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Pocket Sense: A Budget Tracker App



Computer Science 2 Project Proposal



Fun Facts

- The gender gap is still real in financial literacy according to many studies
- The highest bill denomination ever issued was a 100 quintillion banknote from Hungary, which was printed on June 3 1946.
- The U.S Secret Service's original job was to fight rampant counterfeiting of the U.S Dollar.
- Estimates show that only 8% of the world's currency is physical cash.
- "Compound interest is the eighth wonder of the world" - Albert Einstein
- Before 1971, every US Dollar printed was theoretically backed by a specific amount of gold.
- Your mind relies too heavily on the first piece of information it receives when making subsequent decisions.
- There is a natural tendency to highly value immediate rewards over delayed rewards, making it hard to save.
- A research on farmers showed that their cognitive performance was better after a harvest than before it. It indicated that there is more cognitive stress when there is scarcity or poverty.
- A US penny actually costs more to manufacture than its actual value.

Problem Statement

According to a study by Standard & Poor's (S&P Global Ratings), only about a quarter of Filipino adults are considered financially literate. This means that many people even in the Philippines alone are prone to financial problems due to bad spending and budgeting habits, making unintelligent financial decisions such as incurring too much debt, and in some instances, being financially illiterate or the lack of knowledge in basic personal finance. Therefore, a solution is needed to provide people with a system that can help and assist people in performing proper budgeting and tracking their cash flow while also gaining some basic knowledge in personal finance.





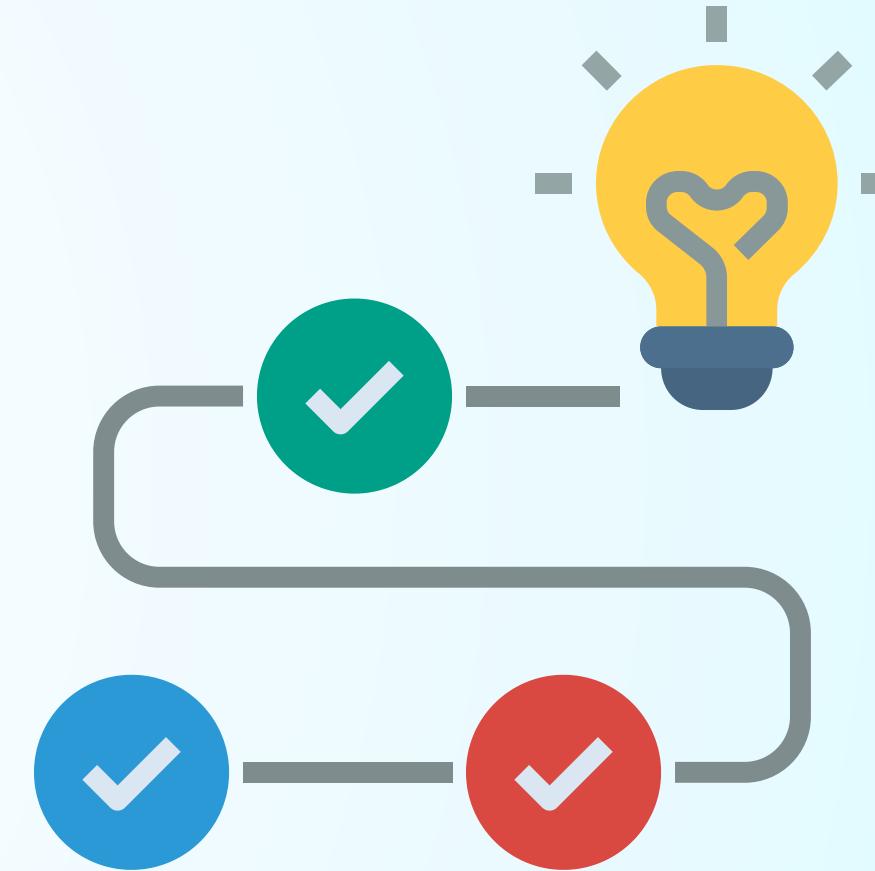
Project Objectives

- Design and develop



Planned Features

- **Debt Tracker**
- Tracks how much people owe to you and how much you owe to people.
- Takes into account the conditions and key details of the debt which is to be inputted by the user
- **Budgeting and Spending Tracker**
- Allows for the creation of a general budget and the categorization and allocation of different expenses.
- Has a section where the user can input their expenses on different aspects of their budget.
- Tracks and determines whether or not the total spending has exceeded the allocated budget for the expense.



