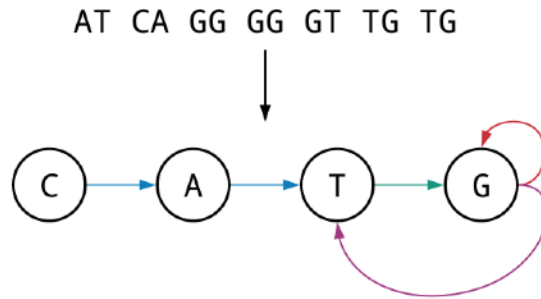## 3K   Generate Contigs from a Collection of Reads

Contig Generation Problem

Generate the contigs from a collection of reads (with imperfect coverage).

Input: A collection of *k*-mers *Patterns*.
Output: All contigs in the graph DEBRUIJN(*Patterns*).

AT CA GG GG GT TG TG

Formatting

Input: A space-separated list of *k*-mer strings *Patterns*.
Output: A space-separated list of strings representing all contigs in the graph DEBRUIJN(*Patterns*)
(you may return the strings in any order).

Constraints

- The number of strings in *Patterns* will be between 1 and 10^4.

- The length of any given string in *Patterns* will be between 1 and 10^2.

Test Cases

Case 1

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

Input:
```
ATG ATG TGT TGG CAT GGA GAT AGA
```

Output:
```
CAT GAT TGT TGGA AGA ATG ATG
```

Case 2

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

Input:
```
AG GT GC TA
```

Output:
```
GTAG GC
```

Case 3

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

Input:
```
GTT TTA TAC TTT
```

Output:
```
GTT TTAC TTT
```

Case 4

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

Input:
```
GAGA AGAG AACG ACGT ACGG
```

Output:
```
ACGT ACGG AACG GAGAG
```

Case 5

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

Input:

```
TGAG GACT CTGA ACTG CTGA
```

Output:

```
CTGA CTGA TGAG GACTG
```

Case 6

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