

❖ Nth Node:

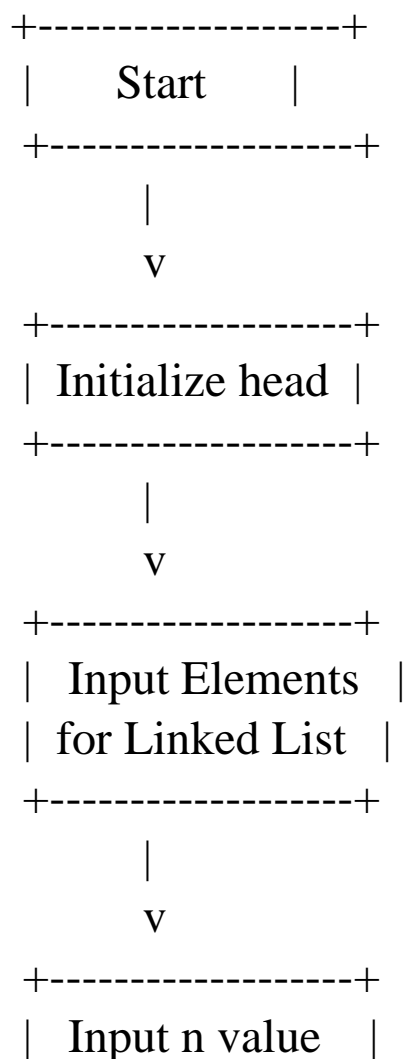
- Explanation:

The program finds the nth node from the end of a singly linked list using a two-pointer technique. It moves one pointer n nodes ahead, then advances both pointers until the first pointer reaches the end of the list. Finally, it returns the data of the node at the nth position from the end.

Time Complexity and Space Complexity:

- $O(L)$ $O(1)$

- Flowchart:



+-----+
|
v

+-----+
| Initialize |
| mainPointer and |
| referencePointer |
+-----+

|
v

+-----+
| Move |
| referencePointer |
| n nodes ahead |
+-----+

|
v

+-----+
| While |
| referencePointer |
| is not null |
+-----+

|
v

+-----+
| Move both |
| pointers forward |
+-----+

|
v

+-----+

| mainPointer now |
| at nth node from |
| the end |

+-----+

|

v

+-----+

| Print nth node's |
| value |

+-----+

|

v

+-----+

| End |

+-----+