## Merge Two Linked Lists

Let's say you have two linked lists:

 $L_1: \qquad 1 \longrightarrow 2 \longrightarrow 4$ 

 $L_2: (1) \longrightarrow (3) \longrightarrow (4)$ 

we will create dummy node for edge cases:

Output dummy ....

Iterate through lists while neither of them are null

- 1. Compare each list node val
- 2.) the lesser of the two list node vals, put into the list
- 3.) iterate to the next node in the list that had the smaller Val
- (4.) Repeat steps 1-3 until end of shorter list
- 5) place the remaining values of the longer list into list

