

## Lab session 6: Single Linked List: Part 2

### Objective

The objective of **lab session 6** is

- To write a full C++ program for the given problem using single linked list
- To start the course project with the given sample problems

### Pre-lab Exercise

```
cout<<"No pre-lab exercise found, that is what I Know!";
```

### In-lab Exercise

1. Write a C++ program to implement **library management system**, which helps to maintain a book-list in a small library. The book information contains the title, author, publish year, and ISBN code. It provides functions to: - add a book - delete a book based on the ISBN code or title - search for a book based on the ISBN code - list all books - It also provides an easy way for users to select a command from a command menu to perform the above functions and to input data from the keyboard.
2. Write a C++ program to implement **Student management system**, which manage the record of students in a school. This program stores the information of students and displays them to the user. It also allows searching, editing or deleting a student from list. It also provides an easy way for users to select a

command from a command menu to perform the above functions and to input data from the keyboard.

### Post-lab Exercise

1. List out the basic code which is important for
    - a. Inserting an item to the list
    - b. Deleting an item from the list
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2. Compare and contrast the algorithm for deleting at the beginning, at the end and at specific location in linked list.