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**Task 8**

Merging linkedlists:

Explanation:

Singly:

· We create two separate linked lists (list1 and list2).

· Insert some nodes into both lists.

· Find the last node of list1 and make its next pointer point to the head of list2, effectively merging them.

· Display the merged list.

1. insertLast() → Inserts a new node at the end of the list.

2. mergeList() → Merges list2 into list1 by linking the last node of list1 to the head of list2.

3. printList() → Displays the linked list.

Doubly:

l Similar to SLL, but since DLL has prev and next pointers, we update both:

l The last node of list1 should point to the first node of list2.

l The first node of list2 should have its prev pointing to the last node of list1.

1. insertLast() → Adds nodes at the end of the list.

2. mergeList() → Connects the tail of list1 with the head of list2 and updates the prev pointer of list2’s head.

3. printForward() → Displays the merged list in forward order.

