Task 2: Linked List Middle Element Search

You are given a singly linked list. Write a function to find the middle element without using any extra space and only one traversal through the linked list.

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

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

public class Main {
    public static void main(String[] args) {
        // Create a sample linked list
        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);

        // Find the middle element
        ListNode middle = findMiddleElement(head);

        // Print the middle element value
        System.out.println("Middle Element: " + middle.val);
    }

    public static ListNode findMiddleElement(ListNode head) {
        ListNode slow = head;
        ListNode fast = head;

        while (fast != null && fast.next != null) {
            slow = slow.next;
            fast = fast.next.next;
        }

        return slow;
    }
}
```