Problem 1392: Longest Happy Prefix

Problem Information

Difficulty: Hard
Acceptance Rate: 50.61%
Paid Only: No
Tags: String, Rolling Hash, String Matching, Hash Function

Problem Description

A string is called a **happy prefix** if is a **non-empty** prefix which is also a suffix (excluding itself).

Given a string `s`, return _the**longest happy prefix** of_ `s`. Return an empty string `""` if no such prefix exists.

Example 1:

Input: s = "level" **Output:** "l" **Explanation:** s contains 4 prefix excluding itself ("l", "le", "lev", "leve"), and suffix ("l", "el", "vel", "evel"). The largest prefix which is also suffix is given by "l".

Example 2:

Input: s = "ababab" **Output:** "abab" **Explanation:** "abab" is the largest prefix which is also suffix. They can overlap in the original string.

Constraints:

* `1 <= s.length <= 105` * `s` contains only lowercase English letters.

Code Snippets

C++:

```
class Solution {
public:
string longestPrefix(string s) {

}
};
```

Java:

```
class Solution {
public String longestPrefix(String s) {

}
}
```

Python3:

```
class Solution:
def longestPrefix(self, s: str) -> str:
```