

Solution 1Solution 2

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 #include <vector>
4 #include <climits>
5 using namespace std;
6
7 // O(n^2) time | O(n^2) space
8 int palindromePartitioningMinCuts(string s) {
9     vector<vector<bool>> palindromes(s.length(), vector<bool>(s.length(), false));
10    for (int i = 0; i < s.length(); i++) {
11        palindromes[i][i] = true;
12    }
13    for (int length = 2; length < s.length() + 1; length++) {
14        for (int i = 0; i < s.length() - length + 1; i++) {
15            int j = i + length - 1;
16            if (length == 2) {
17                palindromes[i][j] = (s[i] == s[j]);
18            } else {
19                palindromes[i][j] = (s[i] == s[j] && palindromes[i + 1][j - 1]);
20            }
21        }
22    }
23    vector<int> cuts(s.length(), INT_MAX);
24    for (int i = 0; i < s.length(); i++) {
25        if (palindromes[0][i]) {
26            cuts[i] = 0;
27        } else {
28            cuts[i] = cuts[i - 1] + 1;
29            for (int j = 1; j < i; j++) {
30                if (palindromes[j][i] && cuts[j - 1] + 1 < cuts[i]) {
31                    cuts[i] = cuts[j - 1] + 1;
32                }
33            }
34        }
35    }
36    return cuts[s.length() - 1];
37 }
38
```

