### **Copilot**

Sure, I'd be happy to help you practice string manipulations in R! Here's a task for you:

# Task: String Manipulation in R

**Objective:** Write a function in R that takes a vector of strings and performs the following operations:

- 1. Convert all strings to lowercase.
- 2. Remove any leading or trailing whitespace.
- 3. Replace all instances of the word "data" with "information".
- 4. Extract the first 5 characters of each string.
- 5. Concatenate all the modified strings into a single string, separated by a comma.

## **Example Input:**

```
c(" Data Science ", "R Programming", "Data Analysis", " Big Data ")
```

## **Expected Output:**

```
"info, r pro, info, big d"
```

### **Instructions:**

- 1. Create a function named manipulate\_strings that takes a vector of strings as input.
- 2. Implement the steps mentioned in the objective within the function.
- 3. Test your function with the example input provided.