8) Linked List implementaation by manual procedure.

Linked_List class :-

```java
package com.learning.ds.linkedlist;
public class Linked_List {

    Node_data head;
    public void insert(int data)
    {
        Node_data node = new Node_data();
        node.data = data;
        if(head == null){
            head = node;
        }
        else{
            Node_data n = head;
            while(n.next!=null){
                n = n.next;
            }
            n.next = node;
        }
    }
    public void insertAtFirst(int data){
        Node_data node = new Node_data();
        node.data = data;
        node.next = null;
        node.next = head;
        head = node;
    }
    public void insertAt(int index, int data) {
        Node_data node = new Node_data();
        node.data = data;
        node.next =null;
        if(index==0){
            insertAtFirst(data);
        }
        else{
            Node_data n = head;
            for(int i =0;i<index-1;i++){
                n=n.next;
            }
            node.next = n.next;
            n.next = node;
        }
    }
    public void deleteAt(int index)
    {
        Node_data n =head;
        if(index ==0){
```

```java
                    head = head.next;
            }
            else{
                    for(int i =0;i<index-1;i++){
                            n=n.next;
                    }
                    Node_data n1 = n.next;
                    n.next = n1.next;
            }
        }
        public void show(){
            Node_data n1 = head;
             while(n1.next!=null) {
                    System.out.println(n1.data);
                    n1 = n1.next;
             }
             System.out.println(n1.data);
        }
}
```

Node class :-

```java
package com.learning.ds.linkedlist;
public class Node_data {

        Node_data next;
        int data;

}
```

Runner class :

```java
package com.learning.ds.linkedlist;
public class Runner {

        public static void main(String[] args) {
                Linked_List list = new Linked_List();
                list.insert(45);
                list.insert(18);
                list.insert(23);

                list.insertAtFirst(25);

                list.insertAt(2,35);
                list.insertAt(0,15);
                list.deleteAt(2);
                list.show();
        }
}
```