

# **Validating Email Addresses With a Filter**



Problem Submissions Leaderboard Editorial △

You are given an integer  $m{N}$  followed by  $m{N}$  email addresses. Your task is to print a list containing only valid email addresses in lexicographical order.

Valid email addresses must follow these rules:

- It must have the username@websitename.extension format type.
- The username can only contain letters, digits, dashes and underscores [a-z], [A-Z], [0-9], [--].
- The website name can only have letters and digits [a-z], [A-Z], [0-9].
- The extension can only contain letters [a-z], [A-Z].
- The maximum length of the extension is 3.

#### Concept

A filter takes a function returning True or False and applies it to a sequence, returning a list of only those members of the sequence where the function returned True. A Lambda function can be used with filters.

Let's say you have to make a list of the squares of integers from  $\bf 0$  to  $\bf 9$  (both included).

```
>> l = list(range(10))
>> l = list(map(lambda x:x*x, l))
```

Now, you only require those elements that are greater than 10 but less than 80.

```
>> l = list(filter(lambda x: x > 10 and x < 80, l))
```

Easy, isn't it?

### Example

Complete the function fun in the editor below.

fun has the following paramters:

• string s: the string to test

### Returns

• boolean: whether the string is a valid email or not

#### **Input Format**

The first line of input is the integer  $m{N}$ , the number of email addresses.

N lines follow, each containing a string.

#### Constraints

Each line is a non-empty string.



```
Sample Input

3
lara@hackerrank.com
brian-23@hackerrank.com
britts_54@hackerrank.com

Sample Output

['brian-23@hackerrank.com', 'britts_54@hackerrank.com', 'lara@hackerrank.com']
```

```
Change Theme Language Python 3
                                                                             1
    import re
 1
 2
     def fun(s):
 3
         # return True if s is a valid email, else return False
         patten = "^[a-zA-Z0-9]-[]+@[A-Za-z0-9]+[].][a-zA-Z]{1,3}$"
 4
         return re.search(patten,s)!=None
 5
 6
 7
     def filter_mail(emails):
8
         return list(filter(fun, emails))
9
     if __name__ == '__main__':
10
11
         n = int(input())
12
         emails = []
         for _ in range(n):
13
             emails.append(input())
14
15
16
    filtered_emails = filter_mail(emails)
17
    filtered_emails.sort()
18
     print(filtered_emails)
```

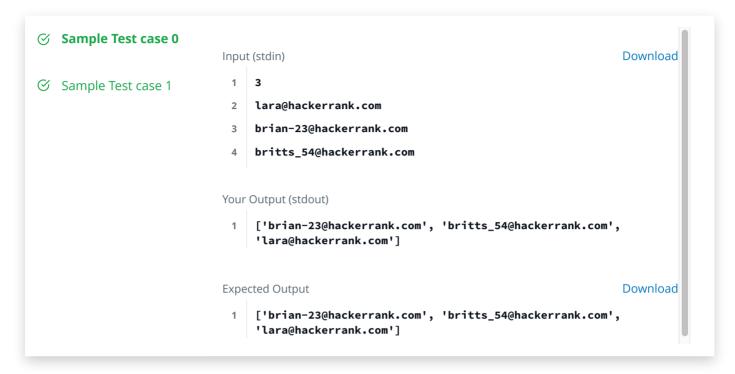
.↑. Upload Code as File Test against custom input

Run Code

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## **Congratulations!**

You have passed the sample test cases. Click the submit button to run your code against all the test cases.



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