✏ Practice Arena

Practice problems aimed to improve your coding skills.

📂 PRACTICE-02_SCAN-PRINT

📂 PRACTICE-03_TYPES

📂 LAB-PRAC-02_SCAN-PRINT

📂 LAB-PRAC-01

📂 PRACTICE-04_COND

📂 BONUS-PRAC-02

📂 LAB-PRAC-03_TYPES

📂 PRACTICE-05_COND-LOOPS

📂 LAB-PRAC-04_COND

📂 LAB-PRAC-05_CONDLOOPS

📂 PRACTICE-07_LOOPS-ARR

📂 LAB-PRAC-06_LOOPS

📂 LAB-PRAC-07_LOOPS-ARR

📂 LABEXAM-PRAC-01_MIDSEM

📂 PRACTICE-09_PTR-MAT

📂 LAB-PRAC-08_ARR-STR

📂 PRACTICE-10_MAT-FUN

📂 LAB-PRAC-09_PTR-MAT

    ❓ Mr C writes a Story

    ❓ Matrix Arithmetic

    ❓ Spin the Matrix

    ❓ Crony Capitalization

    ❓ Matrix Mirroring

    ❓ Sodoku

    ❓ The Last Line

    ❓ Singular Value Decomposition

    ❓ Matrix Flip

    ❓ Now we are in Rome

    ❓ Search for the Submatrix

    ❓ Convoluted Convolutions

📂 LAB-PRAC-10_MAT-FUN

📂 PRACTICE-11_FUN-PTR

📂 LAB-PRAC-11_FUN-PTR

📂 LAB-PRAC-12_FUN-STRUC

📂 LABEXAM-PRAC-02_ENDSEM

📂 LAB-PRAC-13_STRUC-NUM

📂 LAB-PRAC-14_SORT-MISC

Mr C writes a Story

LAB-PRAC-09_PTR-MAT

Mr C writes a Story [10 marks]

Problem Statement

Mr C is trying to write a story. However, he is so tired from ESC101 duties that all is not going according to plan. He starts writing the story, writes a few characters, but falls asleep in the middle and after that types some garbage characters. He wakes up, all groggy, and being unable to distinguish story from garbage, starts writing the story all over again. However, he yet again falls asleep midway and this process repeats a few times.

In your input, the first line will contain a single strictly positive integer n indicating the number of attempts Mr C made at writing his story. n will be no more than 100. The next n lines will each contain a single attempt. The attempts may contain printable characters, spaces, tabs but no non-printable characters. Each attempt will be contained in a single line. Each attempt will contain no more than 499 characters. We also promise that no attempt will contain zero characters.

You have to print the longest *prefix substring* that is common to all attempts of Mr C in you output. This is arguably the longest portion of the story Mr C was ever able to complete in an attempt before falling asleep. A prefix substring is a substring that begins with the first character of the string e.g. "P", "Pr", "Pre", "Prea" are all prefix substrings of "Preamble" but the substrings "amble", "l", "eam", are not valid prefix substrings. For this question, the empty substring with zero characters is considered a valid prefix substring of any string.

If there is no prefix substring common to all attempts of Mr C (in other words if the empty substring is the only common substring) then print "EMPTY" in your output.

Caution

1. The prefix substring can contain spaces and tabs.
2. Note n is going to be provided in the first line and the strings on line 2 onward. This means there will be a new line character after n. Be careful not to read that newline character into your strings.
3. Be careful about extra/missing lines and extra/missing spaces in your output.

EXAMPLE 1:
INPUT
3
TheSongOfIce
TheSongOfFire
TheDanceOfWinds

OUTPUT:
The

EXAMPLE 2:
INPUT
3

Wake up
Fall down
Rise up

OUTPUT:
EMPTY

Grading Scheme:
Total marks: **[10 Points]**

There will be no partial grading in this question. An exact match will receive full marks whereas an incomplete match will receive 0 points. Please be careful of missing/extra spaces and missing/lines (take help of visible test cases). Each visible test case is worth 1 point and each hidden test case is worth 2 points. There are 2 visible and 4 hidden test cases.

🍴 Start Solving! (/editor/practice/6182)