CSCI-101 Programming I
Exam 2

Instructions

If you are on campus, please write your answers on the lined paper that has been provided. If you are remote, please write your answers in an email addressed to me and send me the email when you have completed the exam.

This exam will ask you to write a complete program. Write your solution to this exam as if you were typing out the source code in a .java file. You are not allowed to use any resources including notes, books, or online resources.

Program Specifications

The class name is **Exam2**.

The class has a method named **printName** that has no parameters and simply prints your name to the console.

The class has a method named **printMax** that has two integer parameters and prints to the console the larger value held in the two parameters.

The class has a method named **getMin** that has two integer parameters and returns the smaller value held in the two parameters.

The class has a method named **isIncreasing** that has two integer parameters. The method returns **true** if the value in the second parameter is larger than the value in the first parameter; otherwise it returns **false**.

The class has a method named **printSequence** that has one parameter. If the value in the parameter is greater than **0** then the method prints the integers between **0** and the value held in the parameter. If the value in the parameter is less than or equal to **0**, nothing is printed.

The class has a method named **printArray** that takes an array of integers as an argument and prints the contents of the array to the console with a space between each element.

The class has a method named **getMin** that takes an array of integers as an argument and returns the smallest value in the array.

The class has a method named **numElements** that has 2 parameters. The first parameter is an array of integers and the second parameter is an integer. The method returns the number of instances of the value in the second parameter that exist in the array.

The class has a method named **isSorted** that takes an array of integers as an argument and returns **true** of the elements in the array are in the array in sorted order. Otherwise it returns **false.**

The class has a method named **main** that includes the following.

- The method prints your name to the console by calling the method **printName**.
- A variable named **num1** is declared and is initialized with a value read from the keyboard.
- A variable named **num2** is declared and is initialized with a value read from the keyboard.
- Print to the console the larger of the values held in **num1** and **num2** by calling printMax.
- A variable named **min** is declared and set to the smaller value held in **num1** and **num2** by using the method **getMin**.
- A variable named **ordered** is declared and is initialized to the value returned by **isIncreasing** when passed **num1** and **num2**.
- The numbers between **0** and **num1** are printed to the console by calling **printSequence**.
- An array of integers named **arr1** is declared and initialized with the values **3**,**5**,**1**,**5**, and **4**.
- The contents of **arr1** is printed to the console by calling **printArray**.
- A variable named **min** is declared and set to the smallest number in **arr1** by using the method **getMin**.
- A variable named **numFives** is declared and initialized using **numElements**. The value of **numFives** should equal to the number of times the value **5** appears in **arr1**.
- A variable named **sorted** is declared and set to **true** (using **isSorted**) if **arr1** is in increasing order and set to **false** is **arr1** is not in increasing order.