# Northeastern University

ETC 2103 – Data Structure Apps in C++

Test 50 points

1. Implement the following algorithm using STL stacks of type char to test for Palindromes. **[25]**

*Construct three char-valued STL stacks stack1, stack2, and stack3. Push the character string to be tested onto each of stack1 and stack2. Pop the contents of stack2, and push each of the characters popped from stack2 onto stack3. If the contents of stack1 and stack3 are identical, then the original input string is a palindrome; otherwise it is not.*

Test the algorithm for the strings **racecar** and **stressed.**

1. The second program is on recursion. The program uses recursion to implement a palindrome checker. Check the Notes on Blackboard in the Week 6 folder, page 10. Implement the palindrome checker and test the strings

**1234321** and **repaid [25]**