**Homework 3**

**Deadline: Monday 28/04/2014, 11:59 pm**

**Program description:**

This program helps you in storing the large amount of data as a collection. The **LinkedList** is a part of collection that constructs a list containing the elements of the specified collection. Iterator methods returns the values in the order in which they are stored.

If you want to insert the data in the **linkedList**then use **add()** method. The **hasNext()** method returns true if the iterator contains more elements and the **next()** method returns the next element in the iteration. To insert and remove the data at first, last and specified position in the **linkedList**, you use the **addFirst()**,**addLast()**, **add()**, **removeFirst()**, **removeLast()** and**remove()** methods. To retrieve the element with respect to a specified position use the**getFirst()**, **getLast()** and **get()** methods.

**Program output:**

Based on the following output, generate your codes.



**Program steps:**

You can use these brief steps as a guideline, however, you can use any algorithm that will give the above output.

//Adding data in the list

//Create an iterator

//Check list empty or not

//Adding first

//Adding last or append

//Adding data at 3rd position

//Retrieve first data

//Retrieve last data

//Retrieve specific data

//Remove first

//After removing data

//Remove last

//After removing data

//Remove 2nd data

//After removing data

//Remove all

**Note: this can all be done in one class, you do not need to create more classes.**

**[*7 Marks*]**