import java.io.\*; // Program to sort words in decending order

public class Sort\_Sentences

{

static BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

String word[];

char ch;

int n;

String str,temp; // Data Member

public Sort\_Sentences() { // Default Constructor

word = new String[50];

ch='\u0000';

n=0;

str=temp="";

}

public void input()throws IOException { // User Defind Function

System.out.println("Enter the sentence and end with fullstop: ");

str = br.readLine().trim();

str.toLowerCase();

}

public void Sen\_sort() { // User Defind Function

int a,i,j,c,l,k; // local Variable

l = str.length();

for(a=0;a<l;a++) {

if(str.charAt(a)!=' ' && str.charAt(a)!='.') {

temp = temp + str.charAt(a);

} else {

word[n++] = temp;

temp="";// reset

}

} // end of loop

for(i=0;i<n-1;i++) {

for(j=(i+1);j<n;j++) {

if(word[i].length()<word[j].length()) {

temp = word[i];

word[i] = word[j];

word[j] = temp;

}

if(word[i].length()==word[j].length()) {

if(word[i].compareTo(word[j])>0) {

temp = word[i];

word[i] = word[j];

word[j] = temp;

}

}

} // end of Loop 1

} // end of loop 2

}

public void show() { // User Defind Function

System.out.println("\nThe word present in sentence are arranged in decending order.");

for(int k=0;k<n;k++) {

ch = word[k].charAt(0);

ch = Character.toUpperCase(ch);

word[k] = ch + word[k].substring(1);

System.out.print(word[k]+" ");

} // End of k loop

System.out.print("."); // To be printed at end of sentence.

}

public static void main()throws IOException {

Sort\_Sentences obj = new Sort\_Sentences();

obj.input();

obj.Sen\_sort(); // Method call

obj.show();

}

}