**Lab Task 05**



**Superior University Gold Campus**

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| **Roll No** | **SU92-BSSEM-S24-029 (Section – 3A)** |
| **Subject** | **Data Structures and Algorithms (Lab)** |
| **Class** | **BS – Software Engineering** |

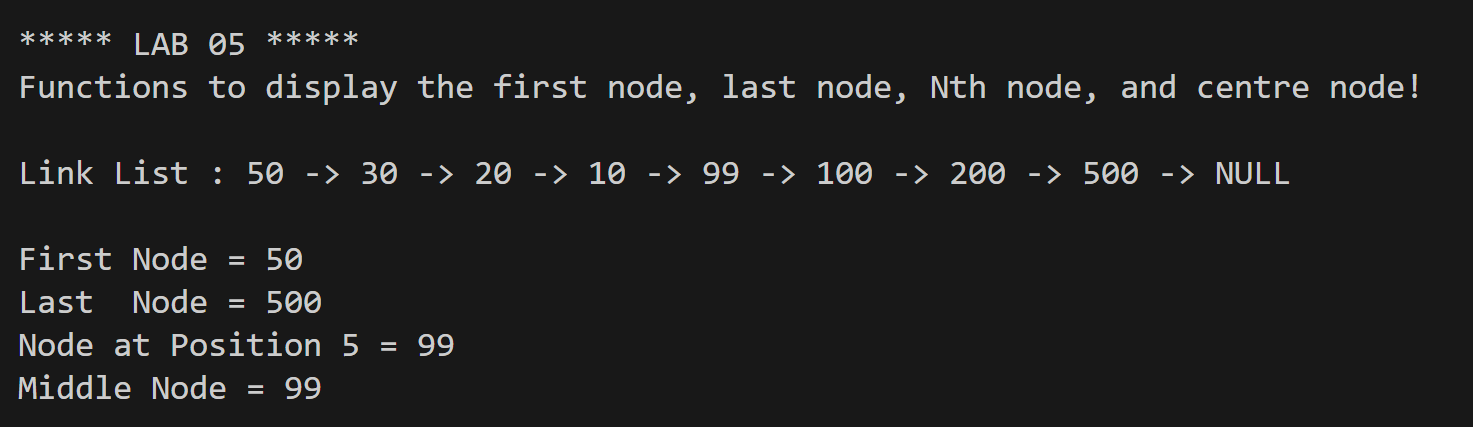
# **Lab 05: Singly Linked List (Display Nodes)**

This program enhances a **singly linked list** by adding functions to display specific nodes: the **first node**, **last node**, **node at a given position**, and the **center node**. The **Node** class stores data and a pointer to the next node.

The **display\_first\_node** and **display\_last\_node** functions traverse the list to find and print the first and last nodes, respectively. The **display\_node\_pos** function locates and displays a node at a specified position, handling invalid positions.

The **display\_center\_node** function calculates the middle node by counting the total nodes and traversing halfway. The program demonstrates these operations by inserting nodes and displaying the requested nodes, ensuring efficient access to specific elements in the list.

**Outputs:**

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