

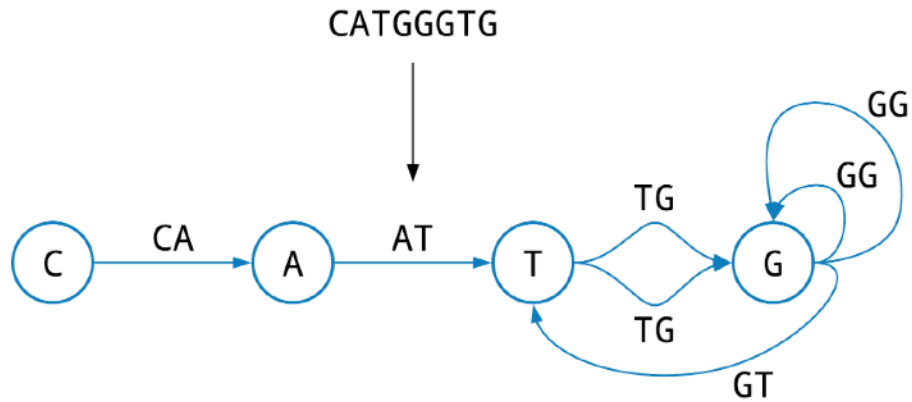
3D Construct the De Bruijn Graph of a String

De Bruijn Graph from a String Problem

Construct the de Bruijn graph of a string.

Input: An integer k and a string $Text$.

Output: The graph $DEBRUIJN_k(Text)$.



Formatting

Input: A integer k followed by a string $Text$.

Output: $DEBRUIJN_k(Text)$, in the form of an adjacency list.

Constraints

- The value of k will be between 1 and 10^2 .
- The length of $Text$ will be between 1 and 10^4 .

Test Cases

Case 1

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

Input:

3
ACGTGTATA

Output:

AC : CG
CG : GT
GT : TG TA
TG : GT
TA : AT
AT : TA

Case 2

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

Input:

4
AGCCT

Output:

AGC : GCC
GCC : CCT

Case 3

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

Input:

3
CCTCCG

Output:

CC : CT CG
CT : TC
TC : CC

Case 4

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

Input:

4
GCTTCTTC

Output:

GCT : CTT
CTT : TTC TTC
TTC : TCT
TCT : CTT

Case 5

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

Input:

5
TTTTTTTTTT

Output:

TTTT : TTTT TTTT TTTT TTTT TTTT TTTT

Case 6

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