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//Anand Vinod
//ACSL Contest 2 2019 - 2020
//Junior Division
//String Differences
import java.util.*;
import java.lang.*;
import java.io.*;

public class AnandV201920_C2StringDifferences {
    public static String reverse(String c) {
        String x = "";

        for (int i = c.length(); i > 0; i--)
            x += c.substring(i - 1, i);
        return x;
    }

    public static String[] rule1(String[] a) {

        String alp = a[0];
        String bet = a[1];

        for (int i = 0; i < alp.length() - 1; i++) {

            if (alp.substring(i, i + 1).equals(alp.substring(i + 1, i + 2))) {

                alp = alp.substring(0, i) + alp.substring(i + 1);

            }

        }

        for (int i = 0; i < bet.length() - 1; i++) {

            if (bet.substring(i, i + 1).equals(bet.substring(i + 1, i + 2))) {

                bet = bet.substring(0, i) + bet.substring(i + 1);

            }

        }

        String[] ret = { alp, bet };
        return ret;
    }

    public static String[] rule2(String[] a) {

        String[] alp = a[0].split("");
        String[] bet = a[1].split("");
        String[] vow = { "A", "E", "I", "O", "U" };
        int i = -1;
        for (String test : alp) {
            i++;

            for (String check : vow) {

                if (test.equals(check) && i != 0) {
                    alp[i] = "0";
                }

            }

        }
        i = -1;
        for (String test : bet) {
            i++;

            for (String check : vow) {

                if (test.equals(check) && i != 0) {

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        bet[i] = "0";
    }

    }
}
String alph = "";
String beta = "";

for (int j = 0; j < alp.length; j++) {
    if (!(alp[j].equals("0"))) {
        alph += alp[j];
    }
}
for (int j = 0; j < bet.length; j++) {
    if (!(bet[j].equals("0"))) {
        beta += bet[j];
    }
}

String[] ret = { alph, beta };
return ret;
}

public static String[] rule3(String[] a) {
    String[] alp = a[0].split("");
    String[] bet = a[1].split("");

    int len = Math.min(alp.length, bet.length);

    for (int i = 0; i < len; i++) {

        if (alp[i].equals(bet[i])) {
            alp[i] = "0";
            bet[i] = "0";
        }
    }

    String alph = "";
    String beta = "";

    for (int j = 0; j < alp.length; j++) {
        if (!(alp[j].equals("0"))) {
            alph += alp[j];
        }
    }
    for (int j = 0; j < bet.length; j++) {
        if (!(bet[j].equals("0"))) {
            beta += bet[j];
        }
    }

    String[] retVal = { alph, beta };

    return retVal;
}

public static String[] rule4(String[] a) {
    String alp = reverse(a[0]);
    String bet = reverse(a[1]);
    String[] retValE = { alp, bet };
    String[] b = rule3(retValE);
    alp = reverse(b[0]);
    bet = reverse(b[1]);
    String[] retVal = { alp, bet };

    return retVal;
}
}

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public static int alpVal(String a) {
    String b = a.toLowerCase();
    ArrayList<Integer> val = new ArrayList<Integer>();
    for (int i = 1; i <= 27; i++)
        val.add(i);
    String[] alp = { "a", "b", "c", "d", "e", "f", "g", "h", "i", "j", "k", "l", "m", "n",
"o", "p", "q", "r", "s",
        "t", "u", "v", "w", "x", "y", "z" };

    HashMap<String, Integer> guide = new HashMap<>();

    for (int i = 0; i < alp.length; i++)
        guide.put(alp[i], val.get(i));

    int value = guide.get(b);

    return value;
}

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public static String rule5(String[] a) {
    String alp = a[0];
    String bet = a[1];
    boolean b = true;
    if (alp.length() == bet.length()) {
        for (int i = 0; i < alp.length(); i++) {
            String test = alp.substring(i, i + 1);
            String test2 = bet.substring(i, i + 1);
            if (alpVal(test) < alpVal(test2))
                return alp;
            else if (alpVal(test) > alpVal(test2))
                return bet;
        }
        return alp;
    } else {
        if (alp.length() > bet.length())
            return bet;
        else
            return alp;
    }
}

```

```

public static void main(String[] Args) throws IOException {
    File file = new File("C:\\Users\\Anand Vinod\\Desktop\\input.txt");
    Scanner s = new Scanner(file);

    while (s.hasNextLine()) {

        String[] a = s.nextLine().split(" ");
        System.out.println(rule5(rule4(rule3(rule2(rule1(a))))));

    }
}
}

```