

```
import java.util.Scanner;
```

```
import java.util.Arrays;
```

```
class Lab1{
```

```
    public static String[] ordering(String txt){
```

```
        // Splitting the string into an string array containing each word.
```

```
        String[] txt_arr = txt.split(" ");
```

```
        // Sort the array in alphabetical order.
```

```
        Arrays.sort(txt_arr);
```

```
        return txt_arr;
```

```
    }
```

```
    public static String piglatin(String word){
```

```
        char wrd_0 = word.charAt(0);
```

```
        // Check if first character of the word is a vowel.
```

```
        if(wrd_0=='a' || wrd_0=='A' || wrd_0=='e' || wrd_0=='E' || wrd_0=='i'  
|| wrd_0=='I' || wrd_0=='o' || wrd_0=='O' || wrd_0=='u' || wrd_0=='U'){
```

```
            word = word+"yay";
```

```
        }else{
```

```
            word = word.substring(1)+wrd_0+"ay";
```

```
        }
```

```
        return word;
```

```
    }
```

```

public static String reverse(String word){
    int last_ind = word.length()-1;
    // Take the string between the first and last letters of the word.
    String mid_str = word.substring(1, last_ind);
    // Switch the first and last letters of the word.
    String reverse_wrd = word.charAt(last_ind) + mid_str +
word.charAt(0);

    return reverse_wrd;
}

```

```

public static String mix(String word_1, String word_2){
    int word_1_len = word_1.length();
    int word_1_split_len = word_1.length()/2;
    int word_2_len = word_2.length();
    int word_2_split_len = word_2.length()/2;

    // Split each word into two parts, at around the middle.
    String word_1a = word_1.substring(0, word_1_split_len);
    String word_1b = word_1.substring(word_1_split_len);

    String word_2a = word_2.substring(0, word_2_split_len);
    String word_2b = word_2.substring(word_2_split_len);

    return word_1a + word_2b + " " + word_2a + word_1b;
}

```

```
public static void main(String[] args){  
    // Taking input string from user.  
    Scanner input = new Scanner(System.in);  
    // Save the input.  
    String txt = input.nextLine();  
  
    // Part 1  
    // Jonathan Bauer  
    String[] ordered_arr = ordering(txt);  
    String ordered_str = String.join(" ", ordered_arr);  
    System.out.println("Part 1: " + ordered_str);  
  
    // Part 2  
    // Jonathan Bauer  
    String piglatin_str = piglatin(ordered_arr[0]) + " " +  
    piglatin(ordered_arr[1]);  
    System.out.println("Part 2: " + piglatin_str);  
  
    // Part 3  
    // Jonathan Bauer  
    String reverse_str = reverse(ordered_arr[1])+"  
    "+reverse(ordered_arr[2]);  
    System.out.println("Part 3: " + reverse_str);  
}
```

```
    // Part 4
    // Jonathan Bauer
    String mix_str = mix(ordered_arr[3], ordered_arr[4]);
    System.out.println("Part 4: " + mix_str);
}
}
```