Assignment 2

Linked List

Using code with insertFirst,find,delete and diplayList methods for the linked list that was presented in class, please:

a) Create a method that counts the number of duplicate values in the list. The method should take an input list such as {7, 1, 1, 4, 6, 2, 4, 3, 9} and output the count of duplicates, e.g., {2}.

b) Create a method that removes duplicate values from the list. The method should take an input list, for example, {7, 1, 1, 4, 6, 2, 4, 3, 9}, and output a list with duplicates removed, e.g., {7, 1, 4, 6, 2, 3, 9}. Note: Parts a and b can be implemented in a single method.

c) Create a method that swaps any two nodes from the list. For example, calling swap(7, 1) should output "Swapped nodes with data 7 and 1" and modify the list to {1, 7, 4, 6, 2, 3, 9}.

d) Implement a method to sort the linked list. Given an input list like {1, 7, 4, 6, 2, 3, 9}, the method should output the sorted list {1, 2, 3, 4, 6, 7, 9}.