7. Write a program in Java to traverse a doubly linked list in the forward and backward directions

```
package com.assign.dll;

class ListNode {
   int data;
   ListNode previous;
   ListNode next;

   ListNode(int data) {
      this.data = data;
      this.previous = null;
      this.next = null;
   }
}

public class DoublyLL {

   public static void traverseForward(ListNode head) {
      System.out.println("Traversal in forward direction:");
      ListNode current = head;
      while (current != null) {
         System.out.print(current.data + " ");
         current = current.next;
      }
      System.out.println();
   }

   public static void traverseBackward(ListNode tail) {
      System.out.println("Traversal in backward direction:");
      ListNode current = tail;
      while (current != null) {
         System.out.print(current.data + " ");
         current = current.previous;
      }
      System.out.println();
   }

   public static void main(String[] args) {
      ListNode head = new ListNode(1);
      ListNode second = new ListNode(2);
      ListNode third = new ListNode(3);

      head.next = second;
      second.previous = head;
      second.next = third;
      third.previous = second;

      // Traversing in forward direction
```

```
        traverseForward(head);

        // Traversing in backward direction
        traverseBackward(third);
    }
}
```