

Programming Assignment 1 - Logarithmic Running Time

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Due Apr 25 by 11:59pm **Points** 100 **Submitting** a file upload
File Types java and cs **Available** Apr 14 at 6pm - Jun 18 at 11:59pm 2 months

Introduction

For this assignment you will add a recursive binary search algorithm to the existing starter code provided in Canvas. Once you get your code running, you will use it to compare the growth rate of a linear search vs. a binary search algorithm for data sets of increasing sizes.

Add your code to locations in `LwtSearch.java`, and `SearchExamples.java` that are marked with a single line comment (`"/"`) delimiter followed by the string `"TODO"`. You may add methods and fields to this class, but do not change the signature or return type of `LwtSearch.linearSearch` or `LwtSearch.binarySearch`.

The Output

Create a Java project named `Searching`, using the starter files. Before you add any code, run the project and notice the format of the output. The output from your binary search method should follow the same pattern.

Upload The Java Files

When you are finished with the assignment, upload the `.java` files only. Do not upload the entire project, or any other files in it. Just the `.java` files.

Notice that this assignment has a Rubric.

CSD 235/335

Criteria	Ratings	Pts
Meet all of the requirements The program meets all of the requirements of the problem statement(s). The software that is submitted compiles without error, and runs without throwing any exceptions.		70.0 pts
The source code is formatted consistently and is well commented. Each file submitted has a block comment at the top of the file that includes the author's name, the class ID, assignment number, and a brief description of the contents of the file. Functional blocks of code have a block comment at the beginning.		15.0 pts
the code has been tested There are sufficient number of tests to verify that the program meets the requirements of the assignment.		15.0 pts
Total Points: 100.0		