

## Valid Parentheses

E

Given a string `s` containing just the characters `'('`, `)'`, `'{'`, `'}'`, `'['` and `']'`, determine if the input string is valid.

An input string is valid if:

1. Open brackets must be closed by the same type of brackets.
2. Open brackets must be closed in the correct order.

### Example 1:

Input: `s = "()"`

Output: `true`

### Example 2:

Input: `s = "()[]{}"`

Output: `true`

### Example 3:

Input: `s = "("`

Output: `false`

### Example 4:

Input: `s = "([)]"`

Output: `false`

### Example 5:

Input: `s = "{[]}"`

Output: `true`

### Constraints:

- `1 <= s.length <= 104`
- `s` consists of parentheses only `'()[]{}'`.

## Program :

```

class Solution {
    public boolean isValid(String s) {

        HashMap<Character, Character> map = new HashMap<Character, Character>();

        map.put('(', ')');
        map.put('[', ']');
        map.put('{', '}');

        Stack<Character> stack = new Stack<Character>();

        for (int i = 0; i < s.length(); i++) {
            char curr = s.charAt(i);

            if (map.keySet().contains(curr)) {
                stack.push(curr);
            } else if (map.values().contains(curr)) {
                if (!stack.empty() && map.get(stack.peek()) == curr) {
                    stack.pop();
                } else {
                    return false;
                }
            }
        }

        return stack.empty();
    }
}

```

**Output :**

Accepted

Runtime: 0 ms

Your input

"()"

Output

true

Diff

Expected

true