

Sure, here is a detailed problem statement for a Java coding test:

Problem Statement:

You have been hired as a developer to create a program that can perform basic operations on a collection of integers. Your task is to create a Java program that implements the following requirements:

1. The program must take input from the user in the form of a list of integers.
2. The program must be able to add, remove, and search for integers in the list.
3. The program must display the list of integers after each operation is performed.
4. The program must also be able to sort the list of integers in ascending or descending order.
5. The program must be able to find the sum, average, and maximum and minimum values of the list of integers.

You need to implement the following methods:

1. **addToList(int n)** - This method should add the given integer to the list of integers.
2. **removeFromList(int n)** - This method should remove the given integer from the list of integers.
3. **searchInList(int n)** - This method should search for the given integer in the list of integers and return its index, or return -1 if the integer is not found.
4. **sortList(boolean isAscending)** - This method should sort the list of integers in either ascending or descending order, depending on the value of the **isAscending** parameter.
5. **getSum()** - This method should return the sum of all the integers in the list.
6. **getAverage()** - This method should return the average of all the integers in the list.
7. **getMaximum()** - This method should return the maximum integer in the list.
8. **getMinimum()** - This method should return the minimum integer in the list.

You can use any data structure to store the list of integers, but it must be able to perform the above operations efficiently.

Your Java program should have a main method that takes user input and calls the above methods to perform the required operations on the list of integers. The program should display the updated list of integers after each operation is performed.