

CS231 Data Structures

Homework 05 Stack

C++ Plus Data Structures 6/e

[Homework Section on Moodle](#)

Homework 05 - Stack

- Download, read, and **carefully** follow the instructions attached to this assignment.
- The test driver and some other scaffolding are provided in the .zip file attached to this assignment.

Assignment

Deliver a working linked-list implementation of the Stack Data Structure.

You must give proper acknowledgement of your sources and demonstrate an understanding of any code you reuse by adding appropriate comments.

Requirements

Your implementation must be based on the project folder "scaffolding" for this assignment from your instructor. You may not change the Stack.hpp file without previous permission from your instructor.

You must implement an automated regression test in the given main-test.cpp file. This test should clearly identify all of the test cases covered by your test. The test program must automatically check for the correct results or, at minimum, clearly output the results of the test by using the ToString() methods.

Your implementation must compile, run, and pass your automated regression test.

Grading Rubric

We plan to review the complete solution in detail on Friday, Oct 26, so your work **MUST** be submitted by the datetime deadline. Late work will NOT be accepted.

Grade	Criteria
Zero	no work submitted
D-	work does not demonstrate sufficient effort
C	Test program compiles, runs, and does not crash.
C+ to B+	Some cases are tested and pass.
A-	Class is thoroughly tested and all test cases run without error.
A	Stack class code and comments are excellent: well structured, well documented, easy to read and understand, and demonstrate your thorough understanding of the implementation

Submitting Your Work

Submit a well structured project folder that is structured and organized exactly as shown below. This should match what we have done for previous project homework.

```
StackLinkedList
  appl
    ItemType.cpp
    ItemType.hpp
    main-test.cpp
  lib
    Stack.cpp
    Stack.hpp
  Makefile
```

- Compress these two folders into a single .zip file.
- You must "make clean" each project before you compress it.

- Your zip file must be named:

CS231-HW05-Stack-Yourlastname.zip