Description | Editorial | Solutions | Submissions

3062. Winner of the Linked List Game

Premium

Solved

Easy | Topics | Hint

You are given the `head` of a linked list of **even** length containing integers.

Each **odd-indexed** node contains an odd integer and each **even-indexed** node contains an even integer.

We call each even-indexed node and its next node a **pair**, e.g., the nodes with indices `0` and `1` are a pair, the nodes with indices `2` and `3` are a pair, and so on.

For every **pair**, we compare the values of the nodes in the pair:

- If the odd-indexed node is higher, the `"Odd"` team gets a point.
- If the even-indexed node is higher, the `"Even"` team gets a point.

Return *the name of the team with the **higher** points, if the points are equal, return* `"Tie"`.

Example 1:

> **Input:** `head = [2,1]`
>
> **Output:** `"Even"`
>
> **Explanation:** There is only one pair in this linked list and that is `(2,1)`. Since `2 > 1`, the Even team gets the point.
>
> Hence, the answer would be `"Even"`.

Example 2:

> **Input:** `head = [2,5,4,7,20,5]`
>
> **Output:** `"Odd"`
>
> **Explanation:** There are `3` pairs in this linked list. Let's investigate each pair individually:
>
> `(2,5)` -> Since `2 < 5`, The Odd team gets the point.
>
> `(4,7)` -> Since `4 < 7`, The Odd team gets the point.
>
> `(20,5)` -> Since `20 > 5`, The Even team gets the point.
>
> The Odd team earned `2` points while the Even team got `1` point and the Odd team has the higher points.
>
> Hence, the answer would be `"Odd"`.

Example 3:

> **Input:** `head = [4,5,2,1]`
>
> **Output:** `"Tie"`
>
> **Explanation:** There are `2` pairs in this linked list. Let's investigate each pair individually:
>
> `(4,5)` -> Since `4 < 5`, the Odd team gets the point.
>
> `(2,1)` -> Since `2 > 1`, the Even team gets the point.
>
> Both teams earned `1` point.
>
> Hence, the answer would be `"Tie"`.

Constraints:

- The number of nodes in the list is in the range `[2, 100]`.
- The number of nodes in the list is even.
- `1 <= Node.val <= 100`
- The value of each odd-indexed node is odd.
- The value of each even-indexed node is even.

Seen this question in a real interview before? 1/5

Yes | No

Accepted 7.6K | Submissions 9.3K | Acceptance Rate 82.2%

Topics

Hint 1

Hint 2

Hint 3

Discussion (3)

24 | 3

Code

Python3 • Auto

```python
#         self.next = next
class Solution:
    def gameResult(self, head: Optional[ListNode]) -> str:

        even = 0
        odd = 0

        index = 1
        prev = head.val
        head = head.next

        while head:

            if index % 2 == 0:
                prev = head.val
            else:
                new = head.val
                if new > prev:
                    odd += 1
                else:
                    even += 1

            head = head.next
            index += 1

        if even > odd:
            return("Even")
        elif even < odd:
            return("Odd")
        else:
            return("Tie")
```

Saved

Ln 9, Col 17

Testcase | Test Result

Accepted Runtime: 33 ms

Case 1

Input

head =