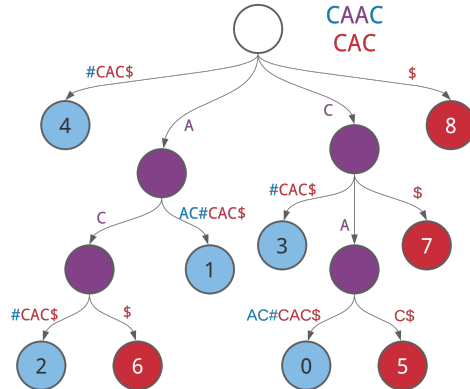## 9F Find the Shortest Non-Shared Substring of Two Strings

Shortest Non-Shared Substring Problem

Find the shortest substring of one string that does not appear in another string.

Input: Strings $Text_1$ and $Text_2$.
Output: The shortest substring of $Text_1$ that does not appear in $Text_2$.

Formatting

Input: A pair of strings $Text_1$ and $Text_2$.
Output: The shortest substring of $Text_1$ that does not appear in $Text_2$.

Constraints

- The lengths of $Text_1$ and $Text_2$ will be between 1 and 10^3.

Test Cases

Case 1

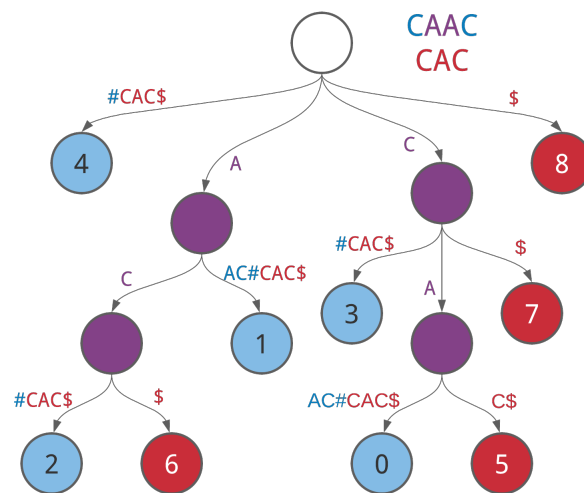Description: The sample dataset is not actually run on your code.

Input:
```
CAAC
CAC
```

Output:
```
AA
```

Figure:

Case 2

Description: *Text*$_1$ and *Text*$_2$ are identical.

Input:
GAGCAT
GAGCAT

Output:

Case 3

Description: *Text*$_1$ and *Text*$_2$ only differ by one character.

Input:
GAGT
GAGC

Output:
T

Case 4

Description: *Text*$_1$ and *Text*$_2$ are completely different (no shared characters).

Input:
GG
CT

Output:
C or G or T (*you will not be penalized for having one over the other, but make sure you only output one*).

Case 5

Description: *Text*$_1$'s prefix is the same as *Text*$_2$'s suffix, or vice versa.

Input:
CGAGCATA
ATACGAGC

Output:
AC or CA (*you will not be penalized for having one over the other, but make sure you only output one*).

Case 6

Description: A larger dataset of the same size as that provided by the randomized autograder. Check input/output folders for this dataset.