Lab Assignment – 24

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1)Read and store 'n' no. of elements to an arraylist using stream API, and display the same to user. From the above list filter and display only positive numbers.

```java
package com.wrapperclass.examples;

import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;
import java.util.stream.Collectors;

public class PositiveNumbers {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Read 'n' elements from the user
        System.out.print("Enter the number of elements: ");
        int n = scanner.nextInt();

        List<Integer> numbers = new ArrayList<>();

        System.out.println("Enter " + n + " elements:");
        for (int i = 0; i < n; i++) {
            System.out.print("Element " + (i + 1) + ": ");
            numbers.add(scanner.nextInt());
        }

        // Display the original list
        System.out.println("Original list: " + numbers);

        // Use Stream API to filter and display only positive numbers
```

```
        List<Integer> positiveNumbers =
numbers.stream()
                .filter(num -> num > 0)
                .collect(Collectors.toList());

        // Display the list of positive numbers
        System.out.println("Positive numbers: " +
positiveNumbers);
    }

}
```

Output:

```
 1 package com.wrapperclass.examples;
 2
 3⊖import java.util.ArrayList;
 4 import java.util.List;
 5 import java.util.Scanner;
 6 import java.util.stream.Collectors;
 7
 8 public class PositiveNumbers {
 9⊖    public static void main(String[] args) {
10        Scanner scanner = new Scanner(System.in);
11
12        // Read 'n' elements from the user
13        System.out.print("Enter the number of elements: ");
14        int n = scanner.nextInt();
15
16        List<Integer> numbers = new ArrayList<>();
17
18        System.out.println("Enter " + n + " elements:");
```

Problems @ Javadoc Declaration Console × Coverage
<terminated> PositiveNumbers [Java Application] C:\Users\USER\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_19.0.2.v20230129-1123\jre\bin\javaw.exe

```
Enter the number of elements: 5
Enter 5 elements:
Element 1: 2
Element 2: 5
Element 3: -6
Element 4: 1
Element 5: 8
Original list: [2, 5, -6, 1, 8]
Positive numbers: [2, 5, 1, 8]
```