



ACADEMY OF TECHNOLOGY
Lab Assignment (Assignment 6)

Paper name: Data Structure and Algorithm

Code: PCC-CS391

Discipline: CSE

Semester: 3rd

Time: 2 Hours

Date: August 31, 2022

1. Write a menu driven program in C or C++ to implement a **stack** using single linked list and perform the following operations.
 - (a) **isEmpty()** is to check whether the stack is empty or not.
 - (b) **push()** is to insert an item in the stack.
 - (c) **pop()** is to delete an item from the stack.
 - (d) **display()** is to show the entire stack.
 2. Write a menu driven program in C or C++ to implement a **queue** using single linked list and perform the following operations.
 - (a) **isEmpty()** is to check whether the queue is empty or not.
 - (b) **insert()** is to insert an item in the queue.
 - (c) **del()** is to delete an item from the queue.
 - (d) **display()** is to show the entire queue.
 3. Write a menu driven program in C or C++ to implement a **priority queue** using single linked list and perform the following operations.
 - (a) **isEmpty()** is to check whether the queue is empty or not.
 - (b) **insert()** is to insert an item in the queue.
 - (c) **del()** is to delete an item from the queue.
 - (d) **display()** is to show the entire queue.
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