```java
//TestArrayList.java

import java.util.ArrayList;
public class TestArrayList {

    public static void main(String[] args) {
        ArrayList<String> myNames = new ArrayList<>();
        myNames.add("Thomas");
        myNames.add("Jessica");
        myNames.add("Michael");
        myNames.add("Ted");
        // myNames.add(3); // gives you a compilation error

        System.out.println("Number of names is: " + myNames.size());
        System.out.println("The location of Jessica is: " +
myNames.indexOf("Jessica"));
        System.out.println("The location of Thomas is: " +
myNames.indexOf("Thomas"));

        System.out.println("Is Ted available in my list?");
        boolean flag = myNames.contains("Ted");

        if (flag == true)
            System.out.println("Yes. Ted is here");
        else
            System.out.println("No. Ted is not here");


        System.out.println("Items in my list before any changes:");
        System.out.println(myNames.toString());

        //Insert a new name at index 1
        myNames.add(1, "Alex");

        System.out.println("Items in my list after adding Alex:");
        System.out.println(myNames.toString());

        myNames.remove("Ted");
        System.out.println("Items in my list after removing Ted:");
        System.out.println(myNames.toString());


        // Printing the first location
        System.out.println(myNames.get(0));
        System.out.println(myNames.get(1));


        ArrayList<Integer> myIntegers = new ArrayList<>();
        myIntegers.add(10);
        myIntegers.add(20);
        myIntegers.add(6);
        myIntegers.add(3);

        System.out.println(myIntegers.get(0));
```

```java
ArrayList<Double> myDouble = new ArrayList<>();
myDouble.add(5.5);
myDouble.add(3.2);
Double doubleObject = myDouble.get(0);
double d = doubleObject;

System.out.println(d);

    }

}
```

```java
import java.util.*;

public class TestArrayList2 {
    public static void main(String[] args) {
        ArrayList<String> myNames = new ArrayList<>();
        myNames.add("Alex");
        myNames.add("Tom");
        myNames.add("Jessica");
        myNames.add("Michael");

        Iterator<String> iterator = myNames.iterator();
        while (iterator.hasNext()) {
        // System.out.print(iterator.next().toUpperCase() + " ");
          System.out.print(iterator.next() + " ");

        }
        System.out.println();
    }
}
```

```java
//TestVector.java
import java.util.*;
class TestVector{
    public static void main(String args[]){
        Vector<String> v=new Vector<String>();//creating vector
        v.add("Alex");//method of Collection
        v.add("Robert");//method of Collection
        v.addElement("Thomas");//method of Vector
        v.addElement("Bettina");
        v.addElement("Wiliam");

        Enumeration e=v.elements();

        int counter=0;
        while(e.hasMoreElements()){
            System.out.println(e.nextElement());
            ++counter;
        }

    }
}
```

```java
//TestLinkedList.java
import java.util.*;
public class TestLinkedList {

    public static void main(String[] args) {
        // create a linked list

        LinkedList<String> myLinkedList = new LinkedList<>();

        myLinkedList.add("Alex");
        myLinkedList.add("Jessica");
        myLinkedList.add("Aaron");
        myLinkedList.add("Dave");
        myLinkedList.add("Andrew");
        myLinkedList.addLast("Sam");
        myLinkedList.addFirst("Thomas");
        myLinkedList.add(1, "Aisha");
        System.out.println("myLinkedList: " + myLinkedList);



        myLinkedList.remove("Thomas");
        System.out.println("myLinkedList: " + myLinkedList);

        myLinkedList.remove(1);
        System.out.println("myLinkedList: " + myLinkedList);

        myLinkedList.removeFirst();
        System.out.println("myLinkedList: " + myLinkedList);


        myLinkedList.removeLast();
        System.out.println("myLinkedList: "
        + myLinkedList);

        myLinkedList.set(2, "Kal");
        System.out.println("myLinkedList: " + myLinkedList);

        Iterator<String> iterator = myLinkedList.iterator();

        while (iterator.hasNext()) {
                System.out.print(iterator.next() + " ");
        }
        System.out.println();

        System.out.println("myLinkedList: " + myLinkedList);
        Collections.shuffle(myLinkedList);
        System.out.println("myLinkedList: " + myLinkedList);

        Collections.shuffle(myLinkedList);
```

```java
            System.out.println("myLinkedList: " + myLinkedList);

            Collections.sort(myLinkedList);
            System.out.println("myLinkedList: " + myLinkedList);

            Collections.fill(myLinkedList, "Hello");
//          System.out.println("myLinkedList: " + myLinkedList);


        }

    }
```

```java
//TestQueue.java
// Java program to demonstrate working of Queue
// interface in Java
import java.util.*;

public class TestQueue
{
  public static void main(String[] args)
  {
    Queue<Integer> myQueue = new LinkedList<>();
    myQueue.add(1);
    myQueue.add(2);
    myQueue.add(3);
    myQueue.add(4);
    myQueue.add(5);
    myQueue.add(6);
    myQueue.add(7);


    System.out.println("I have the following in my queue: " + myQueue);

    int deleted_element = myQueue.remove();
    System.out.println("The removed entry is: " + deleted_element);

    System.out.println("The queue after removing the element:");
    System.out.println(myQueue);

    int head = myQueue.peek();
    System.out.println("The element at the head of queue is: " + head);

    int size = myQueue.size();
    System.out.println("The size of the queue is: " + size);
  }
}
```

```java
//Test_For_Each.java
import java.util.*;
public class Test_For_Each {

    public static void main(String[] args) {
        // TODO Auto-generated method stub


        ArrayList<String> myNames = new ArrayList<String>();

        // Adding player names
        myNames.add("Tom");
        myNames.add("Jessica");
        myNames.add("Alex");
        myNames.add("Nicole");


        System.out.println("The list of names:");

        for (String person_name : myNames) {
          System.out.println(person_name);
        }


    }

}
```

```java
import java.util.*;
public class TestHashMaps {

    public static void main(String[] args) {
        HashMap<String, Integer> idBook = new HashMap<String, Integer>();

        idBook.put("Alex", 98871);
        idBook.put("Jessica", 78233);
        idBook.put("Luna", 98891);
        idBook.put("Luna", 98343);

        System.out.print("The ID of Luna is: " + idBook.get("Luna"));
        System.out.println("The contents of the HashMap are: ");
        System.out.println(idBook);

        idBook.put("Luna", 55555);
        System.out.println("The contents of the HashMap are: ");
        System.out.println(idBook);

    }

}
```

```java
import java.util.*;
public class TestDeque {
    public static void main(String[] args) {
        Deque<String> books = new LinkedList<String>();

        books.addFirst("Java Programming");
        books.addFirst("C++ Language");
        books.addFirst("Getting started with Python");
        books.addFirst("Database systems");


        System.out.println("Books in the stack: ");
        System.out.println("First: " + books.removeFirst());
        System.out.println("Second: " + books.removeFirst());
        System.out.println("Third: " + books.removeFirst());
        System.out.println("Forth: " + books.removeFirst());


    }

}
```