

```

1  class Solution {
2  public:
3      string frequencySort(string s) {
4          string sorted;
5          int freq;
6          // Vector to store pairs of character and frequency
7          vector<pair<char, int>> charFreq;
8
9          for (int i = 0; i < s.length(); i++) {
10             // Check if the character is already in the vector
11             // 'auto it' stores the iterator returned by find_if
12             // determines if a character is already in the charFreq vector.
13             auto it = find_if(
14                 charFreq.begin(), charFreq.end(),
15                 [&](const pair<char, int>& p) { return p.first == s[i]; });
16
17             // If the character is not found, cal the freq and add to vector
18             if (it == charFreq.end()) {
19                 freq = count(s.begin(), s.end(), s[i]);
20                 charFreq.push_back({s[i], freq});
21             }
22         }
23
24         // Sort the vector by freq in descending order using lambda function
25         sort(charFreq.begin(), charFreq.end(),
26             [](const pair<char, int>& a, const pair<char, int>& b) {
27                 // Compare by frequency in descending order
28                 return a.second > b.second;
29             });
30
31         // Append vector into String
32         for (const auto& p : charFreq) {
33             // Append character 'p.first' 'p.second' times
34             // This makes sure that each char appearance = frequency
35             sorted.append(p.second, p.first);
36         }
37         return sorted;
38     }
39 };

```