

# IS590WFO

## Final Project Documentation

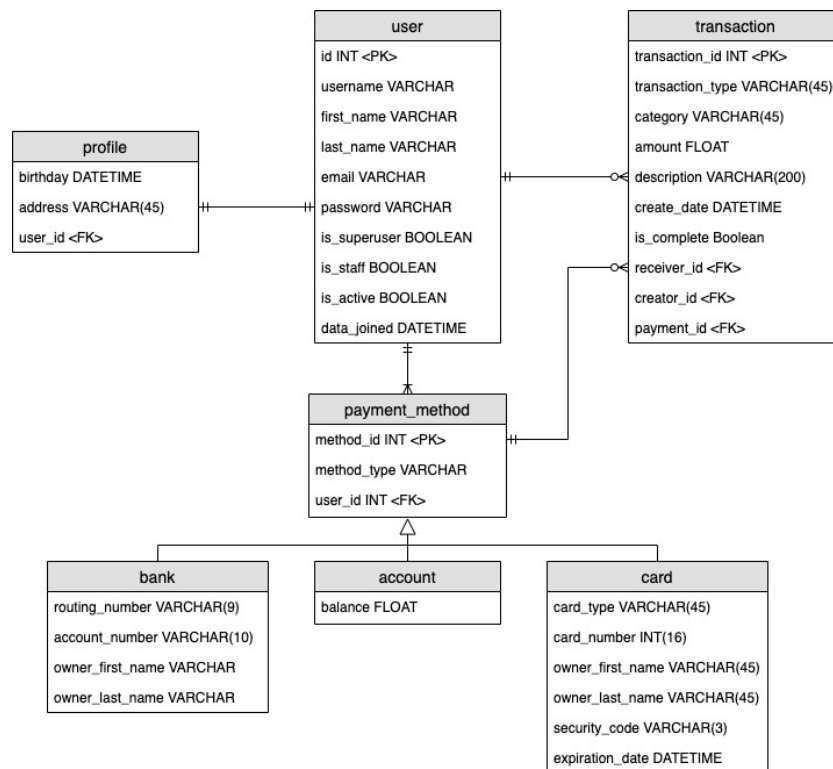
### Pin-Huey Chiang

## 1 Project Objective

This project aims to develop a virtual wallet web application which allows the users (customers) to send money to other users and manage their spending and payment information. It also has web pages for admin and staff to see the user list and all the transactions made in the app. These web pages will not be visible to regular app users.

## 2 Project Description

### 2.1 Database Design



Models	Description
User	The user model stores the user information such as username, first name, last name.
Profile	To extend the user model, which is built from Django authentication system, I also created a profile model to collect additional information such as birthday and address from the users.
Payment Method	The payment method model is a parent table that stores all the payment method.

Account	Account is a child table of Payment Method, which stores the current balance. Each account will be automatically generated when a user registers an easy pay account.
Bank	Apart from the easy pay account, users can also store their bank information as another option when making a payment.
Card	Users can also store their credit card or debit card information. Both Bank and Card table are child table of Payment Method.
Transaction	The transaction model stores the transaction information such as transaction type, category, amount when a user creates a transaction by sending money or requesting money from others.

## 2.2 Users and Groups

This project has three groups of users, normal user, staff and admin.

- **Normal User:** A normal user can create a user account, add/view/update/delete their profile, bank and card information, and create/view transactions. However, they cannot change or delete the information of a transaction once it is made. Since a normal user is not a staff, they cannot access to the admin page.
- **Staff:** The staff is like a customer service for the app. Their main role is to “delete” the wrong transactions made by the customer and return their money back. Unlike the normal users who can only see their own profile and transactions, the staff users can view the whole normal user list and transactions made by these users. They can also view a single user’s profile, bank information and card information, but they cannot change, update and delete it.
- **Admin:** Admin is the superuser of this app which can access to all web pages and add/view/create/delete all the models.

Groups	Username	Password	Description
Normal User	gillianchiang	gillianchiang	- Not allowed to access the admin page.
	johnsmith	johnsmith	- Allow to add/view/update/delete user profile, bank, card information - Allow to add/view transactions
Staff	staff	(secret)	- Able to access the admin page - Can only view user profile, bank, card information - Allow to delete the transactions
Admin	admin	admin	- Allow to access the admin page - Can add/view/update/delete all the models

## 2.3 Project Functions

### 2.2.1 Regular User

User Management (Links: Login/Sign Up/User Profile/Change Password)	
Registration	Provide a registration form for new users, these users will be registered as “normal user”.
Login/Logout	Allow users to login/logout using their registered username and password.
View/Update User Profile	Users can <u>view or update</u> his/her personal information.
Change Password	Users can <u>change</u> their password once they login to their account. Users are required to login again with their new password after they change it.

