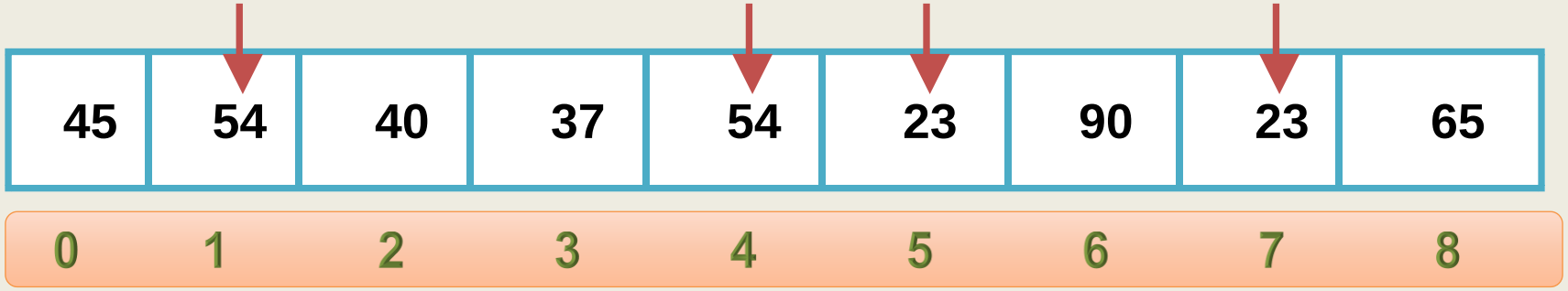



| Element | First Occurrence |
|---|---|
| 54 | Index: 4 ; Position: 5 |
| 23 | Index: 7 ; Position: 8 |
| 40 | Index: 2 ; Position: 3 |
| 32 | Not Found |

WAP to input n numbers in an array and a number to search in the array. Perform the Linear Search and check whether the number is present in the array or not. If present, print the **last occurrence** of the number.

```
import java.util.*;
public class last_occurrence {
   public static void main (String Args[]) {
       int l,i,flag=0;
       Scanner sc = new Scanner(System.in);
       System.out.println("Enter the size of the array");
       L= sc.nextInt();
       int A[] = new int[L];
       System.out.println("Enter the elements of the array");
       for(i =0; i< L ; i++) {
        A[i] = sc.nextInt( );
      }
      System.out.println("Enter the element to be searched");
      int n = sc.nextInt();
       for(i= L-1 ; i>=0 ; i--) {
          if(A[i] == n) {
              flag=1;
              break;
          }
   }
       if(flag==1)
           System.out.println("Element found last at index
"+i+" at position "+ (i+1));
       else
           System.out.println("Not Found");
    }
}
```

# All Occurrences Of The Number In The Array




| Element | First Occurrence |
|---|---|
| 54 | Index: 1,4 ; Position: 2,5 |
| 23 | Index: 5,7 ; Position: 6,8 |
| 40 | Index: 2 ; Position: 3 |
| 32 | Not Found |

WAP to input n numbers in an array and a number to search in the array. Perform the Linear Search and check whether the number is present in the array or not. If present, print the **all occurrences** of the number.

```
import java.util.*;
public class all_occurrence {
   public static void main(String Args[]) {
       int l,i,flag=0;
       Scanner sc = new Scanner(System.in);
       System.out.println("Enter the size of the array");
       L= sc.nextInt();
       int A[] = new int[L];
       System.out.println("Enter the elements of the array");
       for(i =0; i< L ; i++) {
        A[i] = sc.nextInt( );
      }
      System.out.println("Enter the element to be searched");
      int n = sc.nextInt();
      for(i=0 ; i<L ; i++) {
          if(A[i]==n){
              flag=1;
              System.out.println("Element found at index "+i+" at position "+ (i+1));
          }
      }
 if(flag= =0){
      System.out.println("Not Found");
      }
   }
}
```

# WAP to input roll numbers & marks of n students in two different arrays. Take an input the roll number & print its respective marks.

```
import java.util.*;
public class student {
   public static void main(String Args[]) {
       int i,flag=0;
       Scanner sc = new Scanner(System.in);
       System.out.println("Enter the size of the arrays");
       int L= sc.nextInt();
       int R[ ] = new int[L];
       int M[ ] = new int[L];
       for(i =0; i< L ; i++) {
          System.out.println("Enter the roll no and marks of
"+(i+1)+" student");
        R[i] = sc.nextInt( );
        M[i] = sc.nextInt();
      }
     System.out.println("Enter the roll no to be searched");
      int n = sc.nextInt();
 for(i=0;i<L;i++) {
         if(R[i]==n){
            flag=1;
            break;
         }
      }
      if(flag==1)
      System.out.println("Marks of this student "+M[i]);
      else
         System.out.println("Invalid Roll Number");
   }
}
```