

Prompt	Scratchpad	Our Solution(s)	Video Explanation	Run Code
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Solution 1

Solution 2

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1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 import java.util.Arrays;
4
5 class Program {
6     // O(n^3) time | O(n^2) space
7     public static int palindromePartitioningMinCuts(String str) {
8         boolean[][] palindromes = new boolean[str.length()][str.length()];
9         for (int i = 0; i < str.length(); i++) {
10             for (int j = i; j < str.length(); j++) {
11                 palindromes[i][j] = isPalindrome(str.substring(i, j + 1));
12             }
13         }
14         int[] cuts = new int[str.length()];
15         Arrays.fill(cuts, Integer.MAX_VALUE);
16         for (int i = 0; i < str.length(); i++) {
17             if (palindromes[0][i]) {
18                 cuts[i] = 0;
19             } else {
20                 cuts[i] = cuts[i - 1] + 1;
21                 for (int j = 1; j < i; j++) {
22                     if (palindromes[j][i] && cuts[j - 1] + 1 < cuts[i]) {
23                         cuts[i] = cuts[j - 1] + 1;
24                     }
25                 }
26             }
27         }
28         return cuts[str.length() - 1];
29     }
30
31     public static boolean isPalindrome(String str) {
32         int leftIdx = 0;
33         int rightIdx = str.length() - 1;
34         while (leftIdx < rightIdx) {
35             if (str.charAt(leftIdx) != str.charAt(rightIdx)) {
36                 return false;
37             }
38             leftIdx++;
39             rightIdx--;
40         }
41         return true;
42     }
43 }
44
```

