HCL Bank Web Application

Users:

1.Admin

- Can add a new account and new administration user
- .Can view all accounts and users.
- Can update an account or delete an account.

2.Manager

- Can transfer,deposit and withdraw money.
- Can view all accounts.

3.Clerk

- Can view only transaction log information.

Actions:

1.**Login :**This is used to login for a particular person. It takes parameters like username and password. If login fails he/she will be redirected to the home page.

2**.Add Account:** This is used to create a new bank account by the admin. The inputs are name, address, phone number, email,account type,balance, aadhar card and pan card.

3.**Add User:** This is used to create a new administrative user account by the admin. The inputs are username, password, address, phone number, email, user type.

4.**ShowAllAccounts:** This displays all the accounts in the database.

5.**Update Account:** This is used to update details of the account like phone, email, address.

6.**Delete Account:** This is used to suspend or delete the account from the database.

7.**Transfer:** This is used to transfer money from one account to another account. The inputs are from account id, to account id and the amount to be transferred.

8.**Deposite:** This is used to deposit money into an account. The inputs are to account id and the amount to be deposited.

9.**Withdraw:** This is used to withdraw money from an account. The inputs are from account id and the amount to be transferred.

10.**Transaction Log:** This is used to display the transaction details of the accounts.

Configuration: Java Configuration is used instead of xml.

- **Configuration Files:** Model Config, Web Config, Web Initializer.

DAO Layer:

- **Entities:** Account, TransactionLog, User, Account Type, Account Status, User Type, Transaction Type.
- **Interfaces:** AccountDao, TransactionLogDao,UserDao.
- **Exceptions:** Account not found, user not found.

Service Layer:

- **Interfaces:** AccountService, TransactionLog Service, User Service.
- **Aspects:** Loggable(custom annotation), Logging Aspect.

Web Layer:

- **Controller:** Account Controller, Transaction Controller, User Controller, Login Controller.
- **Form Beans:** Account Bean, User Bean, Login Bean, Transfer Bean, Withdraw Bean, Deposit Bean

Resources: Database properties, log4j, Validation Properties.

Views: Add account, add user,all accounts, update account, home, login. logout, deposit, transfer, success,txlog, 404, db error.

CSS Resources: Form, table.

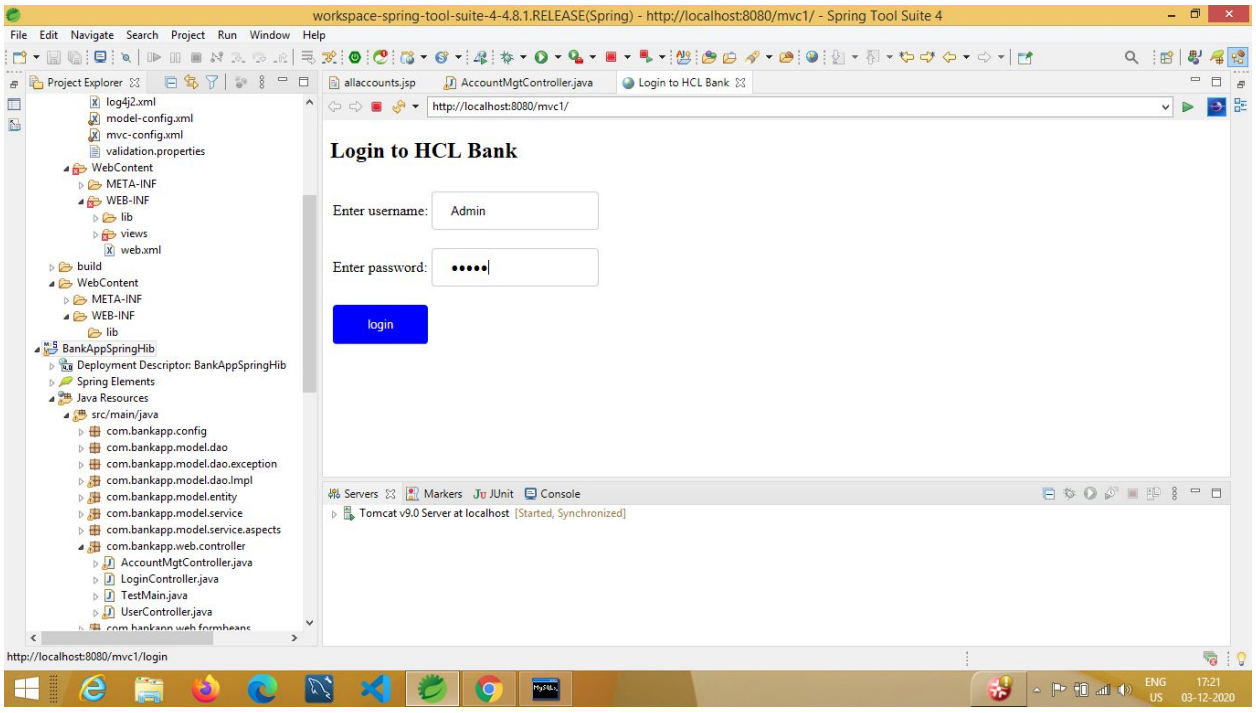
Validations:

