Project Documentation

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CIS-30A

Project Information and Details

What problems are you solving in this project?

Keeping track of your finances is a troubling task, especially when you only try to rely on your memory to understand where your money is going. This code allows users to outline their budget based off of their base salary, expenses, and the saving goals they wish to achieve.

What solutions are you implementing in the project?

This program will allow users to:

- Input basic sources of income

- Input and track monthly expenses

- Allow users to modify any data to accurately adjust their goals

- A summary to neatly provide the information users need to see to understand their financial situation

Provide an explanation of algorithm implementation

- The program will start by prompting the user to enter sources of income, expenses, and savings.

- The data will be stored into dictionaries for sorting and retrieval

- The user will be prompted with menus within a loop until the user chooses to exit

- Menu will consist of options like modifying data, printing financial information, and saving information to a database

- Conditional statements that help determine if expenses exceed budget

- Exception handling to ensure programs do not stop when user inputs are not invalid.

What are the program objectives?

- Provide a user friendly interface that make the program easy to understand

- Allow users to input and modify their data without restarting program

- Provide a financial summary that is easy to read and understand

Explain how your program is interacting with the user and its purpose

- The program will initialize with explaining the purpose of the program, as a mission statement of some sort, then will prompt the user to input basic information about their finances. The program will review the data they inputted back to the user and have them confirm if it is correct, allowing the user to re-enter information if they wish.

- This program prompts the user to input certain information according to income, expenses, and savings, and it is the user's job to accurately provide that information to the best of their ability.

- The program will use this data and help display the information in a way the user can understand their financial environment, providing a detailed list of expenses compared to their income.

What are the limitations of the program

- This program is only ran through the terminal so there is no GUI. This interface makes it very boring to look at and provides only text-based solutions.

- This program primarily revolves around user based input, there is no integration with financial institutions and no reading of external documents.

- There is no trend based analysis, making personal financial literacy more difficult for the user. Only making basic calculations of their base income and expenses.

Provide recommendations on improving the program

- This program could use extensive implementations of Tkinter to make the user interface more enjoyable and user friendly.

- This program could utilize external access to financial institutions to make inputting financial data easier for the user.

- This program could also improve by utilizing graphs to visually show the user their financial trends.