

Day – 56 of the 101 days of coding challenge-----

Problem:-

Given a sorted array of distinct integers and a target value, return the index if the target is found. If not, return the index where it would be if it were inserted in order.

You must write an algorithm with $O(\log n)$ runtime complexity.

Example:-

Input: nums = [1,3,5,6], target = 5

Output: 2

Solution:-

```
int searchInsert(vector<int>& nums, int target) {  
  
    int result;  
    int length = nums.size();  
  
    for(int i = 0; i<length; i++)  
    {  
        if(nums[i] >= target)  
        {  
            result = i;  
            break;  
        }  
    }  
  
    return result;  
}
```

✓ Accepted

Editorial

+ Solution

⌚ Runtime

Details

0 ms

Beats 100.00% of users with C++

💾 Memory

Details

10.08 MB

Beats 22.78% of users with C++

Problem:-

You are given a **large integer** represented as an integer array `digits`, where each `digits[i]` is the i th 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*.

Ex:-

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]`.

Solution:-

```
vector<int> plusOne(vector<int>& digits) {
    int n = digits.size();
    int carry = 1; // Initialize carry to 1 to add one

    for (int i = n - 1; i >= 0; i--) {
        int sum = digits[i] + carry;
        digits[i] = sum % 10; // Update the current digit
        carry = sum / 10; // Calculate the carry for the next digit

        if (carry == 0) {
            break; // No need to continue if carry becomes 0
        }
    }
}
```

```
        if (carry > 0) {  
            digits.insert(digits.begin(), carry); // If there's still a carry, insert it  
at the beginning  
        }  
  
        return digits;  
    }  
  
};
```

✓ Accepted

📖 Editorial

+ Solution

🕒 Runtime

Details

5 ms

Beats 8.45% of users with C++

💾 Memory

Details

9.07 MB

Beats 41.83% of users with C++