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Logic Plan

START

DISPLAY "MAIN MENU"

DISPLAY "A. Debt Tracker"

DISPLAY "B. Spending Tracker"

INPUT choice_main

IF choice_main == 'A' THEN

// Debt Tracker Menu

DISPLAY "DEBT TRACKER MENU"

DISPLAY "A. Track your debt"

DISPLAY "B. Track other people's debt"

INPUT choice_debt

IF choice_debt == 'A' THEN

// Track your debt

LOOP

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1 x Milk
1 x Bread
2 x Apples
1 x Eggs
1 x Cheese
1 x Chicken
1 x Rice

INPUT choice_debt

IF choice_debt == 'A' THEN

// Track your debt

LOOP

DISPLAY "Enter the name of the person you owe:"

INPUT debtor_name

DISPLAY "Enter the amount you owe:"

INPUT amount_owed

DISPLAY "Select time interval for interest:"

DISPLAY "A. Daily"

DISPLAY "B. Weekly"

DISPLAY "C. Monthly"

DISPLAY "D. Quarterly"

DISPLAY "E. Semi-Annually"

DISPLAY "F. Annually"

INPUT interval_choice

SWITCH interval_choice:

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1 × Rice (2)
1 × Orange
Subtotal:
Tax (5%:
Total: ...

Thank



SWITCH interval_choice:

CASE 'A': time_interval = "Daily"
CASE 'B': time_interval = "Weekly"
CASE 'C': time_interval = "Monthly"
CASE 'D': time_interval = "Quarterly"
CASE 'E': time_interval = "Semi-Annually"
CASE 'F': time_interval = "Annually"

DISPLAY "Select interest type:"

DISPLAY "A. Percent"

DISPLAY "B. Fixed per interval"

DISPLAY "C. N/A"

INPUT interest_type

IF interest_type == 'A' THEN

DISPLAY "Enter interest percent:"

INPUT interest_percent

interest_amount = amount_owed * (interest_percent

/ 100)

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flowchart-



ELSE IF interest_type == 'B' THEN

```
interest_amount = amount_owed * (interest_percent  
/ 100)
```

```
ELSE IF interest_type == 'B' THEN
```

```
    DISPLAY "Enter additional amount per",  
time_interval, ":"
```

```
    INPUT fixed_interest
```

```
    interest_amount = fixed_interest
```

```
ELSE IF interest_type == 'C' THEN
```

```
    interest_amount = 0
```

```
END IF
```

```
DISPLAY debtor_name, ": ₦", amount_owed, ", Interest:  
₦", interest_amount, " per ", time_interval
```

```
DISPLAY "Would you like to continue? [Y/N]"
```

```
INPUT continuing_choice
```

```
IF continuing_choice == 'N' THEN
```

```
    BREAK LOOP
```

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```
ELSE IF choice_debt == 'B' THEN
    // Track others' debt to you
    DISPLAY "Enter the name of the person who owes
you:"
    INPUT creditor_name

    DISPLAY "Enter the amount they owe you:"
    INPUT amount_owed_to_you

    // Optional: could reuse similar interest structure here

    DISPLAY creditor_name, " owes you ₦",
amount_owed_to_you

END IF
```

```
ELSE IF choice_main == 'B' THEN
    // Spending Tracker
    DISPLAY "Enter how much money you currently have:"
```

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flowchart-



```
ELSE IF choice_main == 'B' THEN
    // Spending Tracker
    DISPLAY "Enter how much money you currently have:"
    INPUT current_money
```

```
DISPLAY "Enter your general budget:"
INPUT general_budget
```

```
total_spent = 0
budget_items = EMPTY_LIST
```

```
LOOP
    DISPLAY "Input budget item name (or type '=' to finish):"
    INPUT item_name
```

```
IF item_name == '=' THEN
    BREAK LOOP
```

```
DISPLAY "Input budget amount for ", item_name, ":"
```

```
INPUT item_amount
```

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flowchart-



```
ADD (item_name, item_amount) TO budget_items  
total_spent = total_spent + item_amount
```

END LOOP

```
IF total_spent > general_budget THEN  
    overspent_amount = total_spent - general_budget  
    DISPLAY "You have overspent your budget by ₦",  
overspent_amount
```

ELSE

```
    remaining_budget = general_budget - total_spent  
    DISPLAY "You have ₦", remaining_budget, " remaining  
in your budget."
```

END IF

