1. Implement Array list elements:

```java
package demo_one;

import java.util.ArrayList;

public class Main {

public static void main(String[] args) {
// TODO Auto-generated method stub
// create ArrayList
ArrayList<String> languages = new ArrayList<>();

// Add elements to ArrayList
languages.add("Java");
languages.add("Python");
languages.add("Swift");
System.out.println("ArrayList: " + languages);
}
        }
```

Output: ArrayList: [Java, Python, Swift]

Add Elements to an ArrayList:

```java
package demo_one;

import java.util.ArrayList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        // create ArrayList
      ArrayList<String> languages = new ArrayList<>();

      // add() method without the index parameter
      languages.add("Java");
      languages.add("C");
      languages.add("Python");
      System.out.println("ArrayList: " + languages);

      // add() method with the index parameter
      languages.add(1, "JavaScript");
      System.out.println("Updated ArrayList: " + languages);
    }
  }
```

Output :   ArrayList: [Java, C, Python]
        Updated ArrayList: [Java, JavaScript, C, Python]

Access ArrayList Elements:

```java
package demo_one;

import java.util.ArrayList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        ArrayList<String> animals = new ArrayList<>();

        // add elements in the arraylist
        animals.add("Cat");
        animals.add("Dog");
        animals.add("Cow");
        System.out.println("ArrayList: " + animals);

        // get the element from the arraylist
        String str = animals.get(1);
        System.out.print("Element at index 1: " + str);
    }

}
```

Output: ArrayList: [Cat, Dog, Cow]
        Element at index 1: Dog

Change ArrayList Elements:

```java
package demo_one;

import java.util.ArrayList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        ArrayList<String> languages = new ArrayList<>();

        // add elements in the array list
        languages.add("Java");
        languages.add("Kotlin");
        languages.add("C++");
        System.out.println("ArrayList: " + languages);

        // change the element of the array list
        languages.set(2, "JavaScript");
        System.out.println("Modified ArrayList: " + languages);
    }

}
```

Output: ArrayList: [Java, Kotlin, C++]
        Modified ArrayList: [Java, Kotlin, JavaScript]

Remove ArrayList Elements:

```java
package demo_one;

import java.util.ArrayList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        ArrayList<String> animals = new ArrayList<>();

        // add elements in the array list
        animals.add("Dog");
        animals.add("Cat");
        animals.add("Horse");
        System.out.println("ArrayList: " + animals);

        // aemove element from index 2
        String str = animals.remove(2);
        System.out.println("Updated ArrayList: " + animals);
        System.out.println("Removed Element: " + str);
    }

}
```

Output: Updated ArrayList: [Dog, Cat]
Removed Element: Horse

Iterate through an ArrayList:

```java
package demo_one;

import java.util.ArrayList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        // creating an array list
        ArrayList<String> animals = new ArrayList<>();
        animals.add("Cow");
        animals.add("Cat");
        animals.add("Dog");
        System.out.println("ArrayList: " + animals);

        // iterate using for-each loop
        System.out.println("Accessing individual elements:  ");

        for (String language : animals) {
            System.out.print(language);
            System.out.print(", ");
        }
    }
}
```

Output: ArrayList: [Cow, Cat, Dog]
Accessing individual elements:
Cow, Cat, Dog,

2.Perform multiple actions on link list collection:

```java
package demo_one;

import java.util.LinkedList;

public class Main {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		 // create linkedlist
		LinkedList<String> animals = new LinkedList<>();

		// Add elements to LinkedList
		animals.add("Dog");
		animals.add("Cat");
		animals.add("Cow");
		System.out.println("LinkedList: " + animals);
	}
}
```

Output: LinkedList: [Dog, Cat, Cow]

Add elements to a LinkedList:

```java
package demo_one;

import java.util.LinkedList;

public class Main {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		// create linkedlist
		LinkedList<String> animals = new LinkedList<>();

		// add() method without the index parameter
		animals.add("Dog");
		animals.add("Cat");
		animals.add("Cow");
		System.out.println("LinkedList: " + animals);

		// add() method with the index parameter
		animals.add(1, "Horse");
		System.out.println("Updated LinkedList: " + animals);
	}

}
```

Output: LinkedList: [Dog, Cat, Cow]
        Updated LinkedList: [Dog, Horse, Cat, Cow]

Access LinkedList elements:

```java
package demo_one;

import java.util.LinkedList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        LinkedList<String> languages = new LinkedList<>();

        // add elements in the linked list
        languages.add("Python");
        languages.add("Java");
        languages.add("JavaScript");
        System.out.println("LinkedList: " + languages);

        // get the element from the linked list
        String str = languages.get(1);
        System.out.print("Element at index 1: " + str);
    }
}
```

