

Worksheet 4b

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2024-10-30

1. Using the for loop, create an R script that will display a 5x5 matrix as shown in Figure 1. It must contain `vectorA = [1,2,3,4,5]` and a 5 x 5 zero matrix.
2. Print the string “*” using `for()` function. The output should be the same as shown in Figure
3. Get an input from the user to print the Fibonacci sequence starting from the 1st input up to 500. Use repeat and break statements. Write the R Scripts and its output.
4. Import the dataset as shown in Figure 1 you have created previously.
 - a. What is the R script for importing an excel or a csv file? Display the first 6 rows of the dataset? Show your codes and its result
 - b. Create a subset for gender(female and male). How many observations are there in Male? How about in Female? Write the R scripts and its output.
 - c. Create a graph for the number of males and females for Household Data. Use `plot()`, chart type = barplot. Make sure to place title, legends, and colors. Write the R scripts and its result.
5. The monthly income of Dela Cruz family was spent on the following: Food Electricity Savings Miscellaneous 60 10 5 25
 - a. Create a piechart that will include labels in percentage. Add some colors and title of the chart. Write the R scripts and show its output.
6. Use the iris dataset. `data(iris)`
 - a. Check for the structure of the dataset using the `str()` function. Describe what you have seen in the output.
 - b. Create an R object that will contain the mean of the `sepal.length`, `sepal.width`, `petal.length`, and `petal.width`. What is the R script and its result?
 - c. Create a pie chart for the Species distribution. Add title, legends, and colors. Write the R script and its result.
 - d. Subset the species into `setosa`, `versicolor`, and `virginica`. Write the R scripts and show the last six (6) rows of each species.
 - e. Create a scatterplot of the `sepal.length` and `sepal.width` using the different species(`setosa`, `versicolor`, `virginica`). Add a title = “Iris Dataset”, subtitle = “Sepal width and length, labels for the x and y axis, the pch symbol and colors should be based on the species.