Description Solution Discuss (999+) Submissions

216. Combination Sum III

Medium 3653 87 Add to List Share

Find all valid combinations of `k` numbers that sum up to `n` such that the following conditions are true:

- Only numbers `1` through `9` are used.
- Each number is used **at most once**.

Return *a list of all possible valid combinations*. The list must not contain the same combination twice, and the combinations may be returned in any order.

Example 1:

```
Input: k = 3, n = 7
Output: [[1,2,4]]
Explanation:
1 + 2 + 4 = 7
There are no other valid combinations.
```

Example 2:

```
Input: k = 3, n = 9
Output: [[1,2,6],[1,3,5],[2,3,4]]
Explanation:
1 + 2 + 6 = 9
1 + 3 + 5 = 9
2 + 3 + 4 = 9
There are no other valid combinations.
```

Example 3:

```
Input: k = 4, n = 1
Output: []
Explanation: There are no valid combinations.
Using 4 different numbers in the range [1,9], the smallest sum we can get
is 1+2+3+4 = 10 and since 10 > 1, there are no valid combination.
```

Constraints:

- `2 <= k <= 9`
- `1 <= n <= 60`

Accepted 329,785 Submissions 499,790

Seen this question in a real interview before? Yes No

Companies

Related Topics

Similar Questions

Java Autocomplete

```java
class Solution {
    public List<List<Integer>> combinationSum3(int k, int n) {

    }
}
```

Problems Pick One Prev 216/2268 Next Console Contribute Run Code Submit