Lab4

This will be an extension of Lab 3. You will be benchmarking your insertion, selection, and bubble sort algorithms from last week.  You will implement the following:

* Function to determine if an array is sorted or not. For ascending and descending order
* Function to populate arrays with random values
* Benchmark the 3 sorting algorithms with the following guidelines
  + Test with array sizes n= 100, 1,000. 10,000, and 100,000
  + Use different types of arrays. random values, sorted, semi sorted
  + Use multiple runs of the same setup(Same algorithm, size, and type of array
* Use chrono library to time running of algorithms and output to a file.
* Import your data into Excel or Google sheets
* Write a report including bar plots with mean times across runs, and standard deviation across runs for the different algorithms and input sizes.

Output to a text file or word doc something.

Example 