

## Problem Statement

You are given a string  $S$ .

$S$  contains alphanumeric characters only.

## Sorting

Your task is to sort the string  $S$  in the following manner:

- All sorted *lowercase letters* are ahead of *uppercase letters*.
- All sorted *uppercase letters* are ahead of digits.
- All sorted *odd digits* are ahead of sorted *even digits*.

## Input Format

A single line of input contains the string  $S$ .

## Constraints

$$0 < \text{len}(S) < 1000$$

## Output Format

Output the sorted string  $S$ .

## Sample Input

```
Sorting1234
```

## Sample Output

```
ginortS1324
```

## Note:

- a) Using `join`, `for` or `while` anywhere in your code, even as substrings, will result in a score of `0`.
- b) You can only use *one* `sorted` function in your code. A `0` score will be awarded for using `sorted` more than once.

**Hint:** Success is not the key, but *key* is success.