

Implement strStr().

Given two strings needle and haystack, return the index of the first occurrence of needle in haystack, or -1 if needle is not part of haystack.

## Clarification:

What should we return when needle is an empty string? This is a great question to ask during an interview.

For the purpose of this problem, we will return 0 when <code>needle</code> is an empty string. This is consistent to C's strstr() and Java's indexOf().

## **Example 1:**

```
Input: haystack = "hello", needle = "ll"
Output: 2
```

## Example 2:

```
Input: haystack = "aaaaa", needle = "bba"
Output: -1
```

## **Constraints:**

- 1 <= haystack.length, needle.length <= 10<sup>4</sup>
- haystack and needle consist of only lowercase English characters.