**Assignment: Linked List\_2**

1. Implement a function to reverse a linked list.
2. Write a program to remove duplicates from a sorted linked list.
3. Develop a function to find the middle node of the linked list in one pass.
4. Create a function that finds the N-th node from the end of the linked list.
5. Write a program to merge two sorted linked lists into one sorted linked list.
6. Implement a function to detect a loop in a linked list.
7. Write a function to delete a node with a given key (value).
8. Develop a function to insert a new node into a sorted linked list such that the list remains sorted.
9. Create a function to rotate the linked list to the right by k places.
10. Implement a function to partition a linked list around a value x, such that all nodes less than x come before nodes greater than or equal to x.