

```

1 //Priuyankaa Balaji
2 //ACSL Contest 2 2019 - 2020
3 //Intermediate Division
4 //ACSL Sameness Factor
5
6 import java.util.*;
7 import java.io.File;
8 import java.io.FileNotFoundException;
9 import java.util.Scanner;
10 public class PriuyankaaB201920C1SamenessFactorTRIAL4 {
11
12     public static String alphabet = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";
13
14     public static int samenessFactor(String str1, String str2)
15     {
16         int i;
17         int samenessfactor = 0;
18         String smaller = str1;
19         String greater = str2;
20         if(str1.length() > str2.length())
21         {
22             greater = str1;
23             smaller = str2;
24         }
25
26         for(i = 0; i<smaller.length(); i++)
27         {
28             char s1 = str1.charAt(i);
29             char s2 = str2.charAt(i);
30             int diff = alphabet.indexOf(s1)-alphabet.indexOf(s2);
31             samenessfactor += diff;
32         }
33         for(int j =i; j<greater.length();j++)
34         {
35             samenessfactor +=1;
36         }
37         return samenessfactor;
38     }
39
40
41
42     public static boolean commonletterdiff(String str1, String str2)
43     {
44         ArrayList<Character> comChar = new ArrayList<Character>();
45         for(int i=0; i< str1.length(); i++)
46         {
47             if((i+1)<str2.length() && str1.charAt(i) == str2.charAt(i+1))
48             {
49                 comChar.add(str1.charAt(i));
50             }
51
52
53         }
54
55
56
57         for(int i=0; i<str2.length(); i++)
58         {
59             if((i+1)<str1.length() && str2.charAt(i) == str1.charAt(i+1))
60             {
61                 comChar.add(str2.charAt(i));
62             }
63
64
65         }
66
67
68
69         if(comChar.size(>0)

```



```

139
140         commonletter = commonletterdiff(str1, str2);
141
142
143     }
144
145
146     if(i<str2.length() && (i+1)<str1.length() && str2.charAt(i)==
147     str1.charAt(i+1))
148     {
149         str1 = str1.substring(0,i) + str1.substring(i+1);
150
151         for(int k=0; k<str1.length(); k++)
152         {
153             if(k<str2.length() && str1.charAt(k) == str2.charAt(k))
154             {
155                 str1 = str1.substring(0,k) + "#" +str1.substring(k+1);
156                 str2 = str2.substring(0,k) + "#" +str2.substring(k+1);
157             }
158         }
159         str1 = str1.replaceAll("#", "");
160         str2 = str2.replaceAll("#", "");
161         commonletter = commonletterdiff(str1, str2);
162
163
164
165     }
166
167
168
169
170
171
172     }
173
174
175
176
177     }
178
179     //System.out.println("str1: " +str1);
180     //System.out.println("str2: " +str2);
181     System.out.println(samenessFactor(str1, str2));
182
183
184     }
185
186
187     }
188
189
190
191
192
193     catch (FileNotFoundException e) {
194         System.out.println("Unable to locate " + filename + ".");
195         System.exit(1); // 1 indicates error
196     }
197
198     }
199
200
201
202
203
204     }
205

```