Problem 187: Repeated DNA Sequences

Problem Information

Difficulty: Medium
Acceptance Rate: 52.34%
Paid Only: No
Tags: Hash Table, String, Bit Manipulation, Sliding Window, Rolling Hash, Hash Function

Problem Description

The **DNA sequence** is composed of a series of nucleotides abbreviated as `'A'`, `'C'`, `'G'`, and `'T'`.

* For example, `"ACGAATTCCG"` is a **DNA sequence**.

When studying **DNA** , it is useful to identify repeated sequences within the DNA.

Given a string `s` that represents a **DNA sequence** , return all the **`10`-letter-long** sequences (substrings) that occur more than once in a DNA molecule. You may return the answer in **any order**.

Example 1:

Input: s = "AAAAACCCCCAAAAACCCCCCAAAAAGGGTTT" **Output:** ["AAAAACCCCC","CCCCCAAAAA"]

Example 2:

Input: s = "AAAAAAAAAAAAA" **Output:** ["AAAAAAAAAA"]

Constraints:

* `1 <= s.length <= 105` * `s[i]` is either `'A'`, `'C'`, `'G'`, or `'T'`.

Code Snippets

C++:

```
class Solution {
public:
vector<string> findRepeatedDnaSequences(string s) {

}
};
```

Java:

```
class Solution {
public List<String> findRepeatedDnaSequences(String s) {

}
}
```

Python3:

```
class Solution:
def findRepeatedDnaSequences(self, s: str) -> List[str]:
```