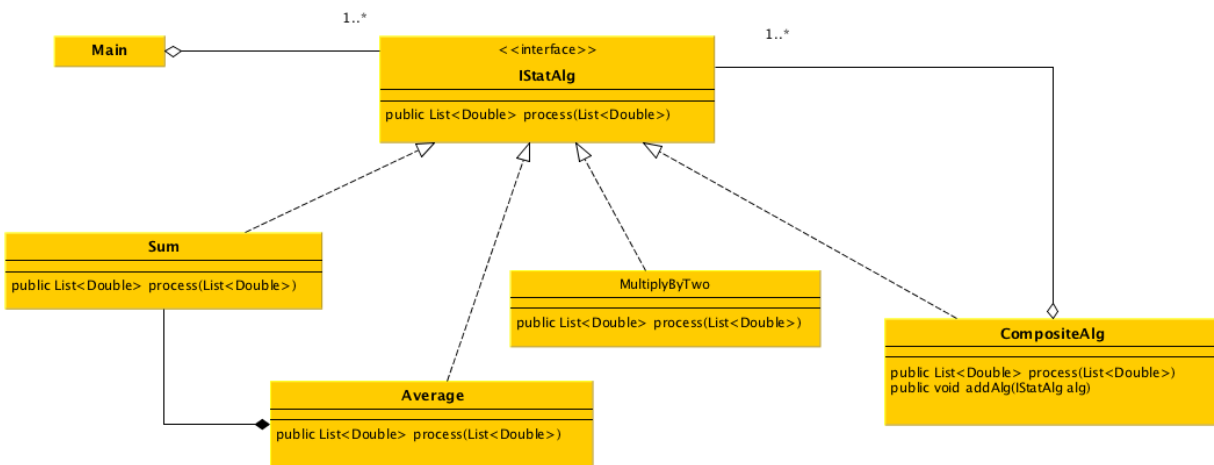


## Part I

Your job is to create a library of statistical algorithms that can be used to analyze large datasets. Each algorithm will receive a list of numbers, perform an operation on it, and then return a list with the results of the operation. The library should support the following algorithms:

- Calculate the sum of a list of numbers
- Multiple each number in a list by 2
- Calculate the average of a list of numbers
- Perform a series of any of the previous three algorithms, in a particular order, on a single list

The following is a design for this library illustrated using UML:



Implement this design using Java. Be sure to create a main method that test your code thoroughly.