 **FACULTY OF COMPUTER SCIENCE AND ENGINEERING**

**Time: 1.5 hr CS221 Lab Marks: 10**

**Lab No: 03 Dated: 17/03/2021**

**Lab Activity 1:**

Learning Objective: Basic implementation of single linked list

By using pointers and linked list concepts, write down a simple program with structure name **node** having data members **float price**, **string product\_name**, and a **pointer to next node(which would be of type node)**.

Program takes any number of grocery items prices using **void input(string item\_name, float new\_itemprice)**. Using **void print(node \*head)** to traverse (display) all items prices in the list. Push any number of elements and display them. Also add functionality for deleting specific record.

**Lab Activity 2:**

Learning Objective: Implementation of double linked list

Create a mini student data base system which adds the record of a student (Reg#, Name) using double linked list. Your system should be fully interactive and menu driven which prompts the user to enter the choice according to the choices given below and implement the respective functionalities:

**0. Exit Program**

**1. Add a student at start of list**

**2. Add a student at the end of list**

**3. Add a student between the nodes**

**3. Show all students**

**4. Find a student**

**5. Remove a student**

**6. Remove all students**