

**University of Pittsburgh**  
**Department of Electrical and Computer Engineering**  
**ECE 0302: Data Structures and Algorithms**

**In-Class Exercise 1: ADT Bag Class**

Instructions: Create the implementation of the template bag class. The bag interface is defined in bag.hpp and the implementation should be added to bag.tpp. make sure **not to change the names** of any of the pre-defined methods. bag\_tests.cpp has some test cases already given to you. You also need to write as many test cases as you can to thoroughly test and check your class implementation.

1. Download the starter code.
2. Extract the zipped file in a directory.
3. Navigate to this directory then open it in a terminal (right click in empty space -> open in terminal). Type in the following command:

- cmake .
- make
- ./bag-tests

The files are designed to just build and run out of the box. But there is no class implementation, so if you tried to write an actual test, it should fail. That's why you need to implement it. Each time you modify your code, you need to run make, followed by the executable (the last two commands above). When you have completed the assignment, generate a zip file that contains all the bag class implementation files (i.e. zip the whole working folder):

Submission: submit a zipped folder to Canvas.