

Open-Ended Lab Task 2:

Objective:

Given a *pattern* and a string *s*, find if *s* follows the same pattern.

Here **follow** means a full match, such that there is a bijection between a letter in *pattern* and a **non-empty** word in *s*. Specifically:

- Each letter in *pattern* maps to **exactly** one unique word in *s*.
 - Each unique word in *s* maps to **exactly** one letter in *pattern*.
 - No two letters map to the same word, and no two words map to the same letter.
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Submission Requirements:

- Submit the program code along with comments explaining key sections of your implementation.
 - Optional: Submit screenshots of sample outputs or visualizations if implemented.
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Examples:

Example 1:

Input: pattern = "abba", s = "dog cat cat dog"

Output: true

Explanation:

The bijection can be established as:

- 'a' maps to "dog".
- 'b' maps to "cat".

Example 2:

Input: pattern = "abba", s = "dog cat cat fish"

Output: false

Example 3:

Input: pattern = "aaaa", s = "dog cat cat dog"

Output: false