Account Number: Account number cannot be empty.

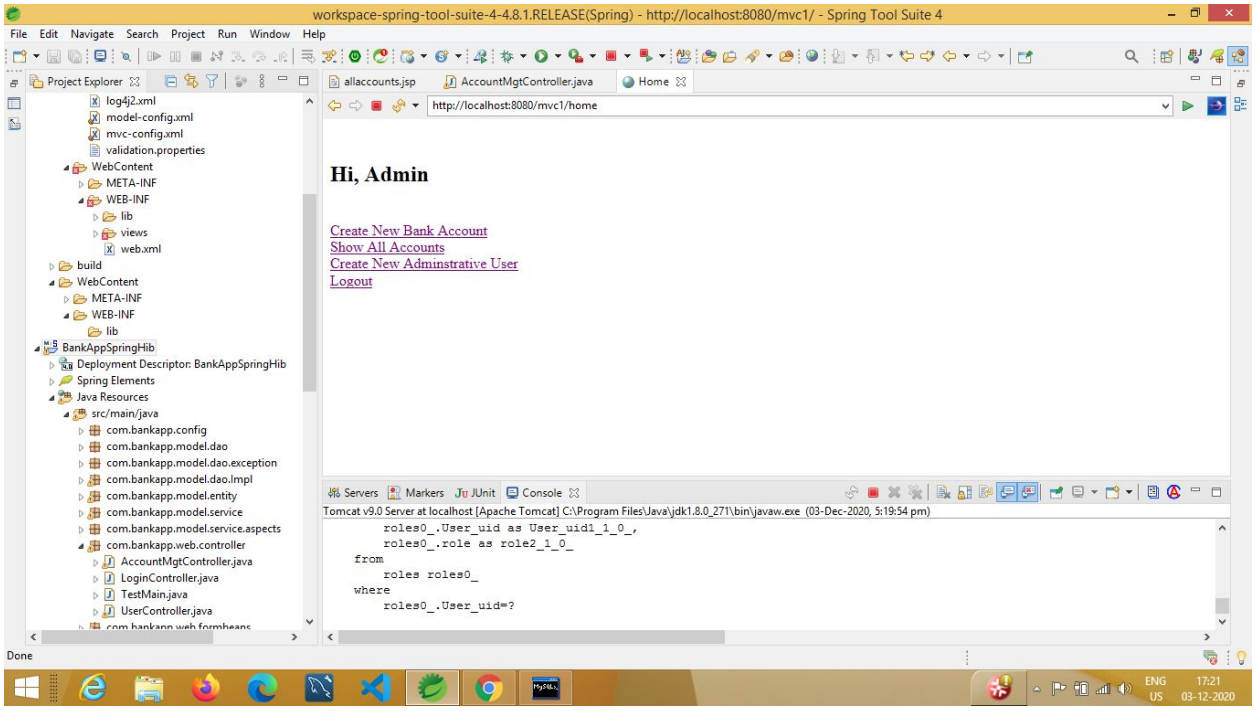
Amount: Amount cannot exceed the limit while transfer and deposit actions and cannot be less than minimum balance while withdrawal action.

Type Mismatch: The entry should match with the type of field i.e numeric or string.

