Problem 77: Combinations

Problem Information

Difficulty: Medium
Acceptance Rate: 73.77%
Paid Only: No
Tags: Backtracking

Problem Description

Given two integers `n` and `k`, return _all possible combinations of_ `k` _numbers chosen from the range_ `[1, n]`.

You may return the answer in **any order**.

Example 1:

Input: n = 4, k = 2 **Output:** [[1,2],[1,3],[1,4],[2,3],[2,4],[3,4]] **Explanation:** There are 4 choose 2 = 6 total combinations. Note that combinations are unordered, i.e., [1,2] and [2,1] are considered to be the same combination.

Example 2:

Input: n = 1, k = 1 **Output:** [[1]] **Explanation:** There is 1 choose 1 = 1 total combination.

Constraints:

* `1 <= n <= 20` * `1 <= k <= n`

Code Snippets

C++:

```
class Solution {
public:
vector<vector<int>> combine(int n, int k) {

}
};
```

Java:

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

}
}
```

Python3:

```
class Solution:
def combine(self, n: int, k: int) -> List[List[int]]:
```