Programming Project / C++ – Electronic Wallet Management & Interaction System –

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I. Task Description

Student 1 is responsible for managing the electronic wallet:
- Adding and deleting cards
- Viewing cards
- Adding balance to cards

Student 2 is responsible for the interactions between cards and the logging:
- Spendings and transfers between cards
- Creating a logging system and the actual logs for all actions

II. Data Structures Used by the Team

The following classes will be used:

- Card: string cardName, string cardNumber, string name, string expirationDate, double moneyAmount, int viewCount
- Wallet: vector<Card> cards

III. File Structure

The following files will be used:

cards.csv
A file where details about the cards will be stored in the form:
cardName,cardNumber,name,expirationDate,moneyAmount,viewCount
…

transactions.txt
A file where details about placed orders will be stored:
<dayOfTheWeek month day hour/minute/second year>

<CardNumber>, <typeOfTransaction>, <amount>

…

IV. Interacting with Executables

wallet_manager will offer the following options:

./wallet_manager.exe add_card <card_name> <number> <owner_name> <exp_date>

To add a new card

./wallet_manager.exe view_card <number>

To view details on a specific card

./wallet_manager.exe list_cards

To list all cards in order

./wallet_manager.exe load_money <number> <amount>

To modify the balance of a specific card

./wallet_manager.exe save

To manually save the wallet

remote_wallet will offer the following options:

./remote_wallet.exe spend <number> <amount>

Spend money from a specific card

./remote_wallet.exe transfer <from_number> <to_number> <amount>

Transfer money from one card to another

./remote_wallet.exe view_card <number>

View details on a specific card

./remote_wallet.exe list

List all the cards in the wallet

Both executables also have the option

./app_name.exe —help

To list all possible commands