



Assignment 1:

(CLO-1: Employ linear data structures to solve computing problems.)

Deadline: 5th March 2025

Submission Requirements:

Code Implementation:

Implement the code for the assignment in a single C++ file (linked_list_operations.cpp).

Ensure the code is well-documented with comments explaining the logic and functionality of each function.

Report:

Prepare a PDF report that includes:

Title Page: Assignment title, your name, enrollment number, and date.

Visual Representation: Visual represent the operation performed for the tasks you performed in the code testing.

GitHub Submission:

Navigate to your existing course repository on GitHub.

Inside this repository, create a new folder named Assignment 1.

Add the following files to this folder:

linked_list_operations.cpp (Your C++ code file).

Report Submission:

Submit the handwritten report in Office.

Task Management System

Task: Create a simple task management system using a singly linked list where each task is represented as a node in the list.

Instructions:

1. Each task should contain:



- A unique task ID (integer).
 - A task description (string).
 - A priority level (integer).
2. Implement the following functionalities:
- Add a new task to the list at the correct position based on priority (higher priority tasks come first).
 - Remove the task with the highest priority (i.e., delete from the start).
 - Remove a specific task using its task ID.
3. Create a console-based menu to:
- Add a new task.
 - View all tasks.
 - Remove the highest priority task.
 - Remove a task by ID.