

1. Program for Perfect Squares

```
public class PerfectSquare {  
    public boolean isPerfectSquare(int num) {  
        if (num < 0) {  
            return false; // Negative numbers are not perfect squares  
        }  
  
        int sqrt = (int) Math.sqrt(num); // Calculate the integer square root  
        return sqrt * sqrt == num; // Check if the square of the integer square root  
        is equal to num  
    }  
  
    public static void main(String[] args) {  
        PerfectSquares ps = new PerfectSquares();  
  
        int num = 25;  
        boolean result = ps.isPerfectSquare(num);  
  
        if (result) {  
            System.out.println(num + " is a perfect square.");  
        } else {  
            System.out.println(num + " is not a perfect square.");  
        }  
    }  
}
```

OUTPUT

25 is a perfect square.

2. program for Delete Node in a Linked List in java

```
class ListNode {
    int val;
    ListNode next;

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

public class DeleteNodeInLinkedList {

    public void deleteNode(ListNode node) {
        if (node == null || node.next == null) {
            System.out.println("Cannot delete the last node");
        }
        // Copy the value of the next node to the node to be deleted
        node.val = node.next.val;

        // Skip the next node by changing the next pointer
        node.next = node.next.next;
    }

    public static void printLinkedList(ListNode head) {
        ListNode current = head;
        while (current != null) {
            System.out.print(current.val + " -> ");
            current = current.next;
        }
        System.out.println("null");
    }

    public static void main(String[] args) {
        DeleteNodeInLinkedList ls = new DeleteNodeInLinkedList();

        // Create a Linked List: 1 -> 2 -> 3 -> 4 -> 5
        ListNode head = new ListNode(1);
        head.next = new ListNode(2);
        head.next.next = new ListNode(3);
        head.next.next.next = new ListNode(4);
        head.next.next.next.next = new ListNode(5);

        System.out.println("Linked List:");
        printLinkedList(head);

        // Delete the node with value 3
        ListNode nodeToDelete = head.next.next;
        ls.deleteNode(nodeToDelete);
    }
}
```

```
        System.out.println("Linked List after Deleting Node:");  
        printLinkedList(head);  
    }  
}
```

OUTPUT

Linked List:

1 -> 2 -> 3 -> 4 -> 5 -> null

Linked List after Deleting Node:

1 -> 2 -> 4 -> 5 -> null