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Longest Palindromic Subsequence

Difficulty: **Medium** Accuracy: **56.57%** Submissions: **105K+** Points: **4**

Given a string **s**, return the **length** of the longest palindromic subsequence.

A subsequence is a sequence that can be derived from the given sequence by deleting some or no elements without changing the order of the remaining elements.

A palindromic sequence is a sequence that reads the same forward and backward.

Examples:

Input: s = "bbabcbcab"
Output: 7
Explanation: Subsequence "babcbab" is the longest subsequence which is also a palindrome.

Input: s = "abcd"
Output: 1
Explanation: "a", "b", "c" and "d" are palindromic and all have a length 1.

Input: s = "agbdba"

Java (1.8) | Start Timer

```java
// } Driver Code Ends
class Solution {
    public int longestPalinSubseq(String s) {
        int n = s.length();
        int[] curr = new int[n];
        int[] prev = new int[n];
        for(int i = n - 1; i>=0; --i){
            curr[i] = 1;
            for(int j = i + 1; j < n; ++j){
                if(s.charAt(i) == s.charAt(j)){
                    curr[j] = prev[j -1] + 2;
                }else{
                    curr[j] = Math.max(prev[j], curr[j - 1]);
                }
            }
            prev = curr.clone();
        }
        return curr[n - 1];
    }
}
```

Custom Input | Compile & Run | Submit