ASSIGNMENT TWO

ARRAY-BASED STACKS, POINTERS, FUNCTIONS

CS2263, Fall 2021

LEARNING OUTCOMES

A completed stack manipulation program with accompanying makefile and test cases. For this assignment you may assume that the input has no errors. All numbers are integers in the proper range.

BASIC STACK WITH POINTERS

A stack is a data structure that allows to store a collection of data. The order of things coming in and out of a stack is LIFO (last in, first out).

- push, add an element to the top of the collection.
- pop, remove the element from the top of the collection.
- peek, look at the element at the top of the collection.

YOUR TASK

A. Download the A2src zip file from the lms
B. Finish implementing:
   - the main function
   - the push function
   - the pop function
   - the peek function

C. Use the Makefile to build your program and execute the tests.
D. Include in the correct directory an extra test file, and an expected output file.
E. Modify the Makefile to make use of the new test you created.

The tests are built to help you debug your program and verify that your program produces the expected outcome.

SUBMISSION

Before the due date for this assignment, students should submit a single zip or tar file (named LastName_FirstName_A2.zip or LastName_FirstName_A2.tar) online to the lms containing:

- a record of a terminal session showing the output of your testing in a single pdf file (named *LastName_FirstName_A1.pdf)*
- the directory of source files you created/used. Remove any object (.o) files and executables. Nobody needs to see those.