

Data Management Systems Design

NJIT CS 631-003 Fall 2021

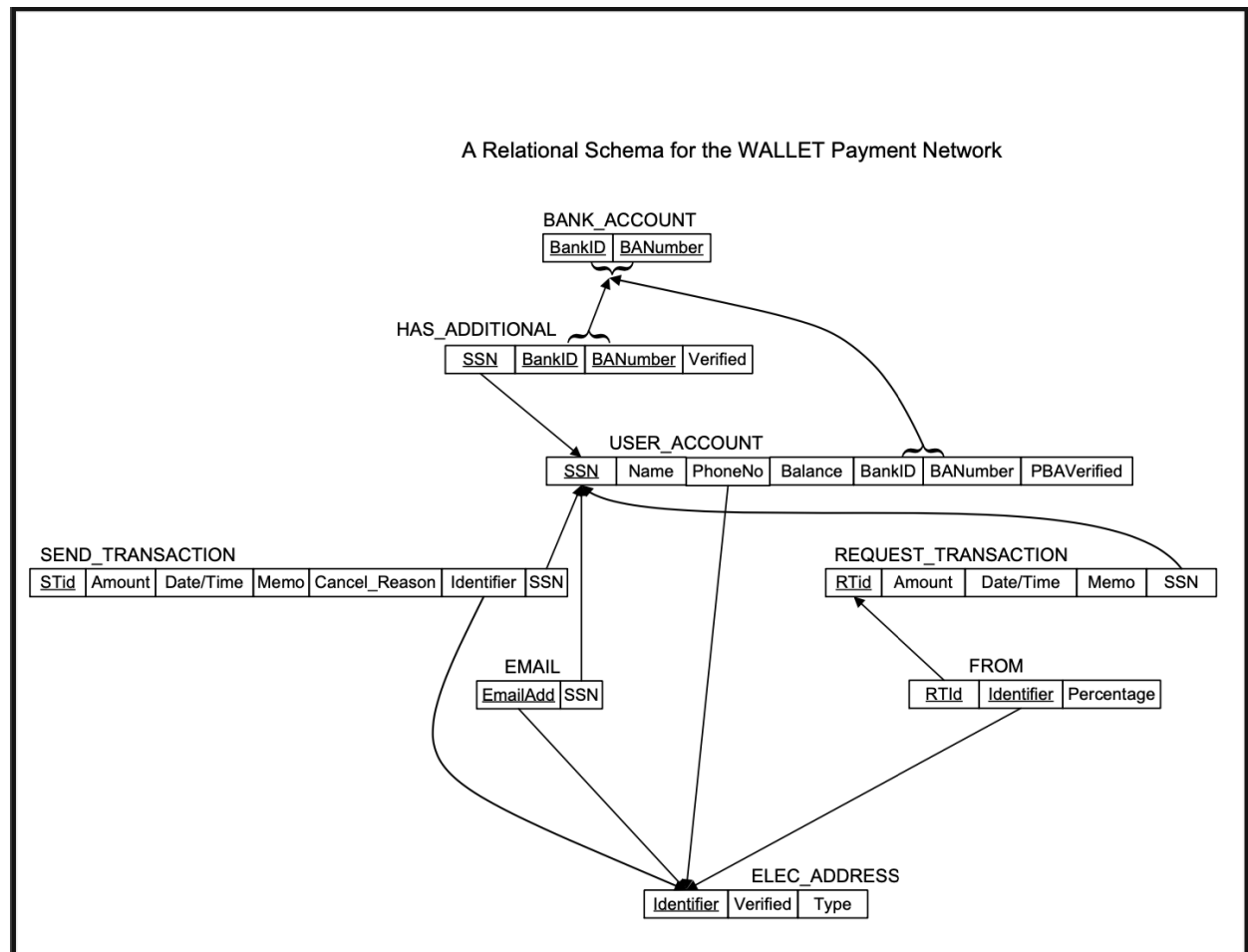
WALLET Project - Deliverable #3

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Goal Phase

Design and develop a working CLI application of the WALLET payment system.

Relational Schema



Description of Implementation

The app is a command-line app, where the GUI is a selection of enumerated menus that the user can make selections from. Built in Python.

Login Screen and Main Menu

```
wallet-project $ python3 app.py
Welcome to WALLET!
Would you like to login or register?
Type 'login' or 'register': login
Enter your SSN: 546337752
Enter your phone number: 2015556666
User 546337752 with 2015556666 has signed in
None
[MAIN MENU]
[1] account
[2] send_money
[3] request_money
[4] statements
[5] search_transactions
[0] sign_out
Selection: █
```

Account Menu

```
[ACCOUNT MENU]
[1] account_info
[2] modify_name
[3] add_email_address
[4] remove_email_address
[5] update_phone_number
[6] add_bank_account
[7] remove_bank_account
[0] main_menu
Selection: █
```

Statements Menu

```
[STATEMENTS]
[1] get_statement_by_dates
[2] get_statement_by_month
[3] get_largest_transactions
[4] get_best_friends
[0] main_menu
Selection: █
```

Send Money

```
[MAIN MENU]
[1] account
[2] send_money
[3] request_money
[4] statements
[5] search_transactions
[0] sign_out
Selection: 2

Enter the phone number of the recipient: 510382152
How much money would you like to send? $500
Add a memo: merry xmas
Success
```

Snapshot of the `user_account` database

```
template1=# select * from user_account;
   ssn   |      name      |   phoneno   |  balance  |  bankid  |  banumber  | pbaverified
-----+-----+-----+-----+-----+-----+-----
 610886428 | Jacob Stein    | 829339766   |  431.44   | 6078274839 | 6387799209 | 1
 196699163 | Cody Brown     | 233454670   | 3453.09   | 4531116371 | 8455601031 | 1
 920759210 | Jessica Hendricks | 755685076   | 3089.85   | 3407562823 | 2827223729 | 1
 191199043 | Brian Moore    | 323276394   | 8073.32   | 4195004658 | 2442153869 | 1
 623111815 | Scott Baker    | 747066155   |  189.41   | 1527933752 | 6873210018 | 1
 595070908 | Ruth Hoffman   | 973377933   | 8180.35   | 5674061254 | 9080753609 | 1
 764702584 | Daniel George  | 493347148   | 8298.97   | 1870133553 | 9829184489 | 1
 215839303 | David Moody    | 997786176   | 2114.71   | 1879525389 | 3647741353 | 1
 699446883 | Larry Morales  | 510382152   | 1146.50   | 4090941126 | 8088036982 | 1
 546337752 | ricky martin   | 2015556666  | 2552.42   | 4463111377 | 4892573628 | 1
(10 rows)
```

SQL Commands

The table-building commands can be found in `wallet.sql` and the fake data commands were generated by `create_db.py` and `fake_data.sql`.

Using the app

The app can be setup with postgres and initialized by running `wallet.sql` first, then `fake_data.sql` to populate the database with fake data. To begin the app, run `python3 app.py`.