問題描述 :

Goal: recognize the strings which are valid email address, sort them by (i) user name; and (ii) domain name+user-name.

upper and lower cases are regarded as the same.

Basic requirement: at least 5 string functions, correctly recognition

Format of email:

- Account@Domain
- Account: at least one identifier concatenated by dot
- Domain: the same as account
- Identifier: a string consisting of English letters and digits and underline

輸入說明：

The input consists of a number of test cases.

Input: a set of strings

Input format:

```
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TeST@gMail.com
test_two@gmail.com
123456@gmail.com
test@@gmail.com
testgmail.com
test@a@gmail.com
```

輸出說明：

Output: a set of strings with valid or NOT valid. Sort by username and domain.

Output format:

```
TeST@gMail.com                  => valid
test_two@gmail.com             => valid
123456@gmail.com                => valid
test@@gmail.com                 => NOT valid
testgmail.com                => NOT valid
test@a@gmail.com                => NOT valid
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Sort by Username:
123456@gmail.com
```

TeST@gMail.com
test_two@gmail.com

Sort by Domain:
123456@gmail.com
TeST@gMail.com
test_two@gmail.com