

Lab Exercise 3 – Link Lists

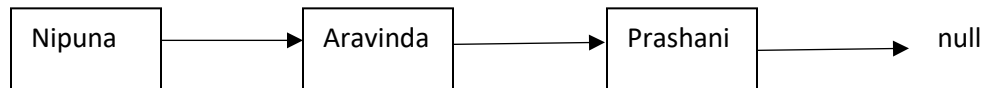
Question

a)

- i) Implement Link class to store the name and average of a student. Identify the data attributes required and implement displayDetails() method with the constructor.
- ii) In an application, create three links with the following details.

Name	Average
Nipuna	53.5
Aravinda	78.0
Prashani	69.5

- iii) Connect the three links as follows.



b)

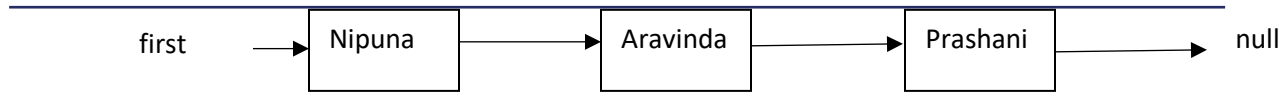
- i) Implement a LinkedList class with the following data members and method

LinkedList
- first
- LinkedList() - isEmpty() - displayList() - insertFirst() - deleteFirst()

- ii) In your application, create the following link using the LinkedList class and display the link details.

BSc (Hons) in Information Technology
Year 2
Data Structures and Algorithms – IT2070

Lab Exercise 3 – Link Lists



Hint : Use insertFirst() method

- iii) Add more links to your link list.
- c) i) Modify your linkList class to add a new method called deleteLink(). This method will find the link with the given name and delete the link.

Link deleteLink(String name)

- ii) Modify your application to delete a given link and display the details of the list.