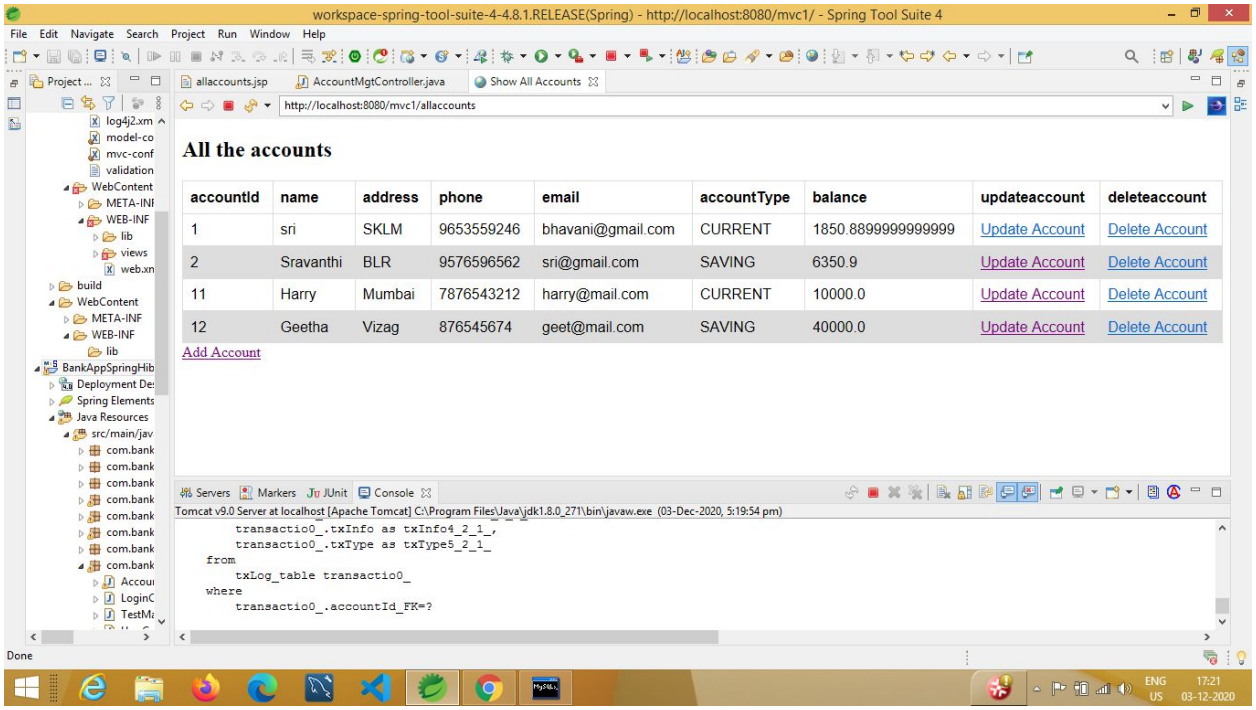
Login Page:



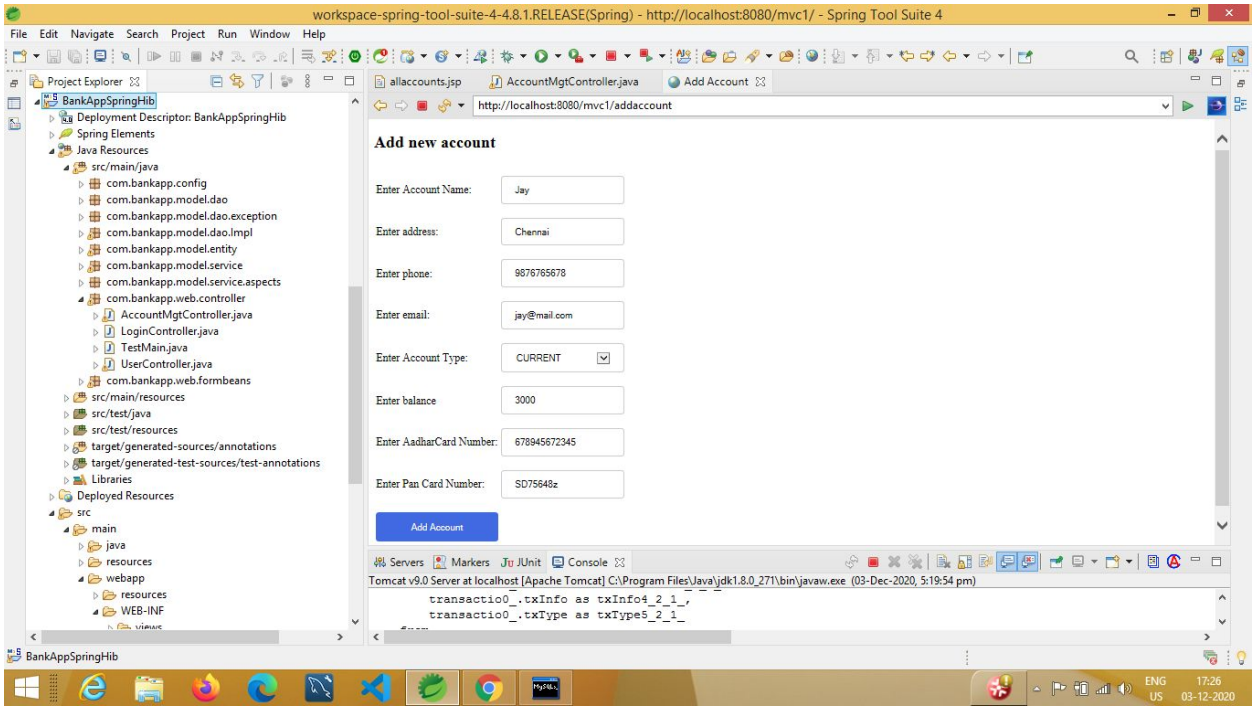
Admin Page:



