

3. Write a program in Java to find the sum of n number of elements in the range of L and R where $0 \leq L \leq R \leq n-1$

```
import java.util.Scanner;

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

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

        // Read the range
        System.out.print("Enter the starting index (L): ");
        int L = scanner.nextInt();

        System.out.print("Enter the ending index (R): ");
        int R = scanner.nextInt();

        // Validate the range
        if (L < 0 || R >= n || L > R) {
            System.out.println("Invalid range!");
            return;
        }

        // Read the elements
        int[] array = new int[n];
        System.out.println("Enter the elements:");
        for (int i = 0; i < n; i++) {
            array[i] = scanner.nextInt();
        }
    }
}
```

```
// Calculate the sum

int sum = 0;
for (int i = L; i <= R; i++) {
    sum += array[i];
}

System.out.println("The sum of elements in the range [" + L + ", " + R + "] is: " + sum);
}
}
```