Overview:
Client: Sunny
Programmer: Sean Jin
Advisor: Jason
Purpose/Objective: Finance tracker/calculator

1. Background Info & Scenario

My client Sunny, has felt that google sheets are inconvenient and clumsy to utilize, it is not user-friendly and easily accessible. She requested for a program that would allow her to easily perform calculations with the simple click of a button. She also wanted a database that separated and sorted information accurately and easier for the user to look at.

I have conducted two interviews with my client Sunny, and she requested for the revenue, spendings, and the comparison between the two to be easily seen, based on the linear continuation of data over the years. She has also requested the ability to add new data and view old data easily. Editing and deleting data must also be a feature of the program, as changes and mistakes can frequently occur between co-workers in her business.

Sunny, my client, has provided me with previous data from google sheets, which I will convert to CSV files and add it to my program.

A senior from my high school, Jason, who has further extensive knowledge and experience with programming and this field of study, has agreed to be my advisor in helping me with the technicalities of programming.

2. Rationale for proposed solution

The purpose and objective of this program is to separate, distribute, and calculate financial information given by the manager/administrator/head of the business. My objective is to make a program that can execute all these tasks efficiently, and provides the client with a user-friendly experience.

Error-checking will be precise and intuitive, which will allow the user to utilize the program without any obstacles and will allow for an efficient experience.

I will be coding the python, and some of the external libraries I will be utilizing is:

- Sqlite3, located in the python standard library
- Matplotlib (3rd party library)
- Tabulet (3rd party library)

Python will be utilized as it is a straightforward language. I have extensive background experience with the python language, and I am learning python very in depth at school.

Sqlite3 will be used as it will help me structure my program into a relational database, as sqlite3 is a database which will help me organize given data and future data in the program

Matplotlib/Tabulet will be used for user-friendly access and experience for my client and her co-workers. Matplotlib provides a clearly graphical interface fo the trends in spendings and revenue, and tabulet allows data to be displayed clearly in tabular form.

3. Success Criterias

Program will display a working login screen
Program will be able to update a new password
Program will display a menu for the choice of revenue, spendings, and revenue vs spendings
Program is able to create a submenu after selecting one the choices from the main menu
Program is able to add new data to each respective table
Program is able to delete data to each respective table
Program is able to edit/update data to each respective table
Program is able to query & search for existing data
Program is able to state "Data is non-existent" if inputted data is not available or does not exist within the relational database
Program is able to error check non-applicable inputs, and redirect the user back to the interface
Program is able restart automatically and loop continuously without the user having the run the program multiple times
Program is able to backtrack from the submenu to the main menu
Program is able to exit

Word Count: 426