

## lab 04 Performance Analysis

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**Instructions:** In this lab we will empirically deduce the runtime performance of given functions. Inside of `src/main.cpp` you will see 5 functions (problem1, problem2, problem3, problem4, and problem5). For each of the functions:

1. **Empirically** generate a performance graph (via gnuplot) for each function. These may be separate files or all in one file. Make sure it is obvious which plot is which.
2. Determine the **theoretical** Big O of each function. Write ALL Big-O answers in one file.

**How to turn in:**

Turn in via GitHub. Ensure the file(s) are in your directory and then:

- `$ git add <files>`
- `$ git commit`
- `$ git push`

**Due Date:** September 07, 2020 2359

**Teamwork:** No teamwork, your work must be your own.