

```

1  package trieTree;
2
3  /* Trie树的构建、查找 */
4
5  import java.util.Arrays;
6  import java.util.HashSet;
7
8  class TrieTree {
9
10     private class TrieNode {
11
12         HashSet<String> stringSet;
13         TrieNode[] nextNodes;
14
15         TrieNode() {
16             nextNodes = new TrieNode[26];    //只包括小写的a-z
17         }
18     }
19
20     private TrieNode rootNode;
21
22     public void insertString(String s) {
23
24         if (s == null || s.length() == 0) {
25             return;
26         }
27
28         s = s.toLowerCase();
29
30         char[] sArray = s.toCharArray();
31         Arrays.sort(sArray);
32
33         if (rootNode == null) {
34             rootNode = new TrieNode();
35         }
36
37         TrieNode tempNode = rootNode;
38         for (int i = 0; i < sArray.length; i++) {
39             if (tempNode.nextNodes[sArray[i] - 'a'] == null) {
40                 tempNode.nextNodes[sArray[i] - 'a'] = new TrieNode();
41             }
42             tempNode = tempNode.nextNodes[sArray[i] - 'a'];
43
44             if (i == sArray.length - 1) {
45                 if (tempNode.stringSet == null) {
46                     tempNode.stringSet = new HashSet<>();
47                 }
48                 tempNode.stringSet.add(s);
49             }
50         }
51     }
52
53     public boolean searchString(String s) {
54
55         if (s == null || s.length() == 0) {
56             return rootNode == null;
57         }
58
59         if (rootNode == null) {
60             return false;
61         }
62
63         s = s.toLowerCase();
64         char[] sArray = s.toCharArray();
65         Arrays.sort(sArray);
66         TrieNode tempNode = rootNode;
67
68         for (int i = 0; i < sArray.length; i++) {
69             if (tempNode.nextNodes[sArray[i] - 'a'] == null) {
70                 return false;
71             }
72             tempNode = tempNode.nextNodes[sArray[i] - 'a'];
73         }

```

```
74         return tempNode.stringSet != null && tempNode.stringSet.contains(s);
75     }
76 }
77
78 public static void main(String[] args) {
79     TrieTree trieTree = new TrieTree();
80
81     trieTree.insertString("hehao");
82     trieTree.insertString("ehaoh");
83     trieTree.insertString("haohe");
84     trieTree.insertString("aoheh");
85     trieTree.insertString("facri");
86     trieTree.insertString("et");
87     trieTree.insertString("oheha");
88
89     boolean result;
90
91     result = trieTree.searchString("hehao");
92     result = trieTree.searchString("et");
93     result = trieTree.searchString("asglajs");
94     result = trieTree.searchString("oaehh");
95
96     System.out.println("haha");
97 }
98 }
99 }
```