COMP 1603 – Tutorial/Lab 8

1. Write a function `isBalanced` which utilizes a stack to determine whether or not a given infix expression entered at the keyboard into a string `expr` (without spaces) has mismatched brackets.

2. Stack 7 integers in a stack of integers using the linked stack approach. pop each integer and return the sum of all f(x) for each integer x. f(x)= 2x+1.

3.
   a) A queue is required to hold a maximum of 10 integers. You are required to implement the Queue using arrays. Also implement the important functions which play a vital role in inserting and deleting elements and checking to see whether the queue is empty or full.

   b) Using the created functions, enqueue three numbers onto the queue.

   c) Remove two numbers and determine if their product is an even number.

   d) Attempt to remove two more numbers. What happens in this case?

4. Adjust Q3. Since the queue is empty, reload it with 10 ints. Dequeue and print all the values. While dequeuing, store all the multiples of 5 in an array. Reload the queue with all the multiples of 5 from the array. Print the new queue elements.

END OF LAB