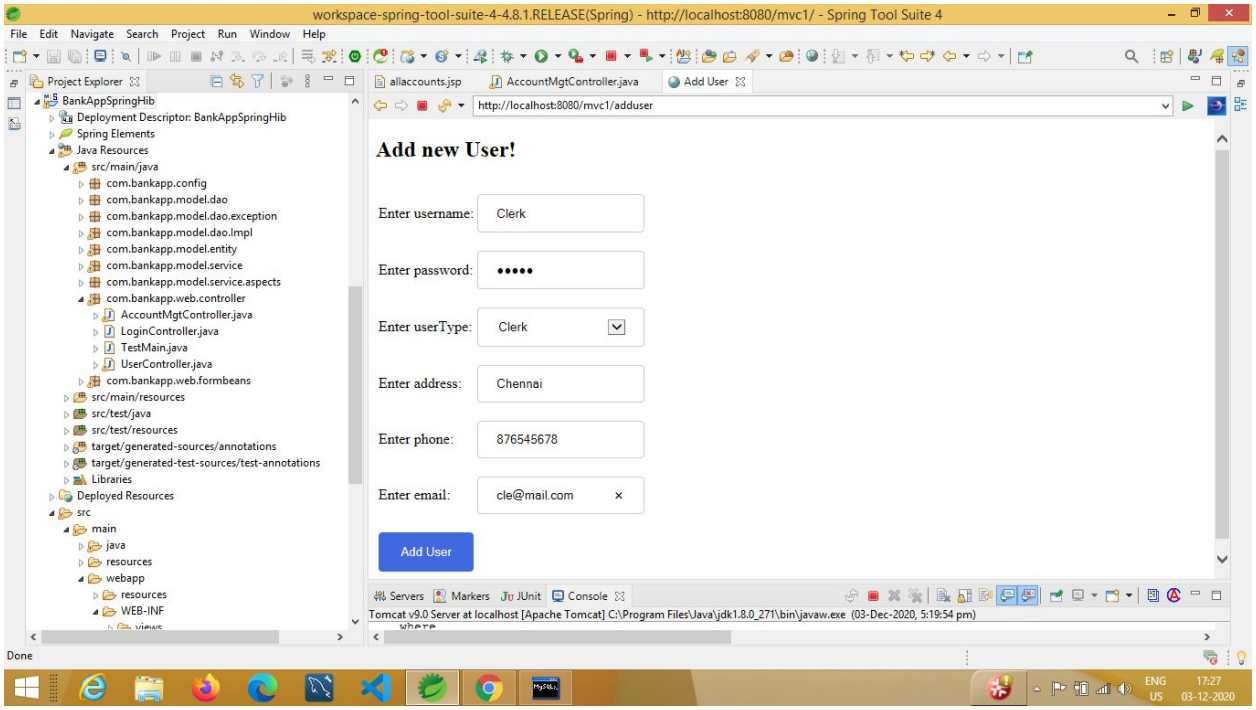
All Accounts:



