

**ASSIGNMENT (30%)****❖ Grouping**

- Form a group of minimum 3 students, maximum 4 students. Members must be from the same lecture section.
- Register the group at this link : [Group Assignment Registration](#)

**❖ Question**

- You may choose one (1) title from the following list.

No	Title
1.	Library management program
2.	Room booking program
3.	Car rental management program
4.	Florist shop program
5.	Court rental management program
6.	Asset management program
7.	Sport equipment rental program
8.	Clinic appointment program
9.	Event management program
10.	Food delivering program
11.	Club and society management program
12.	Hostel management program
13.	Ticket booking program
14.	Tuition center management program
15.	Bakery shop program
16.	Stationery shop program
17.	Travel agency program

### A) Program

Write a complete program with the following requirements :

- Include at least one(1) structure and one(1) class with appropriate data members and member functions.
- The program must be able to perform all the following operations:
  - ✓ Add/Create
  - ✓ Edit/Update
  - ✓ Delete
  - ✓ Display/Read
  - ✓ Search
- Include at least four(4) of the following data structure algorithms:
  - ✓ Stack and Queue array implementation
  - ✓ Linked List
  - ✓ Linked Stack and Linked Queue
  - ✓ Sorting (Selection/Insertion/Bubble/Merge)
  - ✓ Searching (Binary/Linear)
  - ✓ Hashing

### B) Report

Write a complete report with the following requirements :

- Cover Page : Program Title, Group No, Group member details.
- Introduction : Brief description of your program (Objectives, scope, target user etc.)
- CRUD operations : Provide clear screenshot and describe the features in the program. (Add/Create, Edit/Update, Delete, Display/Read, Search)
- Data Structure and Algorithms : Describe the data structure and algorithms used in the program.
- Reference : Provide reference should you have any.
- Save the file as pdf file (Example : Group1.pdf).

### C) Video

- Record 8 to 10 minutes video using any suitable tools.
- Run the program and explain all the CRUD features that you have in your program.
- Explain data structure and algorithms that are used in the program.
- All members must present in the video.
- Ensure the video and audio are clear.
- You will be called for an interview should the lecturer require further clarification.

❖ **Expected Deliverables**

- Program can ONLY use materials, syllabus and topics that have been covered in the lecture and lab class.
- Include sufficient comments in your program to explain the code.
- Code must be written in well-indented format for easy readability.
- The program should produce error-free, neat and nice professional looking output with good user interface and is user friendly.

❖ **Submission**

- Create a folder and name it as your Group No (Example : Group 1)
- The folder contains report (Group1.pdf), source code (Group1.cpp) and video (Group1.mp4/Group1.mov). If the video is too large to uploaded in eBwise, you may upload it in YouTube or One Drive and shared the link in the report.
- Zip the folder and submit in eBwise.
- Only one submission per group.

❖ **Due Date**

- Friday, 6<sup>th</sup> February 2026