

PROBLEM: find-common-characters

<https://leetcode.com/problems/find-common-characters/>

Given an array `A` of strings made only from lowercase letters, return a list of all characters that show up in all strings within the list (**including duplicates**). For example, if a character occurs 3 times in all strings but not 4 times, you need to include that character three times in the final answer.

You may return the answer in any order.

```
def commonChars(self, A):
```

```
    ans = list(A[0])
```

```
    for word in A:
```

```
        check= []
```

```
        for c in word:
```

```
            if c in ans:
```

```
                check.append(c)
```

```
                ans.remove(c)
```

```
    # print(ans)
```

```
    # print(check)
```

```
    ans = check
```

```
    return check
```

The screenshot shows a web browser with multiple tabs. The active tab is 'leetcode.com/problems/find-common-characters/'. The page displays the problem description for '1002. Find Common Characters', which is marked as 'Easy'. The description states: 'Given an array `A` of strings made only from lowercase letters, return a list of all characters that show up in all strings within the list (**including duplicates**). For example, if a character occurs 3 times in all strings but not 4 times, you need to include that character three times in the final answer. You may return the answer in any order.'

Two examples are provided:

Example 1:
Input: ["bella", "label", "roller"]
Output: ["e", "l", "l"]

Example 2:
Input: ["cool", "lock", "cook"]
Output: ["c", "o"]

A note specifies: '1. 1 <= A.length <= 100', '2. 1 <= A[i].length <= 100', and '3. A[i][j] is a lowercase letter'.

On the right side, a Python solution is shown in an online compiler. The code is as follows:

```
1 class Solution(object):
2     def commonChars(self, A):
3         ans = list(A[0])
4         for word in A:
5             check= []
6             for c in word:
7                 if c in ans:
8                     check.append(c)
9                     ans.remove(c)
10            # print(ans)
11            # print(check)
12        ans = check
13        return check
14
15
```

The compiler output shows the test case '["bella", "label", "roller"]' is 'Accepted' with a runtime of 16 ms. The 'Your input' is '["bella", "label", "roller"]'. The 'stdout' shows the intermediate steps: '["b", "e", "l", "l", "a"]', '["l", "a", "b", "e", "l"]', and '["a", "b"]'. The final 'Output' is '["l", "l", "e"]'.