**Lab Task 06**



**Superior University Gold Campus**

|  |  |
| --- | --- |
| **Submitted to** | ****Mr. Rasikh Ali**** |
| **Submitted by** | **Javaid Ali** |
| **Roll No** | **SU92-BSSEM-S24-029 (Section – 3A)** |
| **Subject** | **Data Structures and Algorithms (Lab)** |
| **Class** | **BS – Software Engineering** |

# **Lab 06: Singly Linked List (Delete Nodes)**This This program extends a singly linked list by adding functions to **delete nodes**: the **first node**, **last node**, **node at a specific position**, and the **center node**. The **Node** class stores data and a pointer to the next node.

# The **delete\_first\_node** function removes the head node and updates the head pointer.

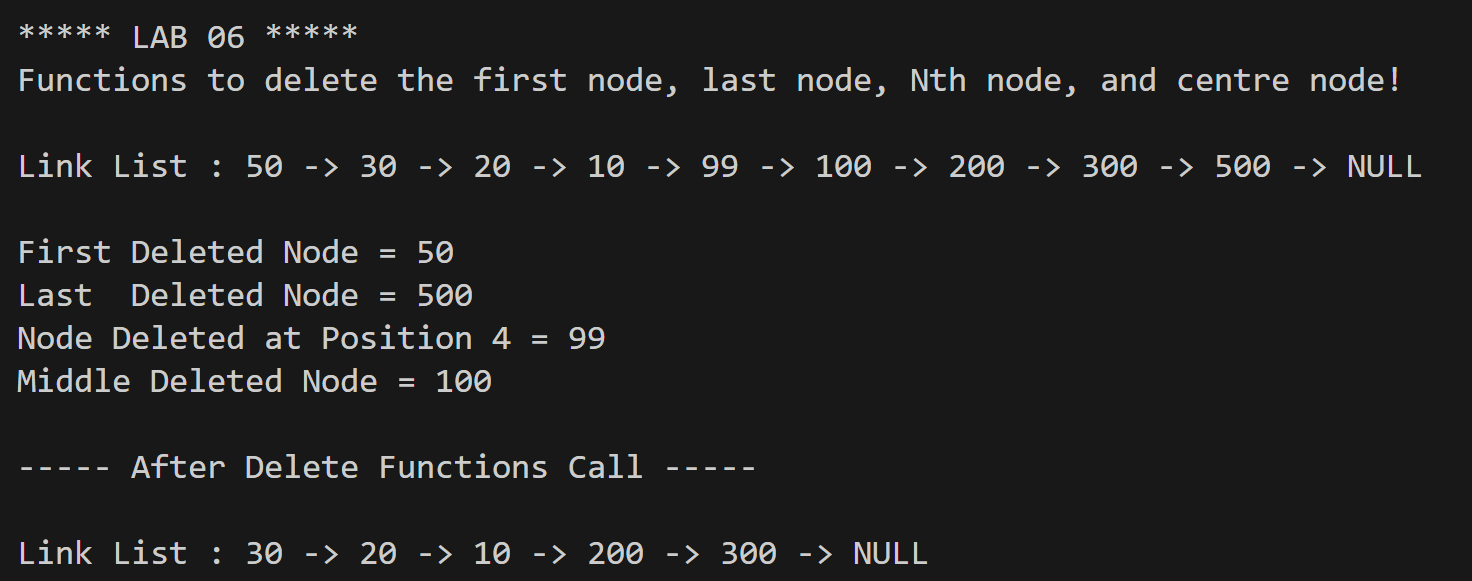
# The **delete\_last\_node** function traverses to the second-to-last node and removes the last node.

# The **delete\_node\_pos** function deletes a node at a given position, handling invalid positions.

# The **delete\_center\_node** function calculates the middle node, deletes it, and adjusts the links.

# The program demonstrates these operations by inserting nodes, deleting specific nodes, and displaying the updated list, ensuring efficient manipulation of the linked list.

**Outputs:**

****