Partition List

For this problem we must rearrange nodes so that:
- All nodes < x come first
- All nodes >= x come after.
- Relative order within each partition must be preserved.

Idea (Two Lists Method):
- Use two separate dummy heads:
  - Less list: nodes < x
  - Greater list: nodes >= x
- Traverse the original list:
  - Append nodes to the corresponding list.
- Concatenate the two lists.

This approach ensures O(n) time and preserves order.

Steps:
1. Create two dummy nodes:
   - less Head (start of less-than-x list)
   - greater Head (start of greater-or-equal-x list)
2. Traverse head:
   - If val < x: append to less
   - Else: append to greater.
3. Merge less and greater.
4. Ensure greater Tail -> next = nullptr (terminate list).

Complexity:
- Time: O(n) (single pass through the list)
- Space: O(1) (in-place, only dummy nodes used).