Output: LinkedList: [Python, Java, JavaScript]
        Element at index 1: Java

Change Elements of a LinkedList:

```java
package demo_one;

import java.util.LinkedList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        LinkedList<String> languages = new LinkedList<>();

        // add elements in the linked list
        languages.add("Java");
        languages.add("Python");
        languages.add("JavaScript");
        languages.add("Java");
        System.out.println("LinkedList: " + languages);

        // change elements at index 3
        languages.set(3, "Kotlin");
        System.out.println("Updated LinkedList: " + languages);
    }
}
```

Output: LinkedList: [Java, Python, JavaScript, Java]
        Updated LinkedList: [Java, Python, JavaScript, Kotlin]

Remove element from a LinkedList:

```java
package demo_one;

import java.util.LinkedList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        LinkedList<String> languages = new LinkedList<>();

        // add elements in LinkedList
        languages.add("Java");
        languages.add("Python");
        languages.add("JavaScript");
        languages.add("Kotlin");
        System.out.println("LinkedList: " + languages);

        // remove elements from index 1
        String str = languages.remove(1);
        System.out.println("Removed Element: " + str);

        System.out.println("Updated LinkedList: " + languages);
    }
}
```

Output: Removed Element: Python
Updated LinkedList: [Java, JavaScript, Kotlin]

Iterating through LinkedList:

```java
package demo_one;

import java.util.LinkedList;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        LinkedList<String> animals = new LinkedList<>();

        animals.add("Cow");
        animals.add("Cat");
        animals.add("Dog");
        System.out.println("LinkedList: " + animals);

        // Using forEach loop
        System.out.println("Accessing linked list elements:");
        for(String animal: animals) {
            System.out.print(animal);
            System.out.print(", ");
```

```
        }
    }
}
```

Output: LinkedList: [Cow, Cat, Dog]
          Accessing linked list elements:
          Cow, Cat, Dog,

3.Use priority queue implementation:

```java
package demo_one;

import java.util.PriorityQueue;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        // Creating a priority queue
        PriorityQueue<Integer> numbers = new PriorityQueue<>();

        // Using the add() method
        numbers.add(4);
        numbers.add(2);
        System.out.println("PriorityQueue: " + numbers);

        // Using the offer() method
        numbers.offer(1);
        System.out.println("Updated PriorityQueue: " + numbers);
    }

}
```

Output: PriorityQueue: [2, 4]
          Updated PriorityQueue: [1, 4, 2]

Access PriorityQueue Elements:

```java
package demo_one;

import java.util.PriorityQueue;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        // Creating a priority queue
        PriorityQueue<Integer> numbers = new PriorityQueue<>();
        numbers.add(4);
        numbers.add(2);
        numbers.add(1);
```

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

        // Using the peek() method
        int number = numbers.peek();
        System.out.println("Accessed Element: " + number);
    }
}
```

Output: PriorityQueue: [1, 4, 2]
          Accessed Element: 1

Remove PriorityQueue Elements:

```java
package demo_one;

import java.util.PriorityQueue;

public class Main {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        // Creating a priority queue
        PriorityQueue<Integer> numbers = new PriorityQueue<>();
        numbers.add(4);
        numbers.add(2);
        numbers.add(1);
        System.out.println("PriorityQueue: " + numbers);

        // Using the remove() method
        boolean result = numbers.remove(2);
        System.out.println("Is the element 2 removed? " + result);

        // Using the poll() method
        int number = numbers.poll();
        System.out.println("Removed Element Using poll(): " + number);
    }
}
```

Output: Is the element 2 removed? true
          Removed Element Using poll(): 1

Iterating Over a PriorityQueue:

```java
package demo_one;

import java.util.PriorityQueue;
import java.util.Iterator;

public class Main {

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

        // Creating a priority queue
        PriorityQueue<Integer> numbers = new PriorityQueue<>();
```

```
            numbers.add(4);
            numbers.add(2);
            numbers.add(1);
            System.out.print("PriorityQueue using iterator(): ");

            //Using the iterator() method
            Iterator<Integer> iterate = numbers.iterator();
            while(iterate.hasNext()) {
                System.out.print(iterate.next());
                System.out.print(", ");
            }
        }
    }
}
```

Output: PriorityQueue using iterator(): 1, 4, 2,

PriorityQueue Comparator:

```
package demo_one;

import java.util.PriorityQueue;
import java.util.Comparator;

public class Main {

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

            // Creating a priority queue
        PriorityQueue<Integer> numbers = new PriorityQueue<>(new
CustomComparator());
        numbers.add(4);
        numbers.add(2);
        numbers.add(1);
        numbers.add(3);
        System.out.print("PriorityQueue: " + numbers);
    }
}

class CustomComparator implements Comparator<Integer> {

    @Override
    public int compare(Integer number1, Integer number2) {
        int value =  number1.compareTo(number2);
        // elements are sorted in reverse order
        if (value > 0) {
            return -1;
        }
        else if (value < 0) {
            return 1;
        }
        else {
            return 0;
        }
    }
}
```

Output: PriorityQueue: [4, 3, 1, 2]