**Application Design Patterns & Frameworks**

**In Class Activities Date:02-06-2025**

**Question 01:**

1. Create an ArrayList named **arrListMarks** of type integer.
2. Generate randomly 10 integers between 0 and 30 and insert them into **arrListMarks.**
3. Replace the 5th value in **arrListMarks** with the value 99.
4. Create a LinkedList named **linkedListMarks** of type integer using Java Collections.
5. Insert all values from **arrListMarks** into **linkedListMarks**. (Write your own statements).
6. Print **linkedListMarks.**

**Question 02:**

1. Create a LinkedList of string data type and name it as **studentsLinkL**
2. Insert *John, Ajay, Rachel, Ross, Sai* into **studentsLinkL..**
3. Replace *John* with *Chandler* and add *Phoebe* into **studentsLinkL.**
4. Create an ArrayList of string data type and name it as **studArrayL.**
5. Insert all names from LinkedList **studentsLinkL** into ArrayList **studArrayL.** (Write your own statements).
6. Print **studentsLinkL** and **studArrayL.**

**Question 03:**

1. Create a class **Node** with private variables data of type string and next of Node type.
2. Create a **constructor** which takes a string type variable as a parameter.
3. Create a driver class and name it as **SingleLinkedList**.
4. Create 5 nodes in the driver class and link them. Use the following strings: Java, Python, Ruby, C++, Lisp.
5. Write a method that accepts the linked list created in question 4 and returns a Circular Linked List.
6. Print the elements in the circular LinkedList as follows: f

Java, Python, Ruby, C++, Lisp, Java