

Fancy Bank

The Main class is located at windows builder.java

List of Classes

1. Account.java contain classes of object Account. It is to store the account data such as Account type, Amount of money, currency and so on
2. Account controller. This is the main engine regarding account
3. AccountListView. This is the GUI of account that display a grid of list of account
4. AccountType is enum class for type of account, Checking and Saving
5. AddAccountView. This class is the GUI for adding an account
6. Currency type is enum of list of currency
7. CustomerSideBar. This is the side panel that display menu bar when customer sign in to the system
8. Data. It is the place to store all the data and initialize the data. It is some kind of mock database
9. DepositWithdrawView. The GUI for deposit/withdrawal function
10. FeesAndInterest. To calculate fees and interest class
11. Loan. Java. This is the data model for loan
12. LoanApplication.java. The GUI for customer to request loan
13. LoanList.java GUI that contain the table of list of loan
14. LoanStatus is the Enum of Loan Status
15. LoanType is the enum of LoanType (Personal, Auto, Home Business)
16. LoggedUser. It is the data model of the user that is now logging in
17. Data Model that is used by NewLogin GUI
18. ManagerSideView. This is the side bar that contain menu bar when manager sign in
19. NewLoginController. The main engine that control Login
20. NewLoginView is the GUI for login page
21. PanelData. This is the initial set up of the GUI and the class that responsible in replacing the panel, side bar and the main panel
22. ProfileController. The main engine that is responsible for profile
23. ProfileView. The GUI of profile
24. Profiles. The data model of profile
25. SpringUtilities . Helper class that help to make form in the UI
26. Transaction. Data model for transaction
27. TransactionController. Main engine for Transaction
28. TransactionType is enum of transaction type (deposit, withdraw)
29. TransactionView. GUI for transaction
30. UserType. Enum of the user type (customer, bank manager)
31. WindowsBuilder.java The class that contain main function

I implemented the design pattern that almost resemble MVC (Model View Controller). I separated the view from the controller and the model so that it can be reused. The

controller decided which view to be displayed at any instances and which model to be populated or to be used to send data to the View.

The reasons to choose this method:

1. to decouple the view from the controller so that the View can be reused with minimal changes.
2. The same view can be called by many controllers as well.
3. If the project is done by multiple people, the development can be done faster and without overlaps since a developer can focus on one module only without interfering on other modules
4. Modification in one controller/views will not affect other views or controller

The view is a class that extends JPanel. When a view is called, this view replaces the existing JPanel in the GUI that is being displayed. The reason to do this is to make the view versatile. The view can be a completely new view or can be a combination of many views.

The flow

User will be prompted with login screen. The system will determine whether the user is a customer or bank manager and will display the side bar accordingly. User can also create an account when he does not have an account yet in our system.

Welcome to Fancy Bank

Please log in

Email

Password

As a user: email: 0john@google.com

Pass : Password

When login is successful, user will be redirected to Profile page. He can choose to update his profile information

Welcome to Fancy Bank

[My Profile](#)
[Account List](#)
[Create New Account](#)
[Loan List](#)
[Apply New Loan](#)
[Log out](#)

Profile Detail

Email

First Name

Middle Name

Last Name

Address

Password

Account List

Welcome to Fancy Bank

[My Profile](#)
[Account List](#)
[Create New Account](#)
[Loan List](#)
[Apply New Loan](#)
[Log out](#)

List of your account

[Deposit/Withdraw](#)[Create New Account](#)

Account Number	Friendly Name	Account Type	Currency	Amount
1e93512a-9f8a-4b1c-8...	My Friendly Account	Checking	USD	3000

This page displayed all account that he has

When clicking the record, system will redirect to list of transaction related to this account

Welcome to Fancy Bank

My Profile

Account List

Create New Account

Loan List

Apply New Loan

Log out

List of transaction

Transaction Number	Customer Name	Amount	Transaction Type	Fee	Date
f9956888-5efb-4ed...	Doe0	300	Withdraw	10	Mon Oct 21 07:43:

When clicking Deposit/Withdraw at Account list will redirect to deposit or withdraw screen

Welcome to Fancy Bank

My Profile

Account List

Create New Account

Loan List

Apply New Loan

Log out

Account Name

Checking-My Friendly Account-6000

Transaction Type

Withdraw

Amount

Save

When creating Add New Account at the Account List screen or on side bar, System will redirect to creation of account

Welcome to Fancy Bank

My Profile

Account List

Create New Account

Loan List

Apply New Loan

Log out

Add account

Account Type

Checking

Currency

USD

Friendly Name

Save

When clicking Loan List, system will redirect to list of loan

Welcome to Fancy Bank

My Profile

Account List

Create New Account

Loan List

Apply New Loan

Log out

List of your loan

Request New Loan

Loan Number	Loan Type	Amount	Interest (%/year)	Collateral	Status	Start Date	Te
79e6632f-cc2...	Auto	1000	3.5	A house in Mia...	Approved	Sun Oct 20 22:...	10

When clicking Apply New Loan from side bar or Request New Loan in Loan list screen, system redirects to Loan Application screen

Welcome to Fancy Bank

My Profile

Account List

Create New Account

Loan List

Apply New Loan

Log out

Apply for new loan

Loan Type

Personal

Amount

Term in years

Colateral

Save

Log out will clear LoggedUser and redirect to login screen

As A manager

Email : manager@google.com

Pass : Password

Welcome to Fancy Bank

Customer List

Loan List to Approve

Transaction List

Log out

List of customers

Customer Id	Customer Name	Number of Account	Number of Loan	Total Loan Amount	Number of Account	Total Balance
a27ec086-9eca-...	Doe0, Jhon0 M	1	1	9000	1	8000
6b5a76e7-3a25...	Doe1, Jhon1 M	1	1	6000	1	9000
bf6dfa0b-dab1-...	Doe2, Jhon2 M	1	1	4000	1	4000

When clicking on the row of the record, system redirect to the profile of that clicked user

Welcome to Fancy Bank

Customer List

Loan List to Approve

Transaction List

Log out

Profile Detail

Email0john@google.com

First NameJhon0

Middle NameM

Last NameDoe0

AddressBoston

Password●●●●●●

Save

When clicking Loan List to Approve

Welcome to Fancy Bank

Customer List

Loan List to Approve

Transaction List

Log out

List of loan

Requestor	Loan Number	Loan Type	Amount	Interest (%/year)	Collateral	Status	Term in Years
Doe1, Jhon1 M	61fad352-a94...	Personal	3000	0.0	A car	Pending	30.0

When clicking Transaction list on side bar

Welcome to Fancy Bank

Customer List

Loan List to Approve

Transaction List

Log out

List of transaction

Transaction Number	Customer Name	Amount	Transaction Type	Date
d58deca9-3653-4dc6-a...	Doe1	3000	Deposit	Sun Oct 20 23:21:31 ET

When clicking New User in Login screen, sstem will redirect to Profile Page, but with empty form

Welcome to Fancy Bank

Profile Detail

Email

First Name

Middle Name

Last Name

Address

Password