



Linked List Assignment

1. Implement code to swap two elements of a Linked List. (Swap nodes and not just their data)
2. Eliminate duplicates from a sorted linked list
3. Implement Selection Sort, and Insertion Sort iteratively.
4. Check if a linked list is a palindrome
5. Reverse Linked List
 - a. Using recursion
 - b. Without using recursion
6. Arrange elements in a Linked List such that all even numbers are placed after odd numbers.
7. Print a given linked list in reverse order. Tail first. You can't change any pointer in the linked list.

Bonus Questions

1. Append the last n elements of a linked list to the front. e.g. for $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow \text{null}$ and $n = 2$ return $5 \rightarrow 6 \rightarrow 1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow \text{null}$

2. Implement `kReverse(int k)` i.e. you reverse first K elements then reverse next K elements and join the linked list and so on. $3 \rightarrow 4 \rightarrow 5 \rightarrow 2 \rightarrow 6 \rightarrow 1 \rightarrow 9$ for `kreverse(3)` becomes $5 \rightarrow 4 \rightarrow 3 \rightarrow 1 \rightarrow 6 \rightarrow 2 \rightarrow 9 \rightarrow 1$
3. Implement Bubble Sort, Selection Sort and Insertion Sort using recursion.