List in Java

A **list in Java** is a collection for storing elements in sequential order. Sequential order means the first element, followed by the second element, followed by the third element, and so on.

```
package listPrograms;
import java.util.ArrayList;
import java.util.List;
public class AddEx {
public static void main(String[] args)
{
// Create a List.
// Here, there is no use of generic. So, there is no type safety.
// We can add both integer and string elements.
   List al = new ArrayList();

// Adding elements using add() method with reference variable al.
   al.add(10); // It will go at position 0.
   al.add(20); // It will go at position 1.
   al.add(30); // It will go at position 2.
   al.add(40); // It will go at position 3.
   al.add("Shubh"); // At position 4.

// Adding an element to 4th position.
   al.add(4, 35);
// Adding an element to 5th position.
   al.add(5, 45);

   System.out.println("Elements after adding: " +al);
 }
}
```

```
package listPrograms;
import java.util.ArrayList;
import java.util.List;
public class AddAllEx {
public static void main(String[] args)
{
// Create a list1 of only String type.
// This means that Compiler will give an error if we try to put any elements other tha
n String type.
   List<String> al = new ArrayList<String>();

// Adding elements in the list1.
   al.add("Apple");
   al.add("Mango");
   al.add("Orange");
   al.add("Grapes");
   System.out.println("List1 contain: " +al);
```

```
// Create another list2 of String type.
   List<String> al2 = new ArrayList<String>();
    al2.add("11");
    al2.add("12");
    al2.add("13");
  System.out.println("List2 contain :-"+al2);

// Adding list2 in list1 at 2nd position (i.e. index = 2) using addAll() method.
   al.addAll(2, al2);
   System.out.println("List1 after adding List2 at 2nd position: " +al);
  }
}
```

```
package listPrograms;
import java.util.ArrayList;
import java.util.List;
public class IndexOfEx {
public static void main(String[] args)
{
  List al = new ArrayList();
   al.add("AA");
   al.add("BB");
   al.add("CC");
   al.add("DD");
   al.add("EE");
   al.add("FF");

// To find the index of any particular element, use obj.indexOf(object o) method.
   System.out.println("Index of CC: " + al.indexOf("CC"));
   System.out.println("Index of FF: " + al.indexOf("FF"));
 }
}
```

```
package listPrograms;
import java.util.ArrayList;
import java.util.List;
public class GetMethodEx {
public static void main(String[] args)
{
// Creating a list.
   List al = new ArrayList();

// Adding elements in the list using reference variable al.
   al.add("pen");
   al.add("pencil");
   al.add("ink");
   al.add("notebook");
   al.add("book");
   al.add("paper");

// Now call get(int index) method to get elements from specified indices and print the
m.
```

```
    System.out.println("First Element: " +al.get(0));
    System.out.println("Fourth Element: " +al.get(3));
   }
}
```