## 28. Find the Index of the First Occurrence in a String

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.

## Example 1:

**Input:** haystack = "sadbutsad", needle = "sad"

Output: 0

**Explanation:** "sad" occurs at index 0 and 6.

The first occurrence is at index 0, so we return 0.

## Example 2:

**Input:** haystack = "leetcode", needle = "leeto"

Output: -1

**Explanation:** "leeto" did not occur in "leetcode", so we return -1.

## **Constraints:**

 $1 \le \text{haystack.length}, \text{needle.length} \le 10^{4}$ 

haystack and needle consist of only lowercase English characters.