

#15 Days of Coding Challenge

#Day 4

Valid parentheses

#Leetcode 20

Solution:

```
class Solution {
public:
    bool isValid(string s) {
        stack<char> st;

        unordered_map<char, char> matching_bracket = {
            {'}', '('},
            {'}', '{'},
            {'}', '['}
        };

        for (char ch : s) {
            if (ch == '(' || ch == '{' || ch == '[') {
                st.push(ch);
            }
            else {
                if (st.empty() || st.top() != matching_bracket[ch]) {
                    return false;
                }
                st.pop();
            }
        }

        return st.empty();
    }
};
```

Time Complexity: $O(n)$

Space Complexity: $O(n)$