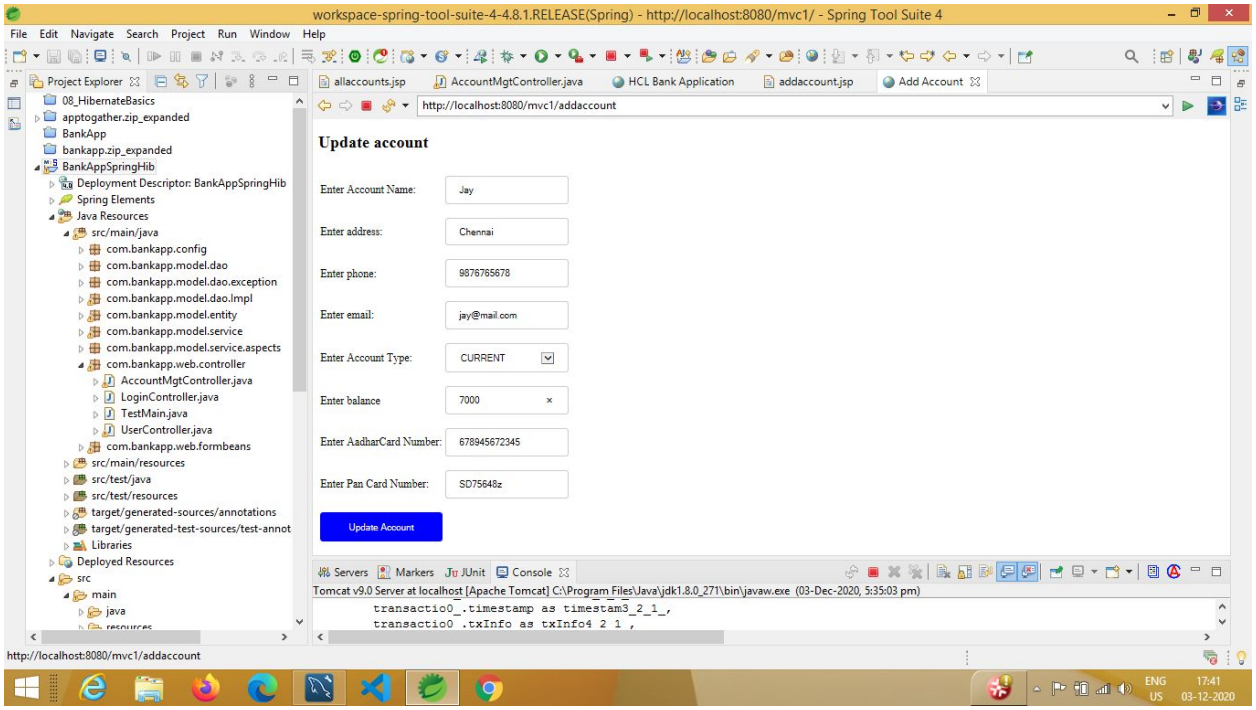
Add new account:



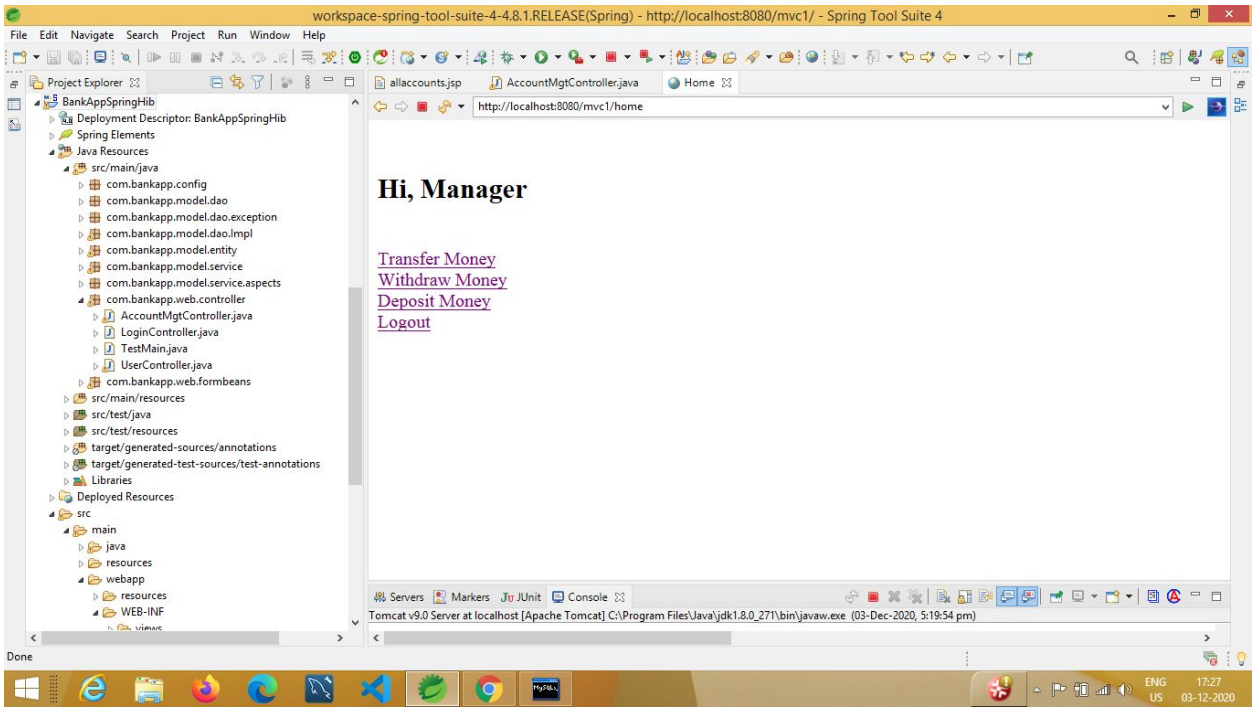
Add new user:



