

Documentation

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GitHub Url

https://github.com/ShellyParraZ/Weekly_Spendings_Tracker.git

Project Summary

My project creates an analysis on a student's weekly spendings. The purpose of the analysis is to provide students with an opportunity to reflect and enhance their upcoming financial spendings.

Run the Program

The program will commence with this prompt:

Hello! This is the Weekly Spendings Tracker.

In order to provide a significant analysis, please provide your yearly income, tuition, rent, and utilities.

These values should be a positive float. Otherwise, input 0.0.

Input your yearly income:

As instructed, the user should input a positive float. If the user does not want their income, tuition, rent, and utilities to apply to their analysis, then they should input 0.0 as their response to their intended prompt. The value should represent the users yearly income, not monthly or weekly. If the user inputs a negative float, then the program will provide further instructions:

Negative value. Please enter a positive float.

If the user inputs a value that is not a float, then the program will provide further instructions:

Incorrect value. Please enter a float.

If the user inputs a positive float, then the program will proceed to the next prompt:

Input your yearly tuition:

Again, a positive float should be input, otherwise the program will repeat the previous instructions.

Input your yearly rent:

Again, a positive float should be input, otherwise the program will repeat the previous instructions.

Input your yearly utilities:

Again, a positive float should be input, otherwise the program will repeat the previous instructions.

After this prompt receives an input value, then the program will print the previous responses and give the user an opportunity to change their previous responses.

These are your current responses:

Yearly Income: 31200.0

Tuition: 0.0

Rent: 20400.0

Utilities: 64.53

Would you like to change a response? (enter "no" to continue)

If the user inputs "no", then the program will continue. Otherwise, the program will repeat the previous prompts until the user inputs "no" to this prompt.

As the program continues, it will state:

Your information was successfully saved.

Provide the name of your weekly spendings folder:

The value for this prompt is a string. The user should respond by typing the name of their weekly spendings folder. This is the folder that contains all the csv files, otherwise known as the worksheets that represent each day of the week.

(If you currently do not have a folder, then you can use the example folder provided in the github: "testingJournal1". If you would like to generate your own folder, then use the draft folder provided in the github: "weeklySpendingsJournalDraft". The draft is empty, so fill it out to your desire.)

After an input is provided for this prompt, then the analysis should be provided. If the analysis does not output, then there could be an issue with the folder. The folder should be located in the same directory as the program. If there is an empty file located in the folder, then there will be an additional output that states: "Empty File Located."

The analysis looks like this:

Weekly Summary

Starting Amount: \$

Remaining Balance: \$

Overdraft: \$

Windfall: \$

Weekly Tuition Percentage: %

Weekly Rent Percentage: %

Weekly Utilities Percentage: %

Total Spendings: \$

Spending Wants:

Total: \$

Spending Percentage: %

Spending Needs:

Total: \$
Spending Percentage: %

Thorough Category Analysis

Dining Out Food: %
Groceries: %
Personal Care: %
Gardening Supplies: %
Clothing: %
Household Items: %
Technology: %
Entertainment: %
Health & Fitness: %
Gifts: %
School Resources: %
Work Resources: %
Pet Care: %
Other: %

Thorough Name Analysis

(This output is particular to the information provided in the files. It is similar to the Thorough Category Analysis format: "name: %")

How to Interpret the Output

An example folder provided in the github will be utilized in this explanation: "testingJournal1".

These will be the values utilized:

Yearly_Salary	Yearly_Tuition	Yearly_Rent	Yearly_Uilities
31200.0	0.0	20400.0	64.53

The output based on the inputs provided:

Weekly Summary

Starting Amount: \$223.66
Remaining Balance: \$0.0
Overdraft: \$41.51
Windfall: \$50.0
Weekly Tuition Percentage: 0.0%
Weekly Rent Percentage: 65.38%

Weekly Utilities Percentage: 0.21%
Total Spendings: \$315.17

Spending Wants:
Total: \$169.57
Spending Percentage: 53.8%

Spending Needs:
Total: \$145.6
Spending Percentage: 46.2%

Thorough Category Analysis
Dining Out Food: 16.28%
Groceries: 21.58%
Personal Care: 0.0%
Gardening Supplies: 0.0%
Clothing: 24.16%
Household Items: 0.0%
Technology: 0.0%
Entertainment: 5.44%
Health & Fitness: 0.0%
Gifts: 0.0%
School Resources: 18.28%
Work Resources: 0.0%
Pet Care: 6.34%
Other: 7.93%

