2025SP-ITSE-2309-82700-Database Progr...

Lab 3

Instructions

Lab 3 Instructions
Create A Data Frame

1. Create a vector of pirate captain names. You can use any names you like, but make sure you have 5 or more names in your vector. The first vector value should be your first name.
2. Create a second vector of crew sizes. This vector should contain the number of crew members for each captain you named in the previous step. At least one value in the CrewSize vector should be bigger than 5.
3. Create a data frame named ships where the first column stores the captain's name, and the second column stores the crew sizes. Give the first column the name of Captain and the second column the name of CrewSize.
4. Display the data frame on the console. It should have 2 columns and 5 rows. The first row's value in the Captain column should be your name.
5. Use the single bracket selector to select the column named CrewSize, (position 2).
6. Use the $ selector to select the vector for the column named Captain.
7. Use the rbind() function to add a row for another captain and crew size, when you do use a list, not a vector to store the data for the row.

FUN WITH LOOPS

8. Code a For Loop that loops through all values in the vector for the CrewSize column. Within the loop code a statement that prints each crew size value to the console. Make sure the loop runs properly. Make sure your values only print once. In the instructor file I show you two different ways you can do this.
9. Create a vector that is called **yourlastname**, substituting your last name. The vector should have 5 text values in it. It can be anything you like: sports teams, dog breeds, types of tea, etc.
10. Print the value in the 4th position of vector, using a single bracket selector.
11. Code a For Loop with an IF statement that prints the third value, (whatever that is).
12. Copy your code from step 11 and an Else clause that prints the words "Not Third Value". Your output should look something like this.

[1] "not the third value"
[1] "not the third value"
[1] "steelers"
[1] "not the third value"
[1] "not the third value"

FUNCTIONS

13. Create a custom function that has one argument. The function should be called welcome_message. The function should take one parameter and print a message to the console that uses the parameter and includes some other text. The message can be anything you choose, but it must use the name that is passed to the welcome_message function. Use the Paste function like we did in lab1 to print your message. Here's a hint.

print(paste("some text", parameter, "some more text"))

Make sure and test the function.

14. Create a function called subract_and_multiply() that accepts two numbers as arguments. Inside the function's brackets subtract the first number from the second number and store the result in a variable. Also multiply the first number and the second number and store the result in a second variable. Finally print two lines inside the function. The first line should look something like this:
"Secondnumber subtracted from the firstnumber = firstvariable."
The second line should look something like this.
"Firstnumber and secondnumber multiplied together = secondvariable."
Substitute firstnumber and secondnumber for the values that are passed to the function and substitute firstvariable and secondvariable for the variable values.

When you are finished with your script it as an R type file and name it **lastnamelab3.**

How it will be graded

Requirement	Points
Fourteen steps completed according to instructions. @ 4 points per step.	56
File named properly and submitted for grading as an R script file.	4
Total	60

As noted in the syllabus you will have a chance to correct and resubmit your file after I grade it.

If you miss the deadline for the assignment a 5 point deduction will be assessed.

Submissions

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Comments

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Reflect in ePortfolio

Activity Details

Task: Submit to complete this assignment

Overdue - Sep 15, 2024 11:59 PM