PW SKILLS

Assignment Questions

DSA Practice Questions

Assignment Questions

1. **Define a doubly linked list [Will be done in the class]**

2. **Write a function to reverse a linked list in-place**

3. **Detect cycle in a linked list**

4. **Merge two sorted linked list into one**

   1->3->5->6->null and 2->4->6->8->null should be merged to make
   1->2->3->4->5->6->7->8

5. **Write a function to remove nth node from the end in a linked list**

   1->2->3->4->5->6, removing 2nd node from end will return 1->2->3->4->6

6. **Remove duplicates from a sorted linked list**

   1->2->3->3->4->4->4->5 should be changed to 1->2->3->4->5

7. **Find the intersection of the two linked lists**

   1->2->3->4->8->6->9 5->1->6->7 , intersection 1->6

8. Rotate a linked list by k positions to the right

1->2->3->4->8->6->9 , after rotating for 2 times becomes , 3->4->8->6->9->1->2

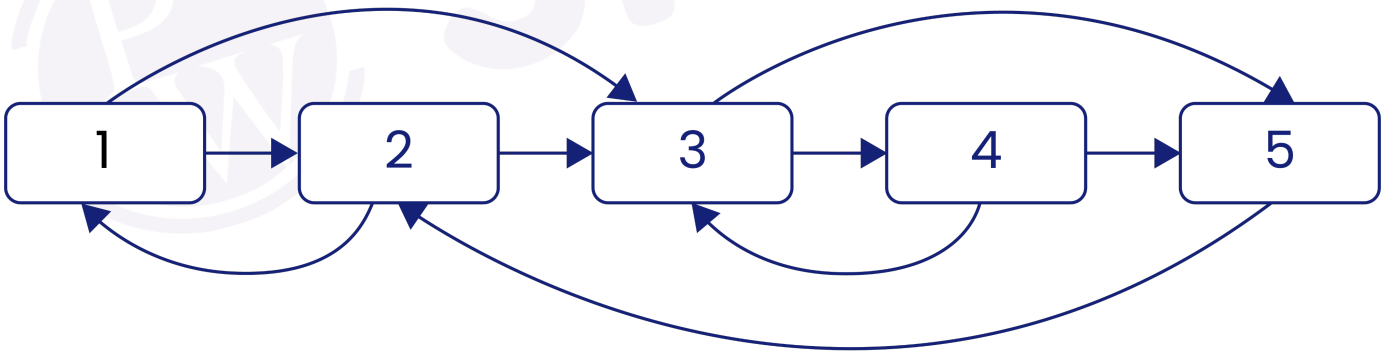
9. Add Two Numbers Represented by LinkedLists:

Given two non-empty linked lists representing two non-negative integers, where the digits are stored in reverse order, add the two numbers and return it as a linked list.

10. Clone a Linked List with next and Random Pointer

Given a linked list of size N where each node has two links: one pointer points to the next node and the second pointer points to any node in the list. The task is to create a clone of this linked list in O(N) time.

Note: The pointer pointing to the next node is 'next' pointer and the one pointing to an arbitrary node is called 'arbit' pointer as it can point to any arbitrary node in the linked list.



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THANK YOU !