Thorough Name Analysis
Clothes: 24.16%
Movie Tickets: 5.44%
Coffee: 13.33%
Lunch: 6.79%
Inst327 Textbook: 18.28%
Groceries: 21.58%
Dog Food: 6.34%
Squishmallow: 7.93%

I am going to provide a detailed description of every aspect of the analysis, then I am going to provide a few examples on ways a student could use the analysis to enhance their future spendings.

To start with the detailed description. The "Weekly Summary" portion represents the title. The starting amount is the amount of money the user has left after removing the costs of their tuition, rent, and utilities. The starting amount is a significant piece of information because it

prevents users from avoiding responsibility when making future purchases. The remaining balance is the amount of money the user has left after deducting their weekly spendings from their starting amount. If the user owes money, then this amount will be zero, but it will not be a negative number. Having said that, the overdraft is the amount of money the user owes. After deducting the users weekly spendings from the starting amount, if the user spent more money than their starting amount, then that amount will be shown in the overdraft. The windfall is the amount of money the user inherited during the week. The windfall is an opportunity for the user to record any unexpected profit that they received that is unrelated to their salary. If the user chooses to record this information, then the windfall will be used to avoid an overdraft balance. The weekly tuition, rent, and utilities percentages represent the amount of money spent on those expenses before considering the weekly spendings. The total spendings is the total amount of money the user spent that week. More specifically, this amount is determined from the weekly spendings folder. The tuition, rent, and utilities are not considered in the total spendings. The separation between the weekly spendings and the tuition, rent, and utilities is significant in allowing the user to better understand every expense's impact on their financial situation. The spending wants section of the analysis is a form of categorization that may expand the reflecting process of the user. If the user categorizes an item as a want, then that item was an avoidable expense. In other words, the user chose to buy that item, but they could have avoided it. Thus, providing the total and percentage of items categorized as wants will provide the user an opportunity to recognize the amount of money they could have avoided spending. Similarly, the spending needs section of the analysis could expand the users' reflecting process. If the user categorizes an item as a need, then they believe that item is unavoidable. Thus, the total and percentage could either remove stress from the user because then they'll recognize that some of their financial spendings were on items that they truly needed, or it will encourage the user to prioritize their spendings differently, or both. The thorough category analysis provides a percentage of every category expense. Similarly, the thorough name analysis provides a percentage of every name expense. The category analysis was created to allow users to recognize similarities in their spendings through categorization. The name analysis provides a more precise analysis which could allow users to recognize other types of spending similarities through the name.

Based on the example shown above, I am going to provide a few ways a student could interpret the weekly summary to their benefit. To start, there is an overdraft of forty-one dollars and fifty-one cents. Thus, a student should utilize the overdraft as a warning that they need to change their spending habits or else they will continue spending money they do not have. To continue, the thorough category analysis and thorough name analysis both hold a similarity. That being, the expense with the highest percentage is related to clothes. Thus, a student would be able to recognize that a majority of their spendings is influenced by clothing. As a result, if the student decided to cut back on spendings, then they would have an easier time in deciding which categories they should avoid. Lastly, similar to the previous example, the spending wants section of the weekly summary is higher in amount compared to the spending needs section. Thus, if a student wanted to cut back on spendings, then the student would be able to recognize that they could cut back on expenses that were categorized as wants since those are avoidable spendings.

Annotated Bibliography

GeeksforGeeks. (2024, December 11). Check If a Text File Empty in Python.
<https://www.geeksforgeeks.org/check-if-a-text-file-empty-in-python/>

This source provides a detailed explanation on how to determine whether a file is empty. I took inspiration from this source and applied it to the main function in order to prevent the program from receiving errors when an empty file was traversed.

GeeksforGeeks. (2021, July 26). Check if Table Exists in SQLite using Python.
<https://www.geeksforgeeks.org/check-if-table-exists-in-sqlite-using-python/>

This source provides a detailed explanation on how to check if a table exists using SQLite. I took inspiration from this source and attempted to apply it to my test_spending_tracker file.