

```
import java.util.ArrayList;
import java.util.List;
import java.util.Scanner;

public class IntegerSumCalculator {

    public static void main(String[] args) {
        List<Integer> numbers = new ArrayList<>();
        Scanner scanner = new Scanner(System.in);

        System.out.println("Enter integers (one per line). Enter a non-integer to finish:");

        while (scanner.hasNextLine()) {
            String input = scanner.nextLine().trim();
            try {
                int number = parseInteger(input);
                numbers.add(number); // Autoboxing: int to Integer
            } catch (NumberFormatException e) {
                break;
            }
        }

        scanner.close();

        int sum = calculateSum(numbers);
        System.out.println("The sum of the integers is: " + sum);
    }

    public static int parseInteger(String str) throws NumberFormatException {
        return Integer.parseInt(str);
    }

    public static int calculateSum(List<Integer> numbers) {
        int sum = 0;
        for (Integer num : numbers) {
            sum += num; // Unboxing: Integer to int
        }
        return sum;
    }
}
```