

# CSE 4304: Data Structures Lab

## Lab 03 Group 1B

### **Task 1:**

Create a Singly Linked List Class containing the following methods:

- **PushBack(key):** Adds key to the back end of the list.
- **Display():** Displays the whole list from the front to the end.
- **Reverse():** reverses the whole list.

Note: A Skeleton Code is given for your convenience.

### **Task 2:**

Write a function that will take a Singly Linked List **X** as input and return a new Singly Linked List that contains the 2nd half of **X**. You can safely imagine the length of **X** will be at least 2.

#### **Example 1:**

**Input:** X = [1,2,3]

**Output:** [2,3]

#### **Example 2:**

**Input:** X = [1,2,3,4]

**Output:** [3,4]

### **Task 3:**

Solve the same problem of Task 2 with a single loop and without any additional array.