ASSET MANAGEMENT SYSTEM

CPE11S1 PRESENTATION

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INTRODUCTION

The main focus point is to develop an assets management system that allows customers to securely manage their financial assets. Poor money management skills are a strong negative predictor of the tendency to overspend, worry about financial affairs and increase financial stress (Garðarsdottir & Dittmar, 2012).

The application will enable users to create and access digital financial assets for managing savings, budgets, and future expenses. It aims to provide a secure and reliable asset management system designed to empower both individuals and small businesses in managing their finances effectively. The platform will serve as a centralized space where users can create access and monitor their financial assets. By offering tools for saving budgeting, and tracking future expenses the system aims to help users gain control over their money and make smarter financial decisions.

THE USER

The user interacts with the Financial Management System. The application is entirely menu-driven and interacts with the user via the command line. The user directs the flow of the program by entering numerical choices corresponding to menu options.

- Registration or Login
- The Dashboard Menu

OBJECTIVES

The objective of the project is to develop an asset management system for individuals, businesses and financial advisors to track their financial growth efficiently. Specifically the project aims to:

1. **Develop a system that:**
   a. Allows users to manage both cash and digital funds in one interface.
   b. Provide users with functionalities for budget planning, savings tracking, and expense categorization.
   c. Integrate multi-factor authentication (MFA) and end-to-end encryption to safeguard user accounts and transactions.
   d. Help users understand spending habits to improve financial discipline.
2. **Test and evaluate the system's functionality.**

