Week 10- Day 4 : Coding Challenge

(Maximum marks -15)
Q-1) Valid Parentheses:

https://leetcode.com/problems/valid-parentheses/
(5 marks)
(Easy)
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

Q-2)Baseball Game: **(5 marks)**
https://leetcode.com/problems/baseball-game/
(Easy)
You are keeping score for a baseball game with strange rules. The game consists of several rounds, where the scores of past rounds may affect future rounds' scores.

At the beginning of the game, you start with an empty record. You are given a list of strings ops, where ops[i] is the ith operation you must apply to the record and is one of the following:

1. An integer x - Record a new score of x.
2. "+" - Record a new score that is the sum of the previous two scores. It is guaranteed there will always be two previous scores.

3. "D" - Record a new score that is double the previous score. It is guaranteed there will always be a previous score.
4. "C" - Invalidate the previous score, removing it from the record. It is guaranteed there will always be a previous score.

Return *the sum of all the scores on the record*.

Example 1:

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Input: ops = ["5","2","C","D","+"]
Output: 30
Explanation:
"5" - Add 5 to the record, record is now [5].
"2" - Add 2 to the record, record is now [5, 2].
"C" - Invalidate and remove the previous score, record is now [5].
"D" - Add 2 * 5 = 10 to the record, record is now [5, 10].
"+" - Add 5 + 10 = 15 to the record, record is now [5, 10, 15].
The total sum is 5 + 10 + 15 = 30.
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Q-3)Remove All Adjacent Duplicates In String (5 marks)

https://leetcode.com/problems/remove-all-adjacent-duplicates-in-string/

(Easy)

You are given a string s consisting of lowercase English letters. A duplicate removal consists of choosing two adjacent and equal letters and removing them.

We repeatedly make duplicate removals on s until we no longer can.

Return *the final string after all such duplicate removals have been made*. It can be proven that the answer is unique.

Example 1:

Input: s = "abbaca"
Output: "ca"
Explanation:
For example, in "abbaca" we could remove "bb" since the letters are adjacent and equal, and this is the only possible move. The result of this move is that the string is "aaca", of which only "aa" is possible, so the final string is "ca".

Marks distribution:
Question 1,2 and 3 carry 5 marks each.