CSCI-1200 Data Structures — Fall 2021
Lab 9 — Maps

This lab gives you practice initial practice in working with the STL associative container, maps. No downloads are needed until Checkpoint 3.

Checkpoint 1   *estimate: 10-20 minutes*

Write a program from scratch that uses a `map` to find **all** the modes in an input sequence of integers. Remember, a mode is an integer that occurs at least as many times in the sequence as any other integer. Thus, in the sequence:

```
19  83  -12  83  65  19  45  -12  45  19  45
```

the two modes are 19 and 45. Include one command-line argument to provide an input file. Use `operator[]` for maps when inserting values.

To complete this checkpoint: show a TA your debugged implementation and how it runs correctly on several interesting test cases.

Checkpoint 2   *estimate: 10-20 minutes*

Rewrite your program from checkpoint 1 to use `find` or `insert` or both instead of `operator[]`.

To complete this checkpoint: show a TA your revised and tested program.

Checkpoint 3

Checkpoint 3 will be available for download from the Submitty
Course Materials page at the start of Wednesday's lab:

https://submitty.cs.rpi.edu/courses/f21/csci1200/course_materials