

CSC 2310: PRINCIPLES OF COMPUTER PROGRAMMING

Lab 1

How to Submit

Please submit your answers to the lab instructor once you have completed.

Failure to submit will result in a **ZERO FOR THIS LAB. NO EXCEPTIONS.**

Write a Java program that asks the user to enter an array of integers in the main method. The program should prompt the user for the number of elements in the array and then the elements of the array. The program should then call a method named `minGap` that accepts the array entered by the user as a parameter and returns the minimum 'gap' between adjacent values in the array. The main method should then print the value returned by the method. The gap between two adjacent values in an array is defined as the difference in value between the first element and the second element.

For example, suppose the user entered the following array of integers

```
{1, 3, 6, 5, 12}
```

The first gap is 2 (3 - 1), the second gap is 3 (6 - 3), the third gap is 1 (6 - 5) and the fourth gap is 5 (12 - 6). Thus, the call of `minGap(array)` should return 1 because that is the smallest gap in the array. If you are passed an array with fewer than 2 elements, you should return 0.