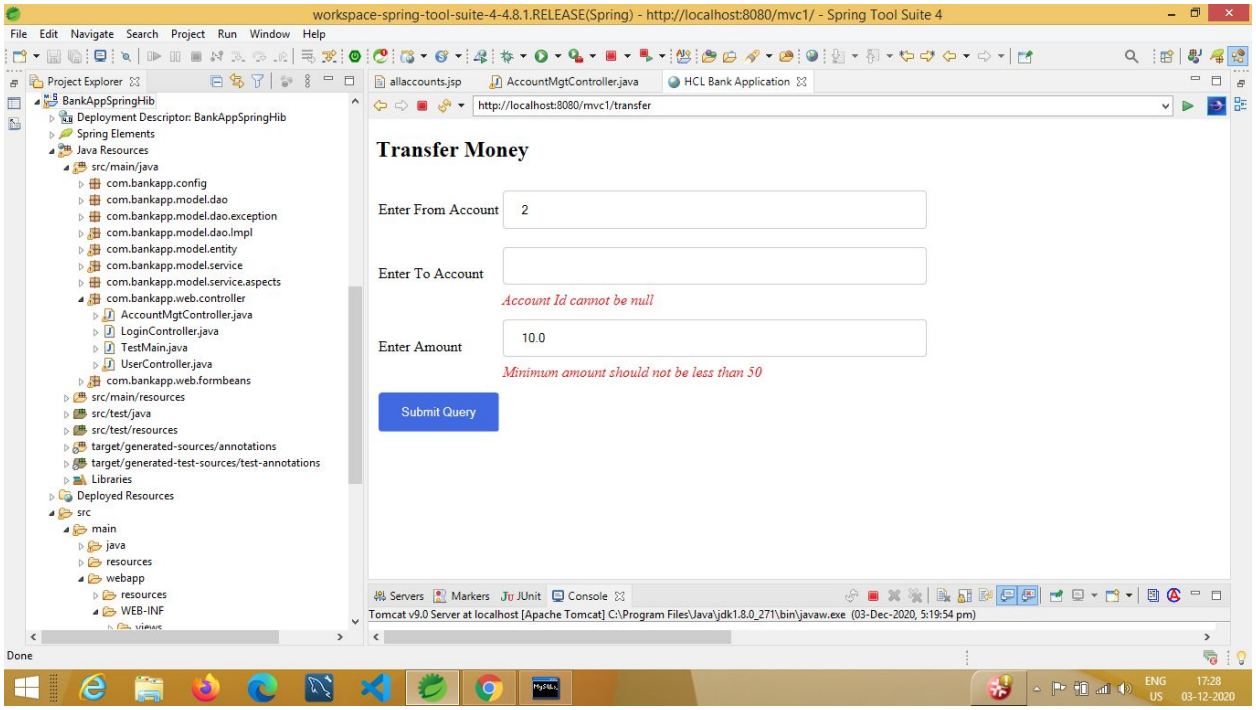
Update Account:



