

## 10. Regular Expression Matching

Hard  Topics  Companies

Given an input string `s` and a pattern `p`, implement regular expression matching with support for `'.'` and `'*'` where:

- `'.'` Matches any single character.
- `'*'` Matches zero or more of the preceding element.

The matching should cover the **entire** input string (not partial).

### Example 1:

**Input:** `s = "aa", p = "a"`  
**Output:** `false`  
**Explanation:** "a" does not match the entire string "aa".

### Example 2:

**Input:** `s = "aa", p = "a*"`  
**Output:** `true`  
**Explanation:** `'*'` means zero or more of the preceding element, `'a'`. Therefore, by repeating `'a'` once,

### Example 3:

**Input:** `s = "ab", p = ".*"`  
**Output:** `true`  
**Explanation:** `".*"` means "zero or more (`*`) of any character (`.`)".

### Constraints:

- `1 <= s.length <= 20`
- `1 <= p.length <= 20`
- `s` contains only lowercase English letters.
- `p` contains only lowercase English letters, `'.'`, and `'*'`.
- It is guaranteed for each appearance of the character `'*'`, there will be a previous valid character to match.

Seen this question in a real interview before? 1/4

☒ Yes ☐ No

Accepted **917.5K** Submissions **3.3M** Acceptance Rate **28.1%**

 Topics

 Companies

 Similar Questions

 Discussion (271)