#### **BANK APPLICATION**

**Types:** There are three types of users for this application.

- 1) Admin.
- 2) Manager.
- 3) Clerk.

#### Users and their roles:

- 1) Admin: Among all the users, Admin can perform all actions on an account. Th actions include creating new account, create new user for the application, Suspend a account and delete a account.
- 2) Manager: Manager is also an user who has limited actions. The actions include update account, Transfer fund that require approval.
- 3) Clerk: Clerk is the low tier user who can only perform action fund transfer and get transaction history.

#### **Actions:**

- 1) **Login**: This is used to login for particular person. It takes parameters like username and password. If login fails he/she will be redirected to home page.
- 2) **AddUser**: This action allows us to add user. The inputs are username, password, user type, address, phone number, email, aadhar card and pan card.
- 3) **Deposit:** This action allows us to deposit money in user account. It takes parameters like account number and amount to be deposited.
- **4) Withdraw:** This action allows the user to withdraw money from his account. It takes two parameters like account number and amount to withdraw.
- 5) Fund Transfer: This action allows an user to transfer fund from one account to another. It takes 3 parameters from account number, to account number and amount to transfer.
- 6) AddAccount: It is similar to add user but it takes an extra input called user type which indicates whether the user is an admin, manager or clerk.
- 7) ShowAllAccounts: Show all accounts is used to display all the accounts in the accounts table.
- **8) ShowAllUsers:** Show all users is used to display all the users in the users table which include admin, manager or clerk.
- 9) UpdateAccount/UpdateUser: Used to update details for an user or an account.

#### Validations:

**Account number:** Account number is validated by checking whether it is already existing in database or not.

**Withdraw:** The amount for withdraw will also be validated since it should always be less than the current balance.

**Fund Transfer:** Fund transfer also requires validation for both account numbers and money to be transferred.

❖ Validations also include not null(which indicates that the details should be filled), should enter number(should enter number only), should enter string(should enter string only) etc.

## **Updating User/Account:**

While updating user/account only specific data can be updated. The data are Address, Phone and Email.

- ❖ Aadhar card and Pan card cannot be updated for an user/account.
- ❖ The type of user can also be changed by the admin.

# **Output:**

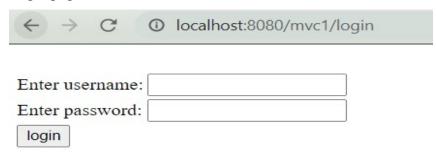
Home page

| <b>←</b>     | $\rightarrow$ | C | ① localhost:8080/mvc1/ |  |
|--------------|---------------|---|------------------------|--|
| Logi<br>sigm |               |   |                        |  |

# Sign up page

| ← → G           | localhost:8080/mvc1/signup |
|-----------------|----------------------------|
| Enter username: |                            |
| Enter password: |                            |
| sign up         |                            |

## Login page



# Admin welcome page:

| ← → C ① localhost:8080/mvc1/home |  |
|----------------------------------|--|
|----------------------------------|--|

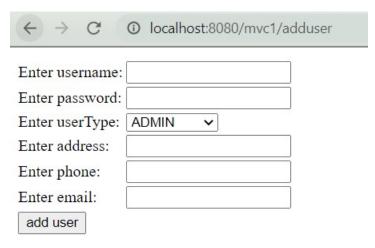
# Welcome, ADMIN

Show All Users
Show All Accounts
Add User
Add Account
Logout

#### Show all users



### Add user



# Add account

| ← → C  |
|--|
| Enter name:  |
| Enter balance:   |
| Enter address:   |
| Enter phone:   |
| Enter email:   |
| Enter AadharCard:                                      |
| Enter Pan Card:  |
| add account  |
| Transfer Amount:  ← → ♂ ① localhost:8080/mvc1/transfer |
| Enter from account                                     |
| Enter to account                                       |
| Enter amount   |
| Submit   |
|  |
| Withdraw amount  |
| ← → ♂ localhost:8080/mvc1/withdraw                     |
| Welcome  |
| Enter account number:                                  |
| Enter amount to be transferred:                        |
| transfer amount  |
|  |
|  |
| Deposit amount   |
| Deposit amount  ← → C ① localhost:8080/mvc1/deposit    |
|  |
| ← → C ① localhost:8080/mvc1/deposit                    |
| ← → C ① localhost:8080/mvc1/deposit  Welcome           |

# Success page



success money is transfered <u>transfer</u>