

5. Write a program in Java to delete the first occurrence of a key in a singly linked list

```
package javaFsd3;

public class LinkedList {
    private Node head;

    private class Node {
        int data;
        Node next;

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

    public void deleteFirstOccurrence(int key) {
        if (head == null) {
            return;
        }

        // Check if the key is present at the head
        if (head.data == key) {
            head = head.next;
            return;
        }

        Node current = head;
        Node prev = null;

        // Traverse the list to find the key
        while (current != null && current.data != key) {
            prev = current;
            current = current.next;
        }
    }
}
```

```

// If key is found, delete the node
    if (current != null) {
        prev.next = current.next;
    }
}

public void insert(int data) {
    Node newNode = new Node(data);

    if (head == null) {
        head = newNode;
    } else {
        Node current = head;
        while (current.next != null) {
            current = current.next;
        }
        current.next = newNode;
    }
}

public void display() {
    Node current = head;
    while (current != null) {
        System.out.print(current.data + " ");
        current = current.next;
    }
    System.out.println();
}

public static void main(String[] args) {
    LinkedList list = new LinkedList();

    // Insert elements into the linked list
    list.insert(20);
    list.insert(40);
    list.insert(60);
    list.insert(80);
    list.insert(90);
    list.insert(60);
}

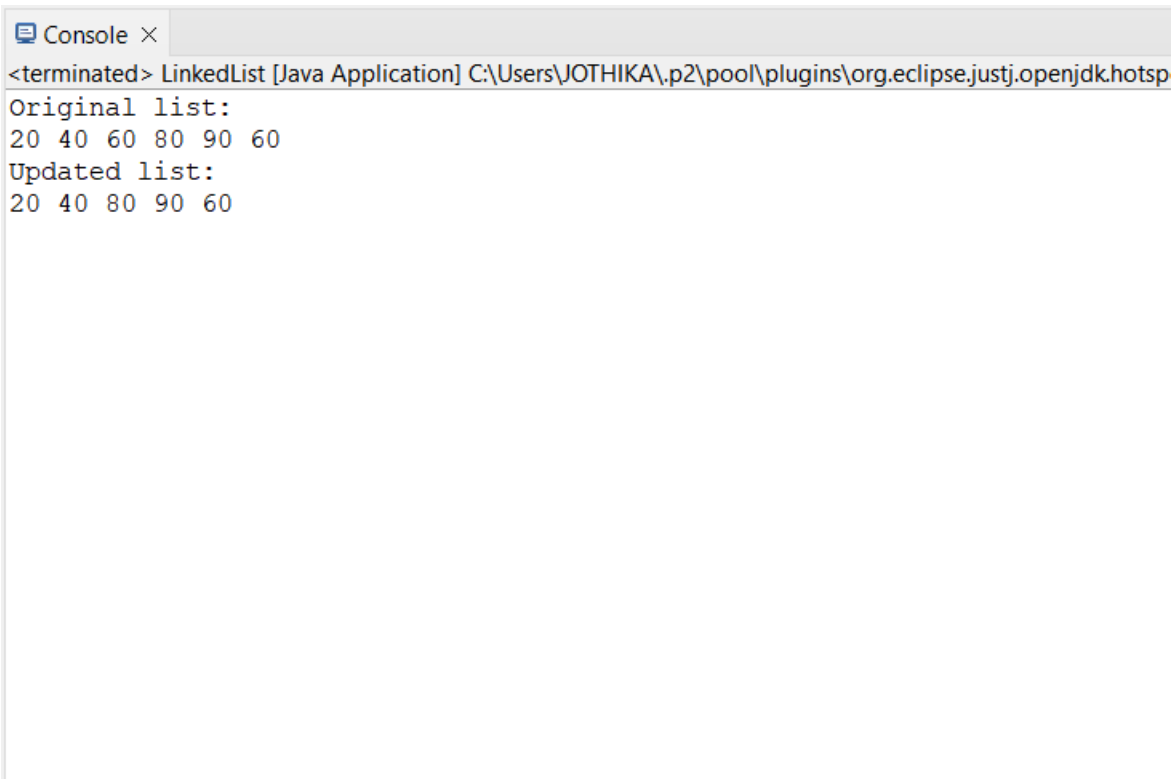
```

```
        System.out.println("Original list:");
        list.display();

        // Delete the first occurrence of key 60
        list.deleteFirstOccurrence(60);

        System.out.println("Updated list:");
        list.display();
    }
}
```

Output



```
<terminated> LinkedList [Java Application] C:\Users\JOTHIKA\.p2\pool\plugins\org.eclipse.justj.openjdk.hotsp
Original list:
20 40 60 80 90 60
Updated list:
20 40 80 90 60
```