

## **CSE291 Data Structures Lab**

### **Lab Sheet 6**

#### **Singly Linked List**

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1. Implement insertion and deletion in a singly linked list.
2. Implement a singly linked list that formulate the following functions
  - a. Count the number of nodes in the list.
  - b. Returns the sum of elements in the list.
  - c. Change the data field of a node with given value.
  - d. Move the largest element to end of the list.
  - e. To search an element in the linked list.
  - f. To concatenate two singly linked lists.
  - g. To delete even elements in a linked list.
3. Write a C++ program to reverse a singly linked list using recursion and without recursion.
4. Write a C++ program to split a singly linked list into two lists so that all elements in odd positions are in one list and those in even positions are in another list.
5. Implement a Stack using singly linked list.
6. Implement a Queue using singly linked list.