

Wallet Developer Documentation Requirements to build and correctly run the program: -

- It should be Mac's operating system. If not then, Modify system_clear function().

```
void clear_screen() {
```

```
system("cls"); }
```

- Along with the main file, “password.txt”, “1_PW.txt”, “2_PW.txt”, “3_PW.txt”, “1_SW.txt”, “2_SW.txt”, “3_SW.txt”, “1_TW.txt”, “2_TW.txt”, “3_TW.txt” should be opened.

Data structures used in the code: -

- The program has extensive uses of File Handling, Linked List and Dynamic Memory Allocation.
- Program also includes the concepts of arrays, pointers and functions.

There are 2 structures listed in the code:-

1) Struct date: To print and to take input from the user in the standard (D/M/YYYY) date format.

2) Struct node: (Link list concept) This will print the desired data stored in the file (Type, Category, Date, Amount).

Header Files:-

- 1) `#include<stdio.h>`
- 2) `#include<stdbool.h>`
- 3) `#include<math.h>`
- 4) `#include<string.h>`
- 5) `#include<conio.h>`

Major functions used and their description: -

Password() function: This function is of bool type and to use the bool function in C we use `#include<stdbool.h>`. It returns true, if the user enters the correct password and returns false to the caller if the password is Incorrect. Each user has its own unique password and he/she is eligible to change the password. Even for changing the password he/she needs the "current" password.

Firstscreen() function: This prints the first screen of the program. Initially, the user will be able to see the list of users, change password, and the last one to terminate the program.

Clear screen function: This function clears the screen after every choice or before entering the password.

Change password function: This function is used to change the existing password of any user. It takes the choice from the user (for which user he/she wants to change the password). If the user enters the wrong password then it does not change the password and prints "wrong password". Then it opens the password.txt file in write mode and changes the line in the file.

Second screen function: After the correct password, the user will now be able to see the Pick a wallet list with which he/she can enter his/her choice. Go back to the main screen option is also there in this function.

Seconscreenhandler function: This function handles the whole algorithm of the second screen. It first clears the whole screen and then prints the second screen. It takes user_choice (from the second screen function) as the input. It performs according to the user's choice as cases mentioned in the code.

7) Third screen function: This function further enables the user to select any one of the following-:

- > Display Details
- > Add an entry
- > Delete an entry
- > Go back to the main screen.

8) Thirdscreenhandler function: This function handles the whole algorithm for the third screen function. This function will take user choice and wallet choice as an input. It then calls thirdscreen() and loader function.

9) Loader function: This function loads the data from the file so as to make the link list.

10) Displaydetails function: This function displays the income and expenses of that specific user. It also showcases net expenses, net balance, net income, and the GOAL here.

11) Delete entry function: This function deletes an entry from the user's data using link list.

12) Add entry function: This function adds an entry to the user's data.

13) Reset list: This function deletes the linked list. A significant step in the program.

14) Names function: This function takes user choice (user1/user2/user3), which wallet and an array.

15) Delete from file function: This function deletes the data from the actual file.

- 16) Delete_user_screen_handler() function:
- 17) Delete_data_wallet_handler(int choice)
- 18) Delete_user_screen()
- 19) Delete_data(int user_choice, int wallet_choice)

A glimpse of the program:-

First screen:

- 1) User1
- 2) User2
- 3) User3
- 4) Change Password
- 5) Delete the data
- 6) Terminate

Here the user selects its preference and then the second screen gets printed after the user inputs the correct password.

Second Screen

- 1) Each user has 3 wallets:-
 - > Personal wallet (PW wallet) -> Savings Wallet (SW wallet) -> Trip wallet (TW wallet) ->Go back to the main screen

Now the user selects which wallet he/she wants to open and then the third screen gets printed after clearing the screen.

Third screen

Now the user can choose options based on his/her preference whether he/she wants to see the monetary details or wishes to add or delete some entries from the data.

Features such as password (Lock Mechanism), change password, GOAL system, net balance, net expenses, net income are also there, add entries, delete entries etc are also there in the program.

Switch cases also have a major step in the program.

There should be some data before the execution of the program in the files.

Comments are also included almost at each step.

The program has only 1 fflush function which is included in `#include<stdin>`.

THANK YOU