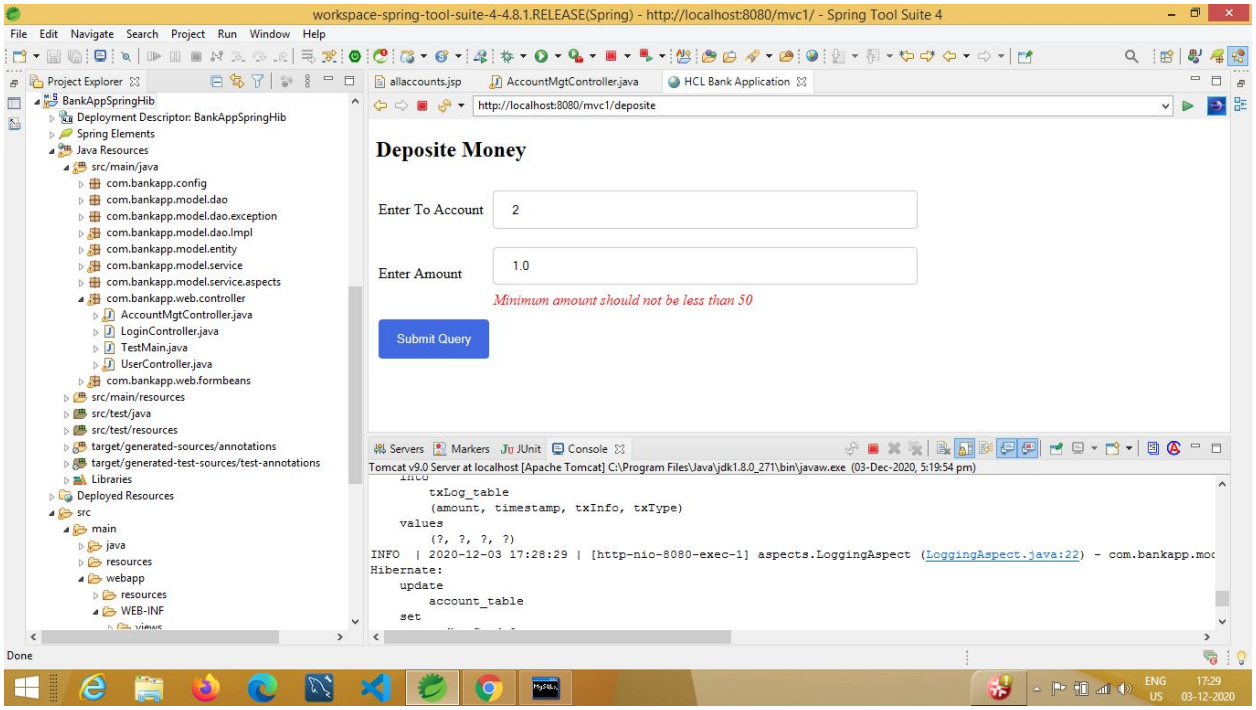
Manager Page:



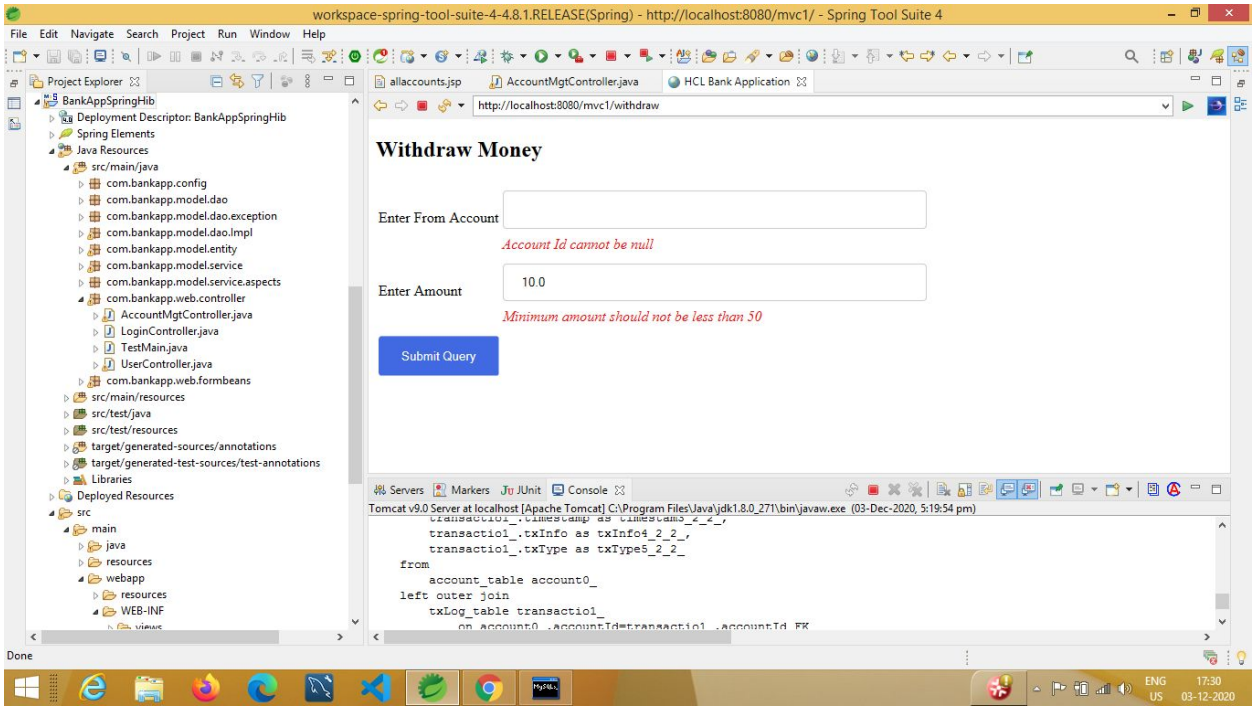
Transfer Money:



