Assignment: Loop review

Type: Classwork

1. Write a program, DigitSum.java, that prompts the user to input an integer and then uses a while loop to output both the individual digits of the number and the sum of the digits.

   For example, the program should output the individual digits of 3456 as 3 4 5 6 and the sum as 18; output the individual digits of 8030 as 8 0 3 0 and the sum as 11; output the individual digits of 2344526 as 2 3 4 4 5 2 6 and the sum as 26; output the individual digits of 4000 as 4 0 0 0 and the sum as 4; and out put the individual digits of -2345 as 2 3 4 5 and the sum as 14.

2. Redo your program using a for loop. This time, name the class DigitSumFor.

3. Redo your program using a do…while loop. This time, the class name should be DigitSumDo.

4. Your X2 submission should include all three programs. Please only submit the .java files, DigitSum.java, DigitSumFor.java, and DigitSumDo.java.