

```
1  /* Problem 6--Wordle
2     Storing the dictionary is straightforward, and I used the (at one
3     time) official list of acceptable words.
4     Then for each game we go through each word in the dictionary and see
5     if it matches the grading. */
6
7  import java.io.*;
8  import java.util.*;
9
10 public class prob6 {
11
12     private static Scanner in;
13     private static PrintWriter out;
14     private static int dictsz;
15     private static String[] dict;
16     private static int cs;
17     private static String[] words;
18     private static String[] grades;
19     private static int g;
20
21     public static void main (String[] args) throws Exception {
22
23         cs = 1;
24         in = new Scanner (new File ("prob6.in"));
25         out = new PrintWriter ("prob6.out");
26         dictsz = Integer.parseInt (in.nextLine());
27         dict = new String [dictsz]; //Read in the dictionary
28         for (int i=0; i < dictsz; i++)
29             dict[i] = in.nextLine();
30         in.nextLine();
31         while (true) {
32             g = Integer.parseInt (in.nextLine());
33             if (g==0) break; //Read in a Wordle game
34             words = new String[g];
35             grades = new String[g];
36             for (int i=0; i < g; i++) {
37                 words[i] = in.nextLine();
38                 grades[i] = in.nextLine();
39             }
40             Process (); //Process the game
41         }
42         in.close ();
43         out.close();
44     }
45
46     /* This method simply runs through the dictionary and see if it is
47        compatible with the guesses. */
48     public static void Process () {
49
50         out.printf ("Case %d:\r\n",cs++);
51         for (int i=0; i < dictsz; i++) { //All the words in the dictionary
52             boolean good=true;
53             for (int j=0; j < g && good; j++) //Al the guesses
54                 good = match (words[j],dict[i]).equals (grades[j]);
55             if (good) out.printf ("%s\r\n",dict[i]);
56         }
57         out.printf ("\r\n");
58     }
59
60     /* This methods grades a guess with respect to the "correct" word
61        and returns a string with Bs, Gs, and Ys. */
62     public static String match (String guess, String correct) {
63
64         char[] guessarr = guess.toCharArray(); //Convert everything to char
```

```
65 char[] correctarr = correct.toCharArray();
66 char[] gradearr = "BBBBB".toCharArray();
67 for (int i=0; i < 5; i++) //Look for exact answers.
68     if (guessarr[i]==correctarr[i]) {
69         gradearr[i] = 'G'; //Grade is Green.
70         correctarr[i] = '@'; //Eliminate character in correct and guess
71         guessarr[i] = '#';
72     }
73 for (int i=0; i < 5; i++)
74     for (int j=0; j < 5; j++) //Look for letters in the wrong place
75         if (guessarr[i]==correctarr[j]) {
76             gradearr[i] = 'Y'; //Put a yellow in there and remove letter
77             correctarr[j] = '@';
78             guessarr[i] = '#';
79         }
80 return new String (gradearr);
81 }
82 }
83 }
```