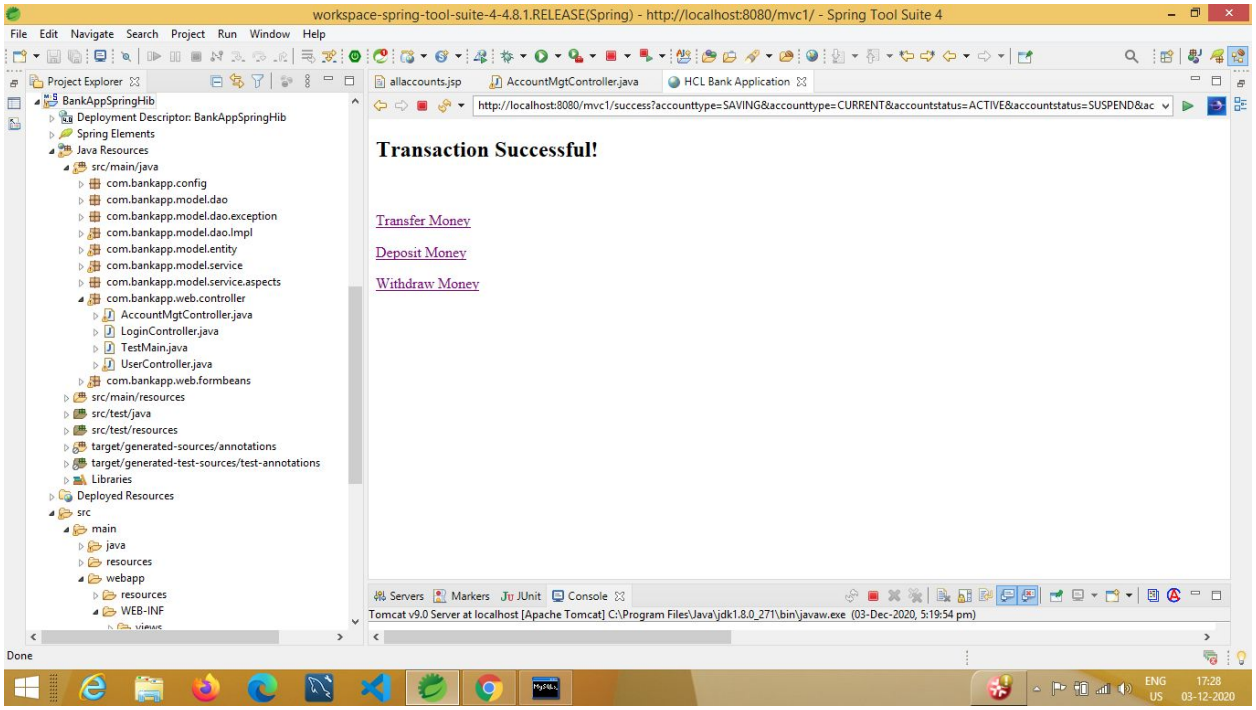
Deposit Page:



