

## lab 04 Performance Analysis

---

**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 11, 2019 2359

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