

B1) Reverse LinkedList.

```
public class ReverseLinkedList {  
    static Node reverse(Node head) {  
        Node prev = null;  
        Node next = null;  
        Node current = head;  
  
        while (current != null) {  
            next = current.next;  
            current.next = prev;  
            prev = current;  
            current = next;  
        }  
        return prev;  
    }  
}
```

B2) Remove Value

```
public class RemoveValue {  
    Node removeValue(Node head, int value) {  
        if (head == null) {  
            return null;  
        }  
        while (head != null && head.data equals (value)) {  
            head = head.next;  
        }  
        Node current = head;  
        while (current != null && current.next != null) {  
            if (current.next.data.equals(value)) {  
                current.next = current.next.next;  
            } else {  
                current = current.next;  
            }  
        }  
    }  
}
```

```

        current = current.next;
    }
}
return head;
}
}

```

B3) Multiply Two Linked List

```

public class MultiplyTwoLinkedList {
    public long multiply(Node headA, Node headB) {
        long MOD = 1000000007;
        long n1 = 0;
        long n2 = 0;
        while (headA != null) {
            n1 = (n1 * 10) + headA.data;
            headA = headA.next;
        }
        while (headB != null) {
            n2 = (n2 * 10) + headB.data;
            headB = headB.next;
        }
        return (n1 * n2) % MOD;
    }
}

```

B4) Is Palindrome Linked List

```

public class IsPalindromeLinkedList extends ReverseLinkedList {
    static boolean isPalindrome(Node head) {
        Node clone = copyNode(head);
        clone = reverse(clone);
        while (clone != null) {

```



```

        if (clone.data != head.data) {
            return false;
        }
        clone = clone.next;
        head = head.next;
    }
    return true;
}

static Node copyNode(Node head) {
    if (head == null) {
        return null;
    }
    Node copyHead = new Node(head.data);
    Node current = head.next;
    Node copyCurrent = copyHead;

    while (current != null) {
        copyCurrent.next = new Node(current.data);
        copyCurrent = copyCurrent.next;
        current = current.next;
    }
    return copyHead;
}

```

B5) Merge Two Sorted Linked List.

```

public class MergeTwoSortedLinkedList {
    static Node merge(Node head1, Node head2) {
        if (head1 == null) { return head2; }
        else if (head2 == null) { return head1; }
    }
}

```

```
Node dummy = new Node(0);  
Node current = dummy;
```

```
while (head1 != null && head2 != null) {  
    if (head1.data < head2.data) {  
        current.next = head1;  
        head1 = head1.next;  
    } else {  
        current.next = head2;  
        head2 = head2.next;  
    }  
    current = current.next;  
}  
if (head1 != null) {  
    current.next = head1;  
}  
if (head2 != null) {  
    current.next = head2;  
}  
return dummy.next;  
}
```

B6) Remove Nth Node From End

```
public class RemoveNthNodeFromEnd {
```

```
    static Node remove(Node head, int n) {
```

```
        Node dummy = new Node(0);
```

```
        dummy.next = head;
```

```
        Node iterator1 = dummy;
```

```
        Node iterator2 = dummy;
```

```
        for (int i = 1; i <= n; i++) {
```



```

        iterator1 = iterator1.next;
    }
    while (iterator1 != null && iterator1.next != null) {
        iterator1 = iterator1.next;
        iterator2 = iterator2.next;
    }
    iterator2.next = iterator2.next.next;

    return dummy.next;
}
}

```

B7) Delete Middle of Linked List

```

public class DeleteMiddleOfLinkedList {
    static Node delete(Node head) {
        if (head == null || head.next == null) {
            return head;
        }
        Node temp1 = head;
        Node temp2 = head;
        int length = 0;
        while (temp1 != null) {
            length++;
            temp1 = temp1.next;
        }
        int mid = length / 2;
        for (int i = 1; i < mid; i++) {
            temp2 = temp2.next;
        }
        temp2.next = temp2.next.next;
        return head;
    }
}

```