

Indian Institute of Information Technology Vadodara

Lab Assignment 5

CS162: Introduction to Data Structures Laboratory

General Instructions:

1. Attach the codes in the final document along with the screenshots of your outputs.
2. Clean and well indented codes are encouraged and carry extra marks.
3. The submissions should be made on/before the deadline.
4. **Make sure to turn in your assignment after uploading**
5. Any late submissions would attract negative marks.

1. Implement a generic Linear linked List

- a. Create a class named "LinkedList" that uses another class named "Node".
- b. The class should have (atleast) all the functions that are discussed in the Lecture. For reference, see the lecture slides.

2. Create an Application class to use the LinkedList class

- a. The Application class should have a main method.
- b. The Application class should create an object of the LinkedList class.
- c. The Application class should call all the functions of the LinkedList class.

3. Implement the following:

- a. Reverse the linked list.
- b. Circular linked list.
- c. Doubly linked list.

Note: There are total three classes in your program: LinkedList, Node, and ApplicationClass