

```
1  /*Author: Bochen (mddboc@foxmail.com)
2  Last Modified: Tue Apr 10 22:28:44 CST 2018*/
3
4  /*Given a roman numeral, convert it to an integer.Given a roman numeral, convert it
   to an integer.
5
6      Input is guaranteed to be within the range from 1 to 3999.*/
7
8
9  import java.lang.System;
10 import java.util.HashMap;
11
12
13 public class Main
14 {
15     public static void main(String[] args)
16     {
17         /*String[] input = {"a", "b"};
18
19         Solution solution = new Solution();
20
21         String receiveFlag = solution.longestCommonPrefix(input);
22
23         System.out.println("haha");*/
24
25     }
26
27
28 }
29
30
31 class Solution {
32     public int romanToInt(String s) {
33
34         if ( s == null || s.length() == 0)
35         {
36             return 0;
37         }
38
39         HashMap<Character, Integer> hashMap = new HashMap<Character, Integer>(10);
40         this.putHashMap(hashMap);
41
42         if ( s.length() == 1)
43         {
44             return hashMap.get(s.charAt(0)).intValue();
45         }
46
47
48         return romanToIntForLengthMoreThanOne(s, hashMap);
49     }
50
51     private void putHashMap(HashMap<Character, Integer> hashMap)
52     {
53         hashMap.put('I',1);
54         hashMap.put('V',5);
55         hashMap.put('X',10);
56         hashMap.put('L',50);
57         hashMap.put('C',100);
58         hashMap.put('D',500);
59         hashMap.put('M',1000);
60     }
61
62     private int romanToIntForLengthMoreThanOne(String s, HashMap<Character, Integer>
        hashMap)
63     {
64         int sLength = s.length();
65
66         int returnValue = new Integer(0);
67
68         for (int i = 0; i < sLength - 1; i++)
69         {
70             int currentValue = hashMap.get(s.charAt(i)).intValue();
71             int nextValue = hashMap.get(s.charAt(i+1)).intValue();
```

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72
73         if ( currentValue < nextValue )
74         {
75             returnValue -= currentValue;
76         }
77         else
78         {
79             returnValue += currentValue;
80         }
81     }
82
83     returnValue += hashMap.get(s.charAt(sLength - 1)).intValue();
84
85     return returnValue;
86 }
87 }
```