

Please finish the below coding test, upload to public **GitHub**, and send us back the **GitHub link** and also attach **the zip package** of your code?

Notes: If you're from internal HSBC, please submit code to HSBC internal GitHub and send us back the link

Appreciate that the code will meet the requirements:

1. Well-structure maven project
2. Proper unit test with high test coverage
3. Consider OO with proper design pattern
4. Use Java 11 or above if possible (advantage option)
4. Use some new feature from Java8 or above if possible (advantage option)

**** IMPORTANT ****

Please do **NOT** put any wording onto github related to HSBC as cyber security issue, otherwise it would be considered as **FAILED** the code test.

For a given string that only contains alphabet characters a-z, if 3 or more consecutive characters are identical, remove them from the string. Repeat this process until there is no more than 3 identical characters sitting besides each other.

Example:

Input: aabccccbbad

Output:

-> aabbbbad

-> aaad

-> d

#Stage 2 - advanced requirement

Instead of removing the consecutively identical characters, replace them with a single character that comes before it alphabetically.

Example:

ccc -> b

bbb -> a

Input: abccccbad

Output:

-> abbbbad, ccc is replaced by b

-> aaad, bbb is replaced by a

-> d