

Copilot

Sure! Here's a string manipulation exercise for you to practice in R:

Task: String Manipulation in R

Objective: Write a function in R that takes a character vector as input and performs the following operations:

1. **Convert to Lowercase:** Convert all the characters in the vector to lowercase.
2. **Remove Punctuation:** Remove any punctuation marks from the strings.
3. **Replace Spaces with Underscores:** Replace all spaces in the strings with underscores.
4. **Count Vowels:** Count the number of vowels (a, e, i, o, u) in each string and return this count as a separate vector.

Example Input:

```
c("Hello, World!", "R Programming is fun.", "Let's practice string manipulation!")
```

Expected Output:

1. `c("hello, world!", "r programming is fun.", "let's practice string manipulation!")`
2. `c("hello world", "r programming is fun", "lets practice string manipulation")`
3. `c("hello_world", "r_programming_is_fun", "lets_practice_string_manipulation")`
4. `c(3, 6, 10)`

Instructions:

- Create a function called `string_manipulation` that takes a character vector as input.
- Implement the four operations mentioned above within the function.
- Return a list containing the modified strings and the vowel counts.

Good luck with your practice! If you have any questions or need further assistance, feel free to ask. 😊