# Department of Computing

**CS250: Data Structure and Algorithms**

**Class: BSCS 5AB**

# Lab 2: Singly Linked List

**Date: 27th September, 2016**

**Time: 9am- 12pm / 2pm – 5pm**

# Instructor: Shamyl Bin Mansoor / Akhtar Munir

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# Lab 2: Singly Linked List

**Introduction**

The Lab consists of Dynamic Singly linked lists

**Objectives**

In this lab you will learn the basic operations of linked lists.

**Tools/Software Requirement**

Visual Studio c++

**Description**

The basic operation consist of creating the list, initialize pointers to NULL, inserting nodes, insert at beginning, insert at last and deleting nodes from front.

**Lab Tasks**

You are required to upload the lab tasks on LMS and the name of that tasks must be in this format YourFullName\_reg#.cpp

Remember to comment your code properly.

**Task 1**

Create a class linked list and implement the following functions

* InsertNodeAtFront()
* InsertNodeAtBack()
* DeleteNodeFromFront()
* PrintList()

Write your own simple code.

Create Two Lists in main program;

L1: 5, 15, 25, 35

L2:10, 20, 30, 40

Create L1 by adding values from front and L2 by adding values from back

Create L3 in which you remove values from front from L1 and L2. Add the deleted values from L1 and L2 in L3

e.g L3 with data 5, 10,15,20,25,30,35,40

**Deliverable**

Students are required to upload the lab task on LMS before the deadline.