```
DISPLAY "Total spent: ₦", total_spent
```

END IF

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flowchart-



ELSE

 remaining_budget = general_budget - total_spent

 DISPLAY "You have ₦", remaining_budget, " remaining
 in your budget."

END IF

DISPLAY "Total spent: ₦", total_spent

END IF

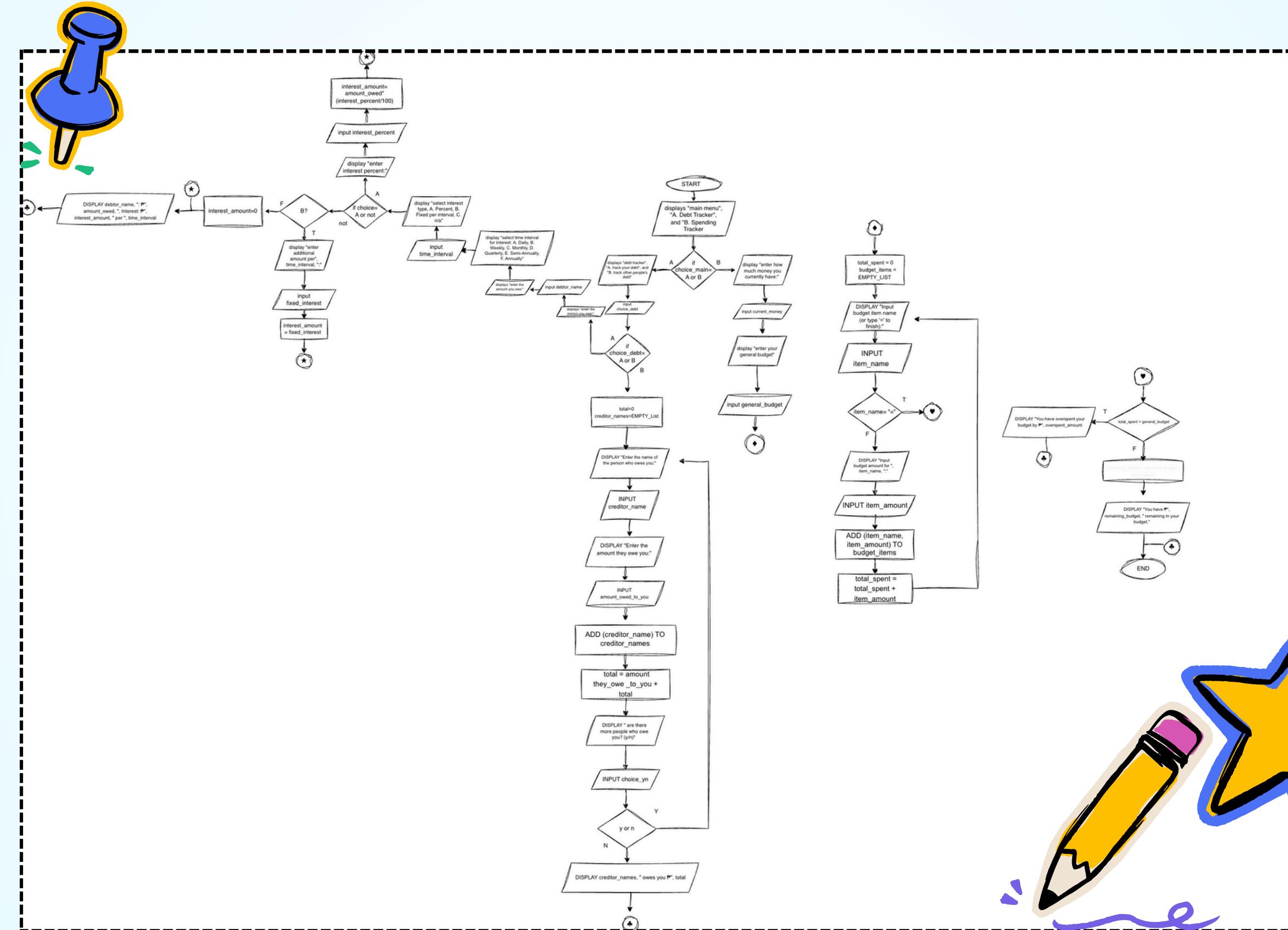
END

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flowchart-



FLOW PROCESS DIAGRAM

planned
ins and
outs
(on a full
scale,,)



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logic plan

References

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Thank you

