1522. Stone Game III

Difficulty : Hard

Alice and Bob continue their games with piles of stones. There are several stones **arranged in a row**, and each stone has an associated value which is an integer given in the array `stoneValue`.

Alice and Bob take turns, with Alice starting first. On each player's turn, that player can take `1`, `2`, or `3` stones from the **first** remaining stones in the row.

The score of each player is the sum of the values of the stones taken. The score of each player is `0` initially.

The objective of the game is to end with the highest score, and the winner is the player with the highest score and there could be a tie. The game continues until all the stones have been taken.

Assume Alice and Bob **play optimally**.

Return `"Alice"` *if Alice will win,* `"Bob"` *if Bob will win, or* `"Tie"` *if they will end the game with the same score.*

Example 1:

Input: stoneValue = [1,2,3,7]
Output: "Bob"
Explanation: Alice will always lose. Her best move will be to take three piles and the score become 6. Now the score of Bob is 7 and Bob wins.

Example 2:

Input: stoneValue = [1,2,3,-9]
Output: "Alice"
Explanation: Alice must choose all the three piles at the first move to win and leave Bob with negative score.
If Alice chooses one pile her score will be 1 and the next move Bob's score becomes 5. In the next move, Alice will take the pile with value = -9 and lose.
If Alice chooses two piles her score will be 3 and the next move Bob's score becomes 3. In the next move, Alice will take the pile with value = -9 and also lose.
Remember that both play optimally so here Alice will choose the scenario that makes her win.

Example 3:

Input: stoneValue = [1,2,3,6]
Output: "Tie"
Explanation: Alice cannot win this game. She can end the game in a draw if she decided to choose all the first three piles, otherwise she will lose.

Constraints:

- `1 <= stoneValue.length <= 5 * 10`^{4}
- `-1000 <= stoneValue[i] <= 1000`