

LEETCODE SOLUTIONS - YOGESH MUNEEES

22. Generate Parentheses

Medium ✓ 19.3K 773 ☆ 🔄

🔒 Companies

Given n pairs of parentheses, write a function to *generate all combinations of well-formed parentheses*.

Example 1:

Input: $n = 3$
Output: ["((()))", "(()())", "(())()", "()(())", "()()()"]

Example 2:

Input: $n = 1$
Output: ["()"]

Constraints:

- $1 \leq n \leq 8$

Solution:

```
class Solution:
    def generateParenthesis(self, n: int) -> List[str]:
        fin = []
        def track(brackets, op, cl):
            if op==cl==n:
                fin.append("".join(brackets))
                return fin
            if cl<op:
                brackets.append(")")
                track(brackets, op, cl+1)
                brackets.pop()
            if op<n:
                brackets.append("(")
                track(brackets, op+1, cl)
                brackets.pop()
        track(["("], 1, 0)
        return fin
```