Lexicographically Ordered Sentences

A sentence is said to be lexicographically ordered if the words of the sentence is either in lexicographically ascending or lexicographically descending order. For example, “apple is red” is in lexicographically ascending order and “zebra is animal” is in lexicographically descending order. Given ‘n’ sentences, write a C++ program to print lexicographically ordered sentences.

Hint

When cin and getline are mixed, we have to clear the buffer using ignore function.

For example,

cin>>n;

cin.ignore();

getline(cin,s);

This problem can be quickly solved with string in STL. STL is Standard Template Library that has got generic functions, classes and algorithms.

- To use string, add #include<string>
- We can create object and array of objects for string
- To read a string s with spaces use getline(cin, s);
- A string object can be intialized to empty as string s="";
- length is a member function of string that gives the number of characters in it
- You can access ith character of a string object s as s[i] – Subscript operator is overloaded
- A character ‘c’ can be added to a string ‘s’ by s=s+c;
- Two strings s1 and s2 can be compared using <, > and ==

Sample Code

```
int main()

{

string sen1;

string w1,w2;

sen1="";

sen1=sen1+'a';

getline(cin,sen1);

cin>>w1>>w2;

int len=sen1.length();

if(w1<w2)

cout<<"W1 is lexicographically less than w2";

}
```

Input Format

Problem Statistics

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Solved By: 0

View leaderboard

First line contains the number of sentences, n

Next ‘n’ lines contain the sentences

Output Format

Print the sentences that is in some lexicographical order

Theme: Terminal Language Python Font size: 18

```
1
2  n = int(input())
3  sentences = [input().split() for i in range(n)]
4  for s in sentences:
5      if all([s[i]>s[i+1] for i in range(len(s)-1)]) or all([s[i]
6          print(" ".join(s))
7
```

Use custom I/O

Run Code Save Code Pause Test

Status:

Success your code has passed all test cases!!