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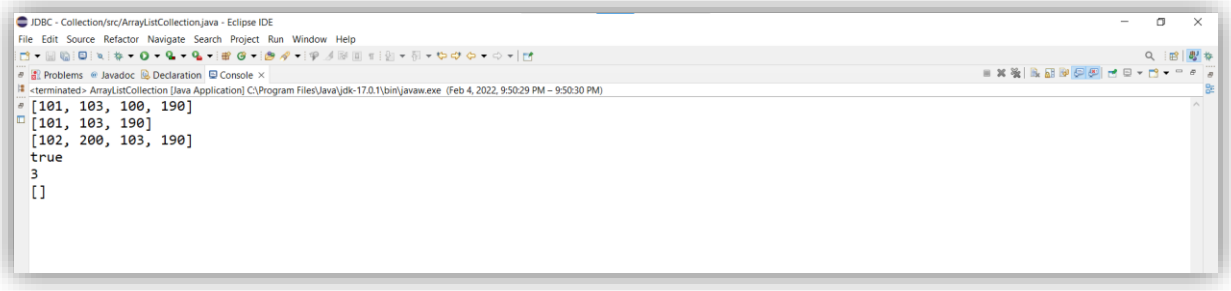
Collection Framework

1) Array List

```
import java.util.ArrayList;
import java.util.List;
        public class ArrayListCollection
                                        {
                                    public static void main(String[] args) {
                                        ArrayList<Integer>list =new ArrayList<Integer>();
                                        list.add(101);
                                        list.add(103);
                                        list.add(100);
                                        list.add(190);
                                        System.out.println(list);
                                        list.remove(2);
                                        System.out.println(list);
                                        list.add(1, 200);
                                        list.set(0, 102);
                                        System.out.println(list);
                                        System.out.println(list.contains(103));
                                        System.out.println(list.indexOf(190));
                                        list.clear();
                                        System.out.println(list);
                    }
}
```

Output:-



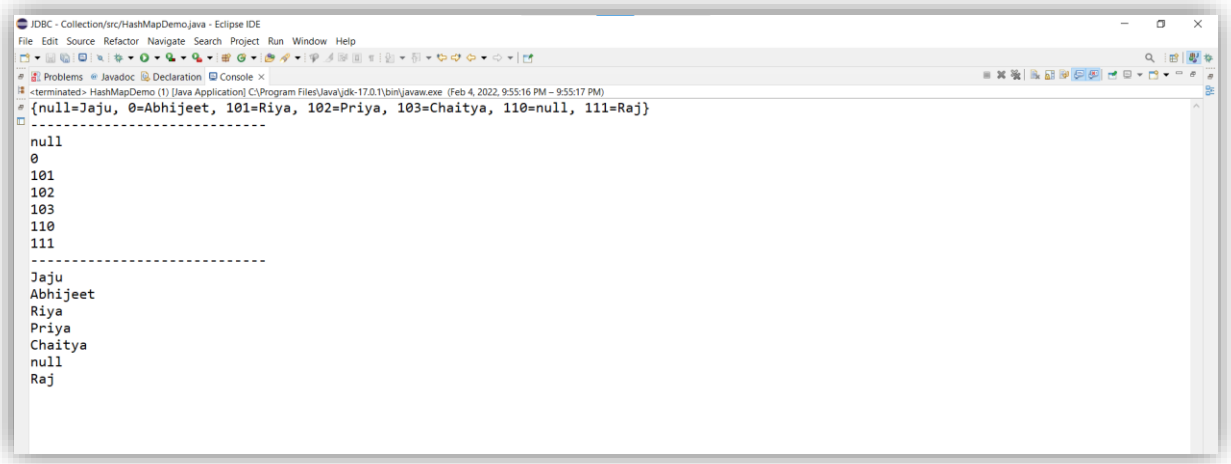
2) Hash Map

```
import java.util.Collection;
import java.util.HashMap;
import java.util.List;
import java.util.Set;
```

```
public class HashMapDemo {

		public static void main(String[] args) {
			HashMap<Integer, String>hm=new HashMap<Integer, String>();
			hm.put(101, "Raj");
			hm.put(102, "Priya");
			hm.put(103, "Chaitya");
			hm.put(110, null);
			hm.put(null, "Jaju");
			hm.put(0, "Abhijeet");
			hm.put(111, "Raj");
			hm.put(101, "Riya");
			System.out.println(hm);
			System.out.println("-----------------------------");
			Set<Integer> s=hm.keySet();
			for(Integer i:s) {
				System.out.println(i);
			}
			System.out.println("-----------------------------");
			Collection<String> li=hm.values();
			for(String s1:li) {
				System.out.println(s1);
			}
		}
}
```

Output:



3) Linked List

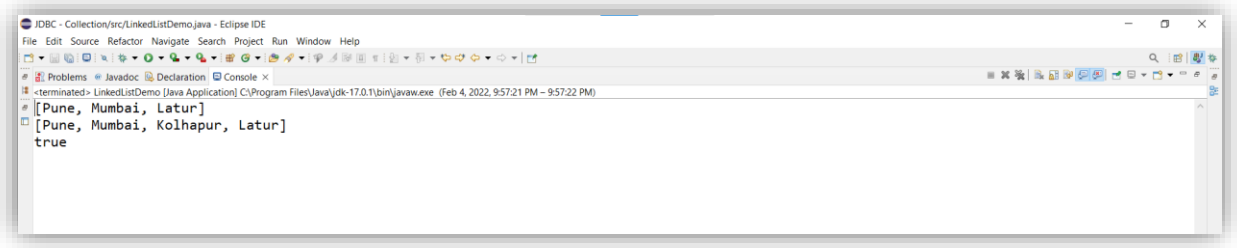
```
import java.util.LinkedList;
import java.util.List;

public class LinkedListDemo {

                public static void main(String[] args) {
                    LinkedList<String> list=new LinkedList<String>();
                    list.add("Pune");
                    list.add("Mumbai");
                    list.add("Latur");
                    System.out.println(list);
                    list.add(2,"Kolhapur");
                    System.out.println(list);
                    System.out.println(list.contains("Latur"));
                }

}
```

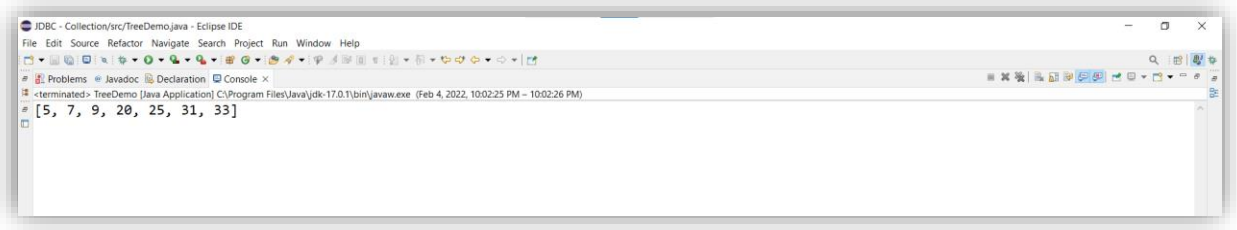
Output:-



4) Tree Set

```
import java.util.TreeSet;
 public class TreeDemo{
public static void main(String[] args) {
        TreeSet<Integer> tr=new TreeSet<Integer>();
        tr.add(7);
        tr.add(25);
        tr.add(33);
        tr.add(31);
        tr.add(5);
        tr.add(9);
        tr.add(5);
        tr.add(20);
        System.out.println(tr);
    }
}
```

Output:


JDBC - Collection/src/TreeDemo.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Problems Javadoc Declaration Console
<terminated> TreeDemo [Java Application] C:\Program Files\Java\jdk-17.0.1\bin\javaw.exe (Feb 4, 2022, 10:02:25 PM – 10:02:26 PM)
[5, 7, 9, 20, 25, 31, 33]