Criterion A: Planning

Investigating the problem:

When it comes to managing household expenditures and income, some families struggle to balance their budget in the short and long term. Certain families use a paper-based system to keep track of their income and outcome to better understand where the money is being spent, my family included. However, this results in large binders storing personal financial information and may not be needed in the future. In addition, when the senders/receivers of money are regular clients, precious time is wasted transferring the same information over and over again.

As humans shift towards a digital and technological era, financial businesses make use of data management and efficient computing systems to better suit their clients. Families tend to view managing the bills as a daunting task due to the laborious amount of work they do, shuffling through receipts and reminding themselves to pay off outstanding bills. Therefore, it is crucial to optimize this process so families can spend their time doing the things they love instead of coping with their financial problems.

I interviewed my dad, who manages the bills in our house, about the features he wanted in this program, found in Appendix D. An important feature he wanted was to save the spreadsheet after he finished editing it. Thus, this became one of the points in my success criteria and my dad was the client of the project.

Proposed Solution:

I decided to program my application in Java because of its easy GUI interface and runtime check for error-free programming.

The program aims to solve the everlasting burden of managing personal and family expenses. The project should provide an organized list of an expense in a spreadsheet format, providing an estimate of how much money is spent on an item per month and year. The solution eliminates the use of paper-based records and references for clients as they are stored in the program. Overall, it provides all monetary information in one easy-to-access spreadsheet where users can modify and change any errors in spending. Although keeping a paper copy like receipts are important for references, a digital database can use that information to provide a complete picture of the family's average spending on one screen instead of multiple stacks of binders. Thus, the solution makes it easier for families and individuals to balance their funds, thereby promoting wiser decisions based on their current financial situation.

Success Criteria:

- The client can add an expense, specifying the name and how much money is spent per month on that expense

- The client can easily edit the expense to update any errors or changes

- The client can easily delete an expense

- The program can calculate the monthly total of all expenses entered into the spreadsheet

- The program can calculate the yearly total of each expense and all expenses added together

- The spreadsheets can be saved as a text file and an Excel file for printing purposes

- The user can access previously stored spreadsheets on the program

- If the user names a spreadsheet that already exists, an error message will be displayed indicating that a spreadsheet with the same name was already created, preventing any errors in loading/saving the spreadsheet

Word Count: 397 words