Standardize Mobile Number Using Decorators

97/115 challenges solved

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Problem Submissions Leaderboard Editorial

Let's dive into decorators! You are given N mobile numbers. Sort them in ascending order then print them in the standard format shown below:

```
+91 xxxxx xxxxx
```

The given mobile numbers may have $+91$, 91 or 0 written before the actual 10 digit number. Alternatively, there may not be any prefix at all.

Input Format

The first line of input contains an integer N, the number of mobile phone numbers.

N lines follow each containing a mobile number.

Output Format

Print N mobile numbers on separate lines in the required format.

Sample Input

```
3
07895462130
919875641230
9195969878
```

Sample Output

```
+91 78954 62130
+91 91959 69878
+91 98756 41230
```

Concept

Like most other programming languages, Python has the concept of closures. Extending these closures gives us decorators, which are an invaluable asset. You can learn about decorators in 12 easy steps here.

To solve the above question, make a list of the mobile numbers and pass it to a function that sorts the array in ascending order. Make a decorator that standardizes the mobile numbers and apply it to the function.

Change Theme Language Python 3

```
1  def wrapper(f):
2      def fun(l):
3          # complete the function
```

```
        # Process numbers to standard format
        formatted = []
        for num in l:
            # Remove any existing +91 or 0 prefixes
            clean_num = num[-10:]  # Take last 10 digits
            formatted.append(f"+91 {clean_num[:5]} {clean_num[5:]}")
        return f(formatted)
    return fun

@wrapper…
```

EMACS Line: 1 Col: 1

Upload Code as File | Test against custom input | Run Code | Submit Code

You have earned 30.00 points!

97/115 challenges solved.

84%

Python ★★★★★

Congratulations

You solved this challenge. Would you like to challenge your friends?

Next Challenge

Test case 0

Test case 1

Test case 2

Compiler Message

Success

Input (stdin)

Download

```
3
```

Test case 3

Test case 4

Test case 5

Test case 6

```
07895462130
919875641230
9195969878
```

Expected Output

Download

```
+91 78954 62130
+91 91959 69878
```