**Challenge 2**

**Instructions**

1.You can write the code in preferred programming language.

2. Upload the code to github with the support of your mentors.

3. Share the link of your github repository on or before 12.00 PM 17th December 2022.

**Problem**

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

**Constraints:**

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

**Evaluation Criteria**

**Logic related**

1. Splitting the string to identify brackets alone **3 marks**
2. Add them to a data structure. E.g., stack **5 marks**
3. Logic to identify open bracket, close bracket, and the correctness of the order of brackets

E.g., conditional statements/ switch statements / streams / applying loops

**10 marks**

4. Return the outcome **2 marks**

**Code related**

1. Correctness of defining variables, data structures **2 marks**
2. Readability of the code (Cognitive complexity) **2 marks**
3. Empty check and/or null check if applicable **1 marks**
4. Executes without run time errors **5 marks**

Total **30 marks**