```
 1  /* Problem 3--The Babel Fish
 2      This was also pretty straightforward.  You just have to be meticulous
 3      about what is a vowel. */
 4
 5  import java.io.*;
 6  import java.util.*;
 7
 8  public class prob3 {
 9
10   private static BufferedReader in; //better than Scanner for
11   private static PrintWriter out; //character-by-character read
12
13   public static void main (String[] args) throws Exception {
14
15     in = new BufferedReader (new FileReader ("prob3.in"));
16     out = new PrintWriter ("prob3.out");
17     int ch=' ', pc;
18     String vowelstr="";
19     while (true) {
20      pc = ch; //Keep track of previous char
21      ch = in.read(); //Get next one
22      if (ch==-1) break; //EOF
23      if (IsVowel (ch,pc)) vowelstr += (char)ch; //Add to vowel string
24      else { //If consonant
25       if (vowelstr.length() > 0) { //Add Alfalfa to the string
26        vowelstr = vowelstr + "lf" + vowelstr.toLowerCase ();
27        out.print (vowelstr); //print vowelstr
28        vowelstr = "";
29       }
30       out.print ((char)ch); //print character
31      }
32     }
33     in.close ();
34     out.close ();
35   }
36
37   //Tests whether a character is a vowel
38   public static boolean IsVowel (int ch, int pc) throws Exception {
39
40     if (ch=='A' || ch=='E' || ch=='I' || ch== 'O' || ch=='U' ||
41           ch=='a' || ch=='e' || ch=='i' || ch== 'o' || ch=='u')
42      return true; //obvious vowel
43     if ((ch=='Y' || ch=='y') && //a Y preceded by a letter
44        (pc>='A' && pc <='Z' || pc >= 'a' && pc <='z')) return true;
45     if ((ch=='W' || ch=='w') && //a W preceded by a regular vowel
46       (pc=='A' || pc=='E' || pc=='I' || pc== 'O' || pc=='U' ||
47           pc=='a' || pc=='e' || pc=='i' || pc== 'o' || pc=='u'))
48      return true;
49     return false; //everything else
50   }
51  }
52
```