# CS 211 – Data Structures
# Lab for Week #03

For this lab exercise, you will work individually.  In <u>future</u> labs, you will work either individually or in 2-person teams.  Also, **for this lab only**, **it will be posted a week early and is due at the end of the lab period of Week 03**.  That's so if you hit technical issues in setting up CS50 or in compiling the C++ code supplied to complete the lab, you'll have time to address those issues.

**You should use the CS50 IDE** to ensure proper compilation and execution in that environment.  You may **also** use your own IDE to compile and test the C++ code to ensure the IDE is up to performing the functions necessary to complete labs and assignments.

## *Lab Exercise*

We are simply going to take a look at some C++ code written in a way that students who have completed CS 112 should be able to read and interpret, and then make sure your IDE is up and working OK for compiling the C++ code.  This will be a **very brief** lab today, one that's designed to see whether the computing environment you're using (whether it's the lab workstation, vLab, or your own laptop) is appropriately configured.

- In the Canvas lab page, you'll find links to the files **Bag.cpp**, **main.cpp** and **Bag.h** – download those files, and place the contents of those files into the appropriate places in the IDE(s) for C++ and H files.  There should be NO NEED to modify the files' contents, except as outlined below.

- At the top of **each** file, document your module as follows filling in your own name):

  ```
  // CS 211 Fall 2024 – Week 03 Lab
  // <Student_Name(s)>
  ```

  Substitute your own name(s) for the **Student_Name(s)** placeholders above.

- **Analyze the C++ code supplied**, and determine what the properties of the Object Class are – what is the ADT (Abstract Data Type) "Bag" designed to do?  Take this opportunity to ensure you understand all the syntax and features of C++ used here – **we will assume this level of familiarity with C++ syntax and features from all students going forward!  You are free to discuss these issues with others in the lab this week.**

- Compile and execute the code, and ensure that the tests in **main()** come back all **true**.

  **ONCE FINISHED, ALL STUDENTS SHOULD SUBMIT ALL THE C++ AND H FILES VIA CANVAS.**
  **Submit ALL the C++ files and the H file using the "multiple file submission" feature of Canvas.**
  **Do NOT submit the C++ and the H files separately!  And do not zip the files together!**