FLOWCHART
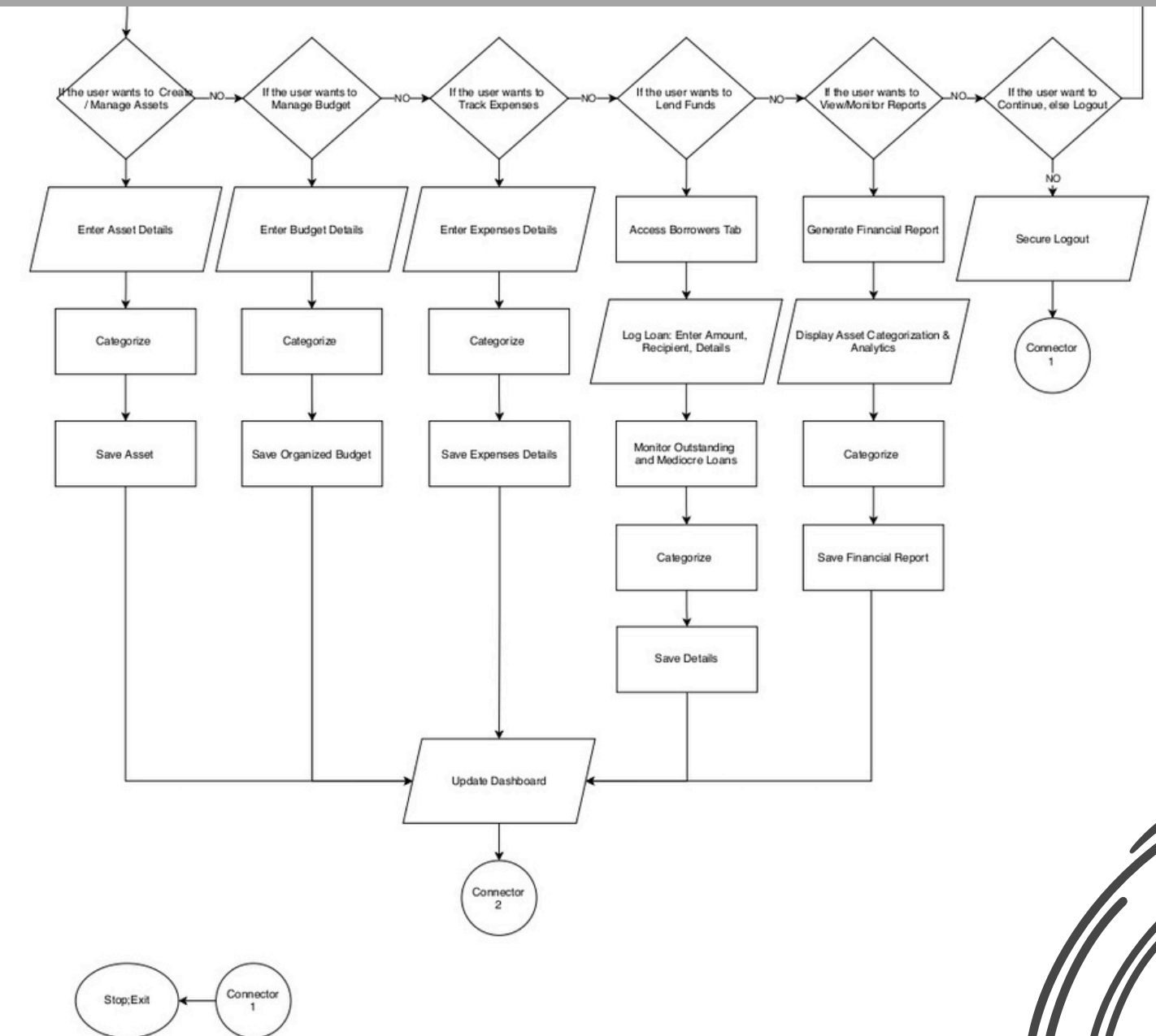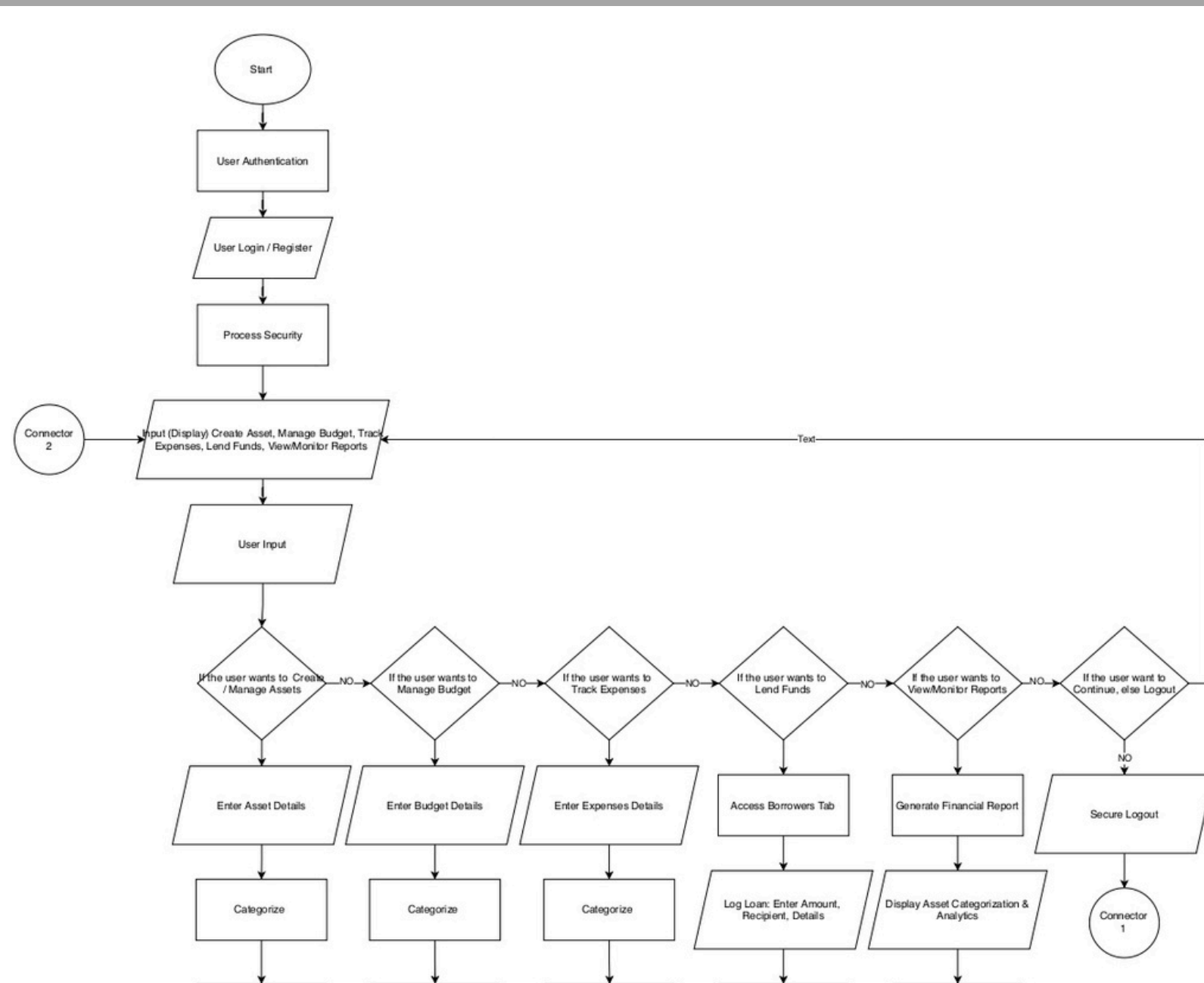
```
FUNCTION Authentication_System() // Steps: Create Account, Login, Verify Credentials User Choice = GET_INPUT("Enter '1' to Register or "2" to Login")

FUNCTION DISPLAY_MAIN_MENU() DISPLAY "Options: Create/Manage Assets | Manage | Budget| Track Expense | Lend Funds | View / Monitor Reports | View Analytics Summary Logout" END FUNCTION

FUNCTION Manage Assets() // Steps: Enter Asset Details, Categorize, Save Asset Asset_Data = GET_INPUT("Asset details") CALL PROCESS_AND_SAVE(Asset_Data, "Asset") END FUNCTION

FUNCTION Manage Budget() // Steps: Enter Budget Detalls, Categorize, Save Organized Budget Budget_Data = GET_INPUT("Budget details") CALL PROCESS_AND_SAVE(Budget_Data, "Budget") END FUNCTION

FUNCTION Track Expenses() // Steps: Enter Expense Details, Categorize, Save Expenses Expense_Data = GET_INPUT("Expense details") CALL PROCESS_AND_SAVE(Expense_Data, "Expense") END FUNCTION

FUNCTION Lend_Funds() // Steps: Enter Borrower Name, Enter Loan Amount. Enter Loan Tag =GET_INPUT("Loan Details") CALL_PROCESS_AND_SAVE END FUNCTION

FUNCTION View Report() // Steps: Retrieve Financial Data, Display Report Report_Data = CALL GET FINANCIAL_DATA()

FUNCTION View_Analytics_Summary() // Steps: Retrieve Data Totals, Display Analytics Summary Analytics_Data = CALL GET_ANALYTICS_DATA()

FUNCTION Logout() // Steps: End Session, Return to Main Menu CALL END_USER_SESSION() DISPLAY("Secure logout complete. Returning to main menu...") CALL MAIN MENU()

END FUNCTION
```

PSEUDO CODE

REFERENCES

- Array declaration - cppreference.com. (n.d.-b). https://en.cppreference.com/w/cpp/language/array.html
- Adrian, T., & Mancini-Griffoli, T. (2021). A new era of digital money. IMF F&D. https://www.imf.org/external/pubs/ft/fandd/2021/06/online/digital-money-new-era-adrian-mancini-griffoli.htm
- Bank of Canada. (2020). Security and convenience of a central bank digital currency (SAN 2020-21). https://www.bankofcanada.ca/wp-content/uploads/2020/10/san2020-21.pdf
- Clearly Payments. (2024, March 18). Statistics for cash and credit card use for payments in 2024. https://www.clearlypayments.com/blog/statistics-for-cash-and-credit-card-use-for-payments-in-2024/
- Garðarsdottir & Dittmar, (2012). Personal finance apps and low-income households https://www.researchgate.net/publication/353109750_Personal_finance_apps_and_low-income_households
- French et al. (2020). Personal finance apps and low-income households https://www.researchgate.net/publication/353109750_Personal_finance_apps_and_low-income_households
- Fernandes, Lynch, & Netemeyer, (2014); Letkiewicz, Robin-son, & Domian, (2016). Personal finance apps and low-income households https://www.researchgate.net/publication/353109750_Personal_finance_apps_and_low-income_households
- Investopedia. (2024). Types and characteristics of digital currencies: Pros, cons. https://www.investopedia.com/terms/d/digital-currency.asp
- Li, B. (2024). Research on digital currency and financial technology: Central bank digital currency (CBDC) and its role. https://www.shs-conferences.org/articles/shsconf/pdf/2024/20/shsconf_sess2024_01009.pdf
- O. I. Larina, O. M. Akimov (2020). Digital Money at the Present Stage: Key Risks and Development Direction https://www.researchgate.net/publication/343731025_Digital_Money_at_the_Present_Stage_Key_Risks_and_Development_Direction
- PayComplete. (2023). The advantages and disadvantages of cash payment. https://paycomplete.com/advantages-and-disadvantages-of-cash/
- Standard library header - cppreference.com. (n.d.). https://en.cppreference.com/w/cpp/header/string.html

THANK YOU!