

### 3D Construct the De Bruijn Graph of a String

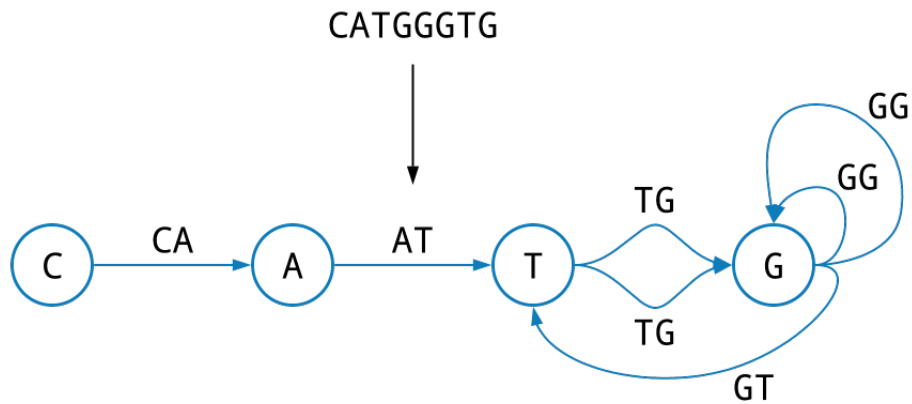
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#### De Bruijn Graph from a String Problem

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

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

**Input:**

3  
CGTGT T

**Output:**

C : CG  
CG : GT  
GT : TG T  
TG : GT  
T : T  
T : T

### Case 2

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

**Input:**

4  
GCCT

**Output:**

GC : GCC  
GCC : CCT

### Case 3

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

**Input:**

3  
CCTCCG

**Output:**

CC : CT CG  
CT : TC  
TC : CC

#### Case 4

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**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

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

**Input:**

5  
TTTTTTTTTT

**Output:**

TTTT: TTTT TTTT TTTT TTTT TTTT TTTT

#### Case 6

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