Payment Method Management (Link: Wallet)	
Easy Pay Account	This is one of the payment methods that can be used for making a transaction. The default balance is 0 and will change once they receive money from others. There is also a “transfer bank” link for the users to transfer their money to bank.
Bank Information	Users can <u>create, view, update and delete</u> their bank information.
Card Information	Users can <u>create, view, update and delete</u> their card information.

Transaction Management (Link: Send & Request)	
Send Money	Users can send money to another existing user. The users are asked to search the user they want to send first, then input the amount, item description and payment method.
Request Money	Users can request money from another existing user. The users are asked to search the user they want to request money from first, then input the amount, item description.
Incomplete Transaction	Users can <u>view</u> their incomplete transactions in this page. This includes the “incomplete payment” that the login user needs to complete and the “incomplete requests” that request from login user.
Activity	User can <u>view</u> their past transactions.

### 2.2.2 Staff User

User Management (Link: User List)	
User Account	Staff users are only allowed to <u>create</u> their account from the admin

	page. Once they login, they can see two links in their <b>Home</b> page, <b>User List</b> and <b>Transactions</b> , which cannot be seen by a normal user.
User List	User List is a list of all the “normal users” that have registered an account. The staff user can <u>view</u> the users’ basic information in this page. If they want to see more detail information, they can click the profile button one the right.
User Information	This function allows the staff users to <u>view</u> a specific normal user’s profile transaction, and payment information.
User Transactions	The staff is able to <u>view</u> the transaction information a specific user made or money he/she received. They are also allowed to <u>delete</u> the transactions if that user made a wrong transaction.
Use Payment Method	This page allows the staff to <u>view</u> all the payment information including bank account and card information of a specific user.

Transaction Management (Link: Transactions)	
Transaction List	This function allows the staff to <u>view</u> all the transactions made in this application.
Transaction Detail	The staffs can <u>view</u> transaction details and <u>delete</u> the wrong transactions in this page.

### 3 Testing Instructions

#### 3.1 Instructions

##### 3.1.1 Login as a normal user

- When you open the app for the first time, you will only see an index page with a login button on the right-upper corner. To test the application, please register for a user account first. You can find the “Sign Up” link after you click the login button.
- After the account is created, you will see **Activity**, **Send & Request**, **Wallet**, **User Profile** on the top navigation bar.
- Wallet** page includes three different tabs once you click the link, which is **Easy Pay Account**, **Bank Information** and **Card Information**, respectively. These are the payment method you can use for sending money to others
- Send & Request** page also includes three tabs, which are **Send Money**, **Request Money** and **Incomplete Transaction**, respectively.
- Add new payment method such as bank account or card first in **Wallet** before making

a transaction in **Send & Request** for the first time. If you directly go to “Send & Request” to make a transaction, you will be asked to add a new payment method such as bank account or card in the “Wallet” since your account balance is 0.

- f. To send or request money, you will be asked to search for the user by their username that you would like send to/request from. You can search for the username I’ve already created, which is listed in section 3.2 or create another user account to make a transaction. You can only send or request money to an existing user.
- g. Once you send money to other users, you can check your transaction history in the **Activity** page. If you request money, you can see the incomplete transaction from **Incomplete Transaction tab** located in “Send & Request” page.
- h. If you are asked to complete a transaction from another users, you can also see it in **Incomplete Transaction**. There will be a button for you to complete the transaction. All the completed transactions will be shown in the **Activity** page.

### 3.1.2 Login as a staff

- a. Please use the username and password provided in section 3.2 to login as a staff
- b. After you login, you will only see **User List** and **Transaction** on the navigation bar.
- c. **User List** contains a list of all the normal users. The staff is able view the profile, transaction, payment method of any normal users. The staff cannot edit or delete the profile or payment information, but they can delete the transactions.
- d. **Transaction** contains a list of all the transactions made by the users. The staff can see the transaction details and delete the transaction. Once the transaction is deleted, the money will return to the users account.

### 3.2 Lists of user IDs and passwords

Groups	Username	Password
Normal User	gillianchiang	gillianchiang
	johnsmith	johnsmith
	jennylin	jennylin
Staff	staff	(secret)
Admin (Superuser)	admin	admin