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Test Name: Mock Test

Taken On: 23 Jan 2024 03:51:50 IST

Time Taken: 16 min 28 sec/ 30 min

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Invited by: Ankush

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Skills Score:

Tags Score:

- Algorithms 95/95
- Arrays 95/95
- Core CS 95/95
- Data Structures 95/95
- Easy 95/95
- Sorting 95/95
- Strings 95/95
- problem-solving 95/95

100%

95/95

scored in **Mock Test** in 16 min 28 sec on 23 Jan 2024 03:51:50 IST

Recruiter/Team Comments:

No Comments.

	Question Description	Time Taken	Score	Status
Q1	Big Sorting > Coding	16 min 23 sec	95/ 95	✓

QUESTION 1

✓

Correct Answer

Score 95

Big Sorting > Coding

Sorting

Strings

Algorithms

Easy

Data Structures

Arrays

problem-solving

Core CS

QUESTION DESCRIPTION

Consider an array of numeric strings where each string is a positive number with anywhere from **1** to **10<sup>6</sup>** digits. Sort the array's elements in *non-decreasing*, or ascending order of their integer values and return the sorted array.

**Example**  
*unsorted* = ['1', '200', '150', '3']

Return the array ['1', '3', '150', '200'].

### Function Description

Complete the *bigSorting* function in the editor below.

*bigSorting* has the following parameter(s):

- *string unsorted[n]*: an unsorted array of integers as strings

### Returns

- *string[n]*: the array sorted in numerical order

### Input Format

The first line contains an integer, *n*, the number of strings in *unsorted*.

Each of the *n* subsequent lines contains an integer string, *unsorted[i]*.

### Constraints

- $1 \leq n \leq 2 \times 10^5$
- Each string is guaranteed to represent a positive integer.
- There will be no leading zeros.
- The total number of digits across all strings in *unsorted* is between 1 and  $10^6$  (inclusive).

### Sample Input 0

```
6
31415926535897932384626433832795
1
3
10
3
5
```

### Sample Output 0

```
1
3
3
5
10
31415926535897932384626433832795
```

### Explanation 0

The initial array of strings is

*unsorted* = [31415926535897932384626433832795, 1, 3, 10, 3, 5]. When we order each string by the real-world integer value it represents, we get:

$$1 \leq 3 \leq 3 \leq 5 \leq 10 \leq 31415926535897932384626433832795$$

We then print each value on a new line, from smallest to largest.

### Sample Input 1

```
8
1
2
100
12303479849857341718340192371
3084193741082937
3084193741082938
111
200
```

### Sample Output 1

```
1
2
100
111
200
3084193741082937
3084193741082938
12303479849857341718340192371
```

## CANDIDATE ANSWER

Language used: **C++14**

```
1
2  /*
3   * Complete the 'bigSorting' function below.
4   *
5   * The function is expected to return a STRING_ARRAY.
6   * The function accepts STRING_ARRAY unsorted as parameter.
7   */
8
9 bool sortlength(const string& a, const string& b){
10     if (a.size() == b.size()) {
11         return a < b;
12     }
13     return a.size() < b.size();
14 }
15
16 vector<string> bigSorting(vector<string> unsorted) {
17     vector<string> sorted(unsorted.size());
18
19     sort(unsorted.begin(), unsorted.end(), sortlength);
20
21     for (unsigned int i = 0; i<unsorted.size()-1; i++){
22         if(unsorted.at(i).size()==unsorted.at(i+1).size() &&
23 unsorted.at(i)>unsorted.at(i+1)){
24             swap(unsorted.at(i), unsorted.at(i+1));
25         }
26     }
27
28     return unsorted;
29 }
```

TESTCASE	DIFFICULTY	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 1	Easy	Sample case	✔ Success	0	0.0374 sec	8.81 KB
Testcase 2	Medium	Hidden case	✔ Success	10	0.0063 sec	8.82 KB
Testcase 3	Medium	Hidden case	✔ Success	10	0.0252 sec	9.91 KB
Testcase 4	Hard	Hidden case	✔ Success	15	0.1391 sec	10.9 KB
Testcase 5	Hard	Hidden case	✔ Success	15	0.0405 sec	10.7 KB
Testcase 6	Hard	Hidden case	✔ Success	15	0.0249 sec	10.2 KB
Testcase 7	Hard	Hidden case	✔ Success	15	0.1214 sec	12.8 KB
Testcase 8	Hard	Hidden case	✔ Success	15	0.0936 sec	26.1 KB
Testcase 9	Easy	Sample case	✔ Success	0	0.0096 sec	8.77 KB

