**Lab 3:**

**Grade: 2%**

**Submission instructions:** Submit your Java files and labeled screenshots separately to D2L. Use the same input as the sample screenshot to test your program, and ensure your screenshots are labeled accordingly. Include comments in your code to explain the logic and keep your submission organized for accurate evaluation.

**Objective:**

The purpose of this lab is to practice using Operators in Java and to handle input/output operations using the Scanner class.

Q1 (50 Points) Write a Java program that performs the following tasks:

* + Given an integer, print its **last digit**.
  + For the same integer, print its **last two digits**.

You are required to write the logic for both tasks separately. Ensure that your program handles both positive and negative integers.

**Instructions:**

* The program should prompt the user to enter a single integer.
* The program should first calculate and print the last digit of the integer.
* Then, the program should calculate and print the last two digits of the integer.
* If the integer is a single-digit number, pad it with a ‘0’ when printing the last two digits (e.g., for 7, print 07 Sample Run 1:

Enter an integer: 12345

Last digit: 5

Last two digits: 45

Sample Run 2:

Enter an integer: -123456

Last digit: 6

Last two digits: 56

Sample Run 3:

Enter an integer: 1

Last digit: 1

Last two digits: 01

Q2 (50 Points) Write a Java program that takes a **three-digit integer** as input and calculates the sum of its digits. The program should be able to handle both positive and negative three-digit numbers.

**Instructions:**

* The program should prompt the user to input a three-digit integer.
* Use arithmetic operations (modulo % and division /) to extract individual digits.
* Use Math.abs() to handle negative numbers for summing digits
* Calculate the sum of the digits of the number (ignore the negative sign if the number is negative).

Sample Run 1:

Enter a three-digit number:

-123

Sum of digits: 6

Sample Run 2:

Enter a three-digit number:

456

Sum of digits: 15