COMP 1603 – Tutorial/Lab 7

1. Review the `insertInOrder` code on My Elearning for linked lists. Write code to insert the chars 'c', 'd', 'b', 'e', 'a', 'f' into a linked list using the `insertInOrder` code. Print the list at the end to ensure that the insertions were performed correctly.

2. Review the `mergeSorted` code on My Elearning for linked lists. Write code to insert the chars 'l', 'i', 'g', 'h', 'j', 'k' into a new linked list using the `insertInOrder` code. Print the list to ensure that the insertions were performed correctly. Merge this list with the one created from question 1 above using the `mergeSorted` code. Print the list at the end to ensure that the two lists were merged successfully.

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

   b) Using the created functions, push three numbers onto the stack.

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

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

4. An input line contains a string `word` consisting of lowercase letters only. Explain how a stack can be used to determine if the word is a palindrome.