Task-4
Lab questions :

1.Min and Max in a List in Java
Answer:

```
import java.util.ArrayList;
import java.util.Collections;
import java.util.List;

public class MinMaxInList {
    public static void main(String[] args) {
        List<Integer> numbers = new ArrayList<>();
        numbers.add(10);
        numbers.add(5);
        numbers.add(8);
        numbers.add(15);
        numbers.add(3);

        int min = Collections.min(numbers);
        int max = Collections.max(numbers);

        System.out.println("Minimum value: " + min);
        System.out.println("Maximum value: " + max);
    }}
```

Output:

```
Minimum value: 3
Maximum value: 15
```

2.Split a List into Two Halves in Java
Answer:

```
import java.util.ArrayList;
import java.util.List;

public class SplitList {
    public static void main(String[] args) {
        List<Integer> numbers = new ArrayList<>();
        numbers.add(1);
        numbers.add(2);
        numbers.add(3);
        numbers.add(4);
        numbers.add(5);
        numbers.add(6);

        int midpoint = numbers.size() / 2;

        List<Integer> firstHalf = numbers.subList(0, midpoint);
        List<Integer> secondHalf = numbers.subList(midpoint, numbers.size());
```

```
        System.out.println("First half: " + firstHalf);
        System.out.println("Second half: " + secondHalf);
    }
}
```

Output:

First half: [1, 2, 3]
Second half: [4, 5, 6]

3.Remove Duplicates from ArrayList in Java

Answer:

```
import java.util.ArrayList; import java.util.HashSet; import java.util.Ust;

public class RemoveDup (

public static void main(String[] args) ( List<Integer> numbers WithDuplicates new
ArrayList<>(); numbers With Duplicates.add(1); numbers With Duplicates.add(2);
numbersWith Duplicates.add(3): numbers With Duplicates.add(2); numbers With
Duplicates.add(4): numbers With Duplicates.add(3);

HashSet<Integer> uniqueNumbersSet = new HashSet(numbersWithDuplicates);
List<Integer> numbers Without Duplicates = new ArrayList(uniqueNumbersSet);

System.out.println("Original List with Duplicates: numbers WithDuplicates);
System.out.println("List without Duplicates:" numbers WithoutDuplicates);
}}
```

Output:

Original List with Duplicates: [1, 2, 3, 2, 4, 3)
List without Duplicates: [1, 2, 3, 4)

4.Add Element at First and Last Position of LinkedList in Java

Answer:

```
import java.util.LinkedList;

public class AddElement( public static void main(String[] args) (

LinkedList<String> linkedList = new LinkedList<>():

linkedList.add("Apple"); linkedList.add("Banana"); linkedList.add("Orange");

linkedList.addFirst("Grapes"); linkedList.addLast("Pineapple");

System.out.println("Final LinkedList:"linkedList);
```

Output:

Final LinkedList: (Grapes, Apple, Banana, Orange, Pineapple]