Palindrome Linked List

Try to solve the Palindrome Linked List problem.

We'll cover the following

Statement

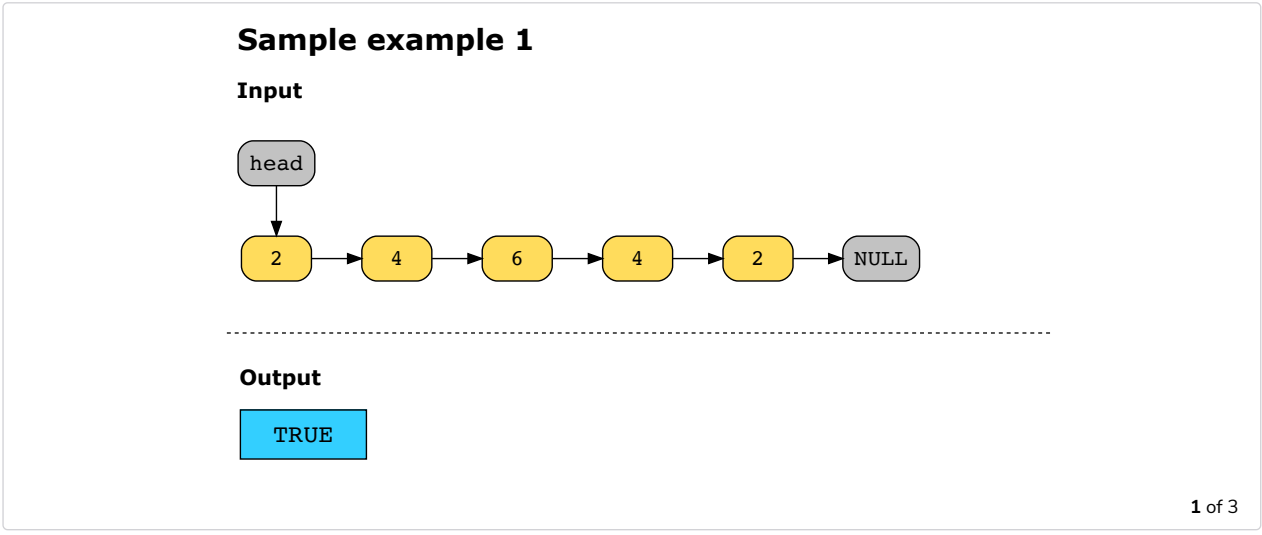
Given the head of a linked list, your task is to check whether the linked list is a palindrome or not. Return TRUE if the linked list is a palindrome; otherwise, return FALSE.

Constraints:

Let `n` be the number of nodes in a linked list.

- $1 \leq$ `n` ≤ 500
- $0 \leq$ `Node.value` ≤ 9.

Examples



Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Palindrome Linked List

1 What is the output if the following linked list is provided as input?

$7 \rightarrow 3 \rightarrow 3 \rightarrow 3 \rightarrow 7$

A) TRUE

B) FALSE

Submit Answer

Question 1 of 4
0 attempted

Reset Quiz

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Reverse the second half of the linked list and compare it with the first half.

Initialize the slow and fast pointers to the head of the linked list.

Traverse the linked list using both pointers at different speeds. At each iteration, the slow pointer increments by one node, and the fast pointer increments by two nodes.

If both halves of the list match, the linked list is a palindrome. Otherwise, it is not.

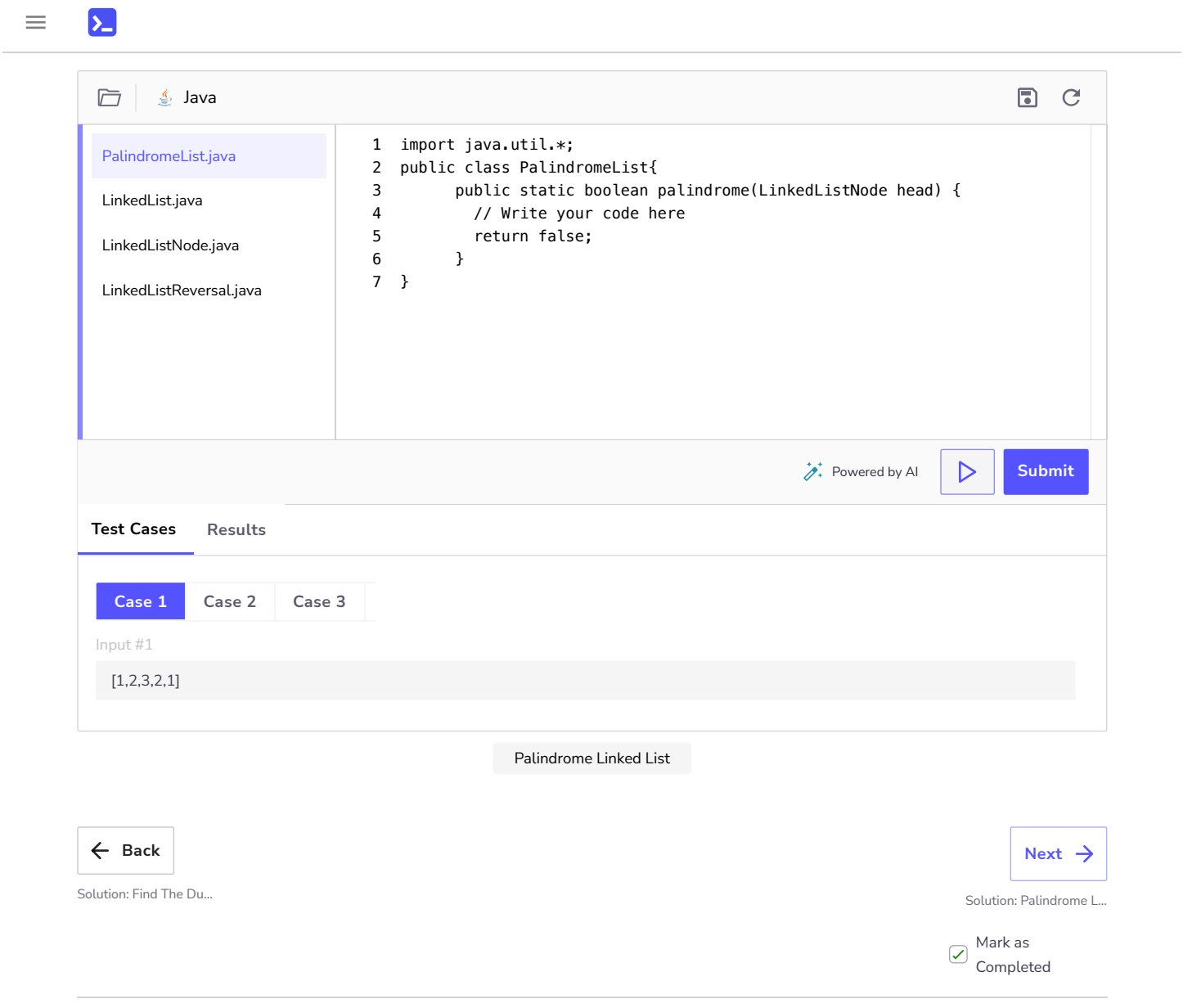
Continue doing so until the fast pointer reaches the end of the linked list. At this point, the slow pointer will be

pointing to the middle of the linked list.

Reset | Show Solution | Submit

Try it yourself

Implement your solution in `PalindromeList.java` in the following coding playground. You'll need the



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