74. Search a 2D Matrix

Medium 6584 252 Add to List Share

Write an efficient algorithm that searches for a value `target` in an `m x n` integer matrix `matrix`. This matrix has the following properties:

- Integers in each row are sorted from left to right.
- The first integer of each row is greater than the last integer of the previous row.

Example 1:

1	3	5	7
10	11	16	20
23	30	34	60

```
Input: matrix = [[1,3,5,7],[10,11,16,20],[23,30,34,60]], target = 3
Output: true
```

Example 2:

1	3	5	7
10	11	16	20
23	30	34	60

Java Autocomplete

```java
class Solution {

    private boolean binarySearch(int[] array, int target)
{
        int left = 0;
        int right = array.length - 1;

        while(left <= right){
            int mid = left + (right - left) / 2;

            if(array[mid] == target)
                return true;
            else if(array[mid] > target)
                right = mid - 1;
            else
                left = mid + 1;
        }

        return false;
    }

    public boolean searchMatrix(int[][] matrix, int
target) {

        int m = matrix.length;
        int n = matrix[0].length;

        for(int i= 0 ; i < m; i++){
            if(binarySearch(matrix[i], target))
                return true;
        }

        return false;
    }
}
```