

LAB NR. 11

OO PROGRAMMING

January 11, 2024

Problem 1:

Write a Generic Class that adds two numbers of different data types (**Integer**, **Double**, **Long**) and test it using your own examples.

Problem 2:

Write a Generic Class, that performs bubble sorting for an array, whose elements extend **Comparable** class. Test it for sorting an array of **Integer**, **Double** and **String** data types.

Problem 3:

Modify your solution to Problem 2, introducing your own fancy **compare** method. This method should compare the **String** data types taking into account the total number of characters; **Integer** data types taking into account the total number of non-zero digits, and **Double** data types taking into the significand (the mantissa) of the number.

Problem 4:

Use Upper Bounded Wildcard to sum all elements of the list of elements, which the extend **Number** class. Test it using your own examples for different data types.