Videos for the assignment 7

1. Given a singly linked list, find middle of the linked list. For example, if given linked list is 1->2->3->4->5 then output should be.
   * <https://youtu.be/Y5FRKIGHOT0>
2. Given a singly linked list, rotate the linked list counterclockwise by k nodes. Where k is a given positive integer smaller than or equal to length of the linked list. For example, if the given linked list is 10->20->30->40->50->60 and k is 4, the list should be modified to 50->60->10->20->30->40.
   * <https://youtu.be/BtA3aTMYFJQ>
3. Given a linked list, write a function to reverse every k nodes (where k is an input to the function). If a linked list is given as 1->2->3->4->5->6->7->8->NULL and k = 3 then output will be 3->2->1->6->5->4->8->7->NULL.
   * <https://youtu.be/XF70VKPl2tY>
4. Given a linked list, check if the linked list has a loop. Linked list can contain self-loop.
   * <https://youtu.be/f5OGKqx4xOQ>
5. Given a linked list, the task is to find the n'th node from the end.
   * <https://youtu.be/XW1Ox2OPMG4>
6. Given two linked lists sorted in ascending order. Merge them in-place and return head of the merged list.   For example, if first list is 10->20->30 and second list is 15->17, then the result list should be 10->15->17->20->30. It is strongly recommended to do merging in-place using O(1) extra space.
   * <https://youtu.be/7zddjPtD3ss>
7. Given a **L**inked **L**ist where every node represents a linked list and contains two pointers of its type:
   * a**next**pointer to the next node
   * a**bottom** pointer to a linked list where this node is head.

You have to**flatten** the linked list to a **single linked list**

<https://youtu.be/kLyfmH1GrO4>

1. Given a singly linked list, write a function to swap elements pairwise. For example, if the linked list is 1->2->3->4->5 then the function should change it to 2->1->4->3->5, and if the linked list is 1->2->3->4->5->6 then the function should change it to 2->1->4->3->6->5.
   * <https://youtu.be/5oQD_0PTEuE>
2. Given two numbers represented by two lists, write a function that returns sum list. The sum list is list representation of addition of two input numbers.
   * <https://youtu.be/07DAsj-xCMs>
3. Given a singly linked list of integers, Your task is to complete the function **isPalindrome** that returns true if the given list is palindrome, else returns false.
   * <https://youtu.be/e9obqSHfQak>