1) Program to create a new array list, add some colors(string) and print out the collection.

```
package collection;

import java.util.*;

public class PrintCollection {

	public static void main(String[] args) {
		List<String> color = new ArrayList<String>();
		color.add("Red");
		color.add("Blue");
		color.add("White");
		color.add("Pink");
		System.out.println("The colors are :" + color);
	}

}
```

---

2)Program to retrieve an element at a specified index from a given array list.

```
package collection;

import java.util.*;

public class RetrieveCollection {

	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		List<String> fruit = new ArrayList<String>();
		fruit.add("Mango");
		fruit.add("Grape");
		fruit.add("Pomegranate");
		fruit.add("Kiwi");
		fruit.add("Orange");

		System.out.println("Enter the index of the element to
retrieve : ");
		int index = sc.nextInt();

		try {
			System.out.println("The element at index " + index +
" is : " + fruit.get(index));
		} catch (IndexOutOfBoundsException i) {
```

```
                System.out.println("Invalid index.");
            }

      }

}
```

---

3) Program to iterate through all elements in an array list.

```
package collection;

import java.util.*;

public class IterateCollection {
      public static void main(String[] args) {
            List<String> mobile = new ArrayList<String>();
            mobile.add("OnePlus");
            mobile.add("Apple");
            mobile.add("Sony");
            mobile.add("Samsung");
            mobile.add("Oppo");

            System.out.println("Iterating through the array list. The
elements are :\n");
            for (String m : mobile) {
                  System.out.println(m);
            }
      }

}
```

---

4) Program to remove the third elment from an array list.

```
package collection;

import java.util.*;

public class RemoveElement {

      public static void main(String[] args) {
            List<Integer> number = new ArrayList<Integer>();
            number.add(100);
            number.add(200);
            number.add(300);
            number.add(400);
```

```
            number.add(500);

            System.out.println("The number list before removing third
element is :"+number+"\n");
            number.remove(2);
            System.out.println("The number list after removing third
element is :"+number);

      }

}
```

---

5) Program to search an element in an array list.

```
package collection;

import java.util.*;

public class SearchElement {

      public static void main(String[] args) {
            Scanner sc = new Scanner(System.in);
            List<Integer> number = new ArrayList<Integer>();
            number.add(100);
            number.add(200);
            number.add(300);
            number.add(400);
            number.add(500);

            System.out.println("Enter the element to search : ");
            int num = sc.nextInt();

            if (number.contains(num)) {
                  System.out.println("The number " + num + " is
present at index " + number.indexOf(num) + ".");
            } else
                  System.out.println("The number " + num + " is not
present.");

      }

}
```