Leetcode Problem 1. (Easy)

Plus One

You are given a **large integer** represented as an integer array digits, where each digits[i] is the ith digit of the integer. The digits are ordered from most significant to least significant in left-to-right order. The large integer does not contain any leading 0's.

Increment the large integer by one and return *the resulting array of digits*.

**Example 1:**

**Input:** digits = [1,2,3]

**Output:** [1,2,4]

**Explanation:** The array represents the integer 123.

Incrementing by one gives 123 + 1 = 124.

Thus, the result should be [1,2,4].

**Example 2:**

**Input:** digits = [4,3,2,1]

**Output:** [4,3,2,2]

**Explanation:** The array represents the integer 4321.

Incrementing by one gives 4321 + 1 = 4322.

Thus, the result should be [4,3,2,2].

**Example 3:**

**Input:** digits = [9]

**Output:** [1,0]

**Explanation:** The array represents the integer 9.

Incrementing by one gives 9 + 1 = 10.

Thus, the result should be [1,0].

**Constraints:**

* 1 <= digits.length <= 100
* 0 <= digits[i] <= 9
* digits does not contain any leading 0's.

<https://leetcode.com/problems/plus-one/>

class Solution {

public int[] plusOne(int[] digits) {

int carry = 1;

int n = digits.length;

for (int i = n - 1; i >= 0; i--) {

int sum = digits[i] + carry;

digits[i] = sum % 10;

carry = sum / 10;

if (carry == 0) {

return digits;

}

}

int[] result = new int[n + 1];

result[0] = carry;

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

result[i] = digits[i - 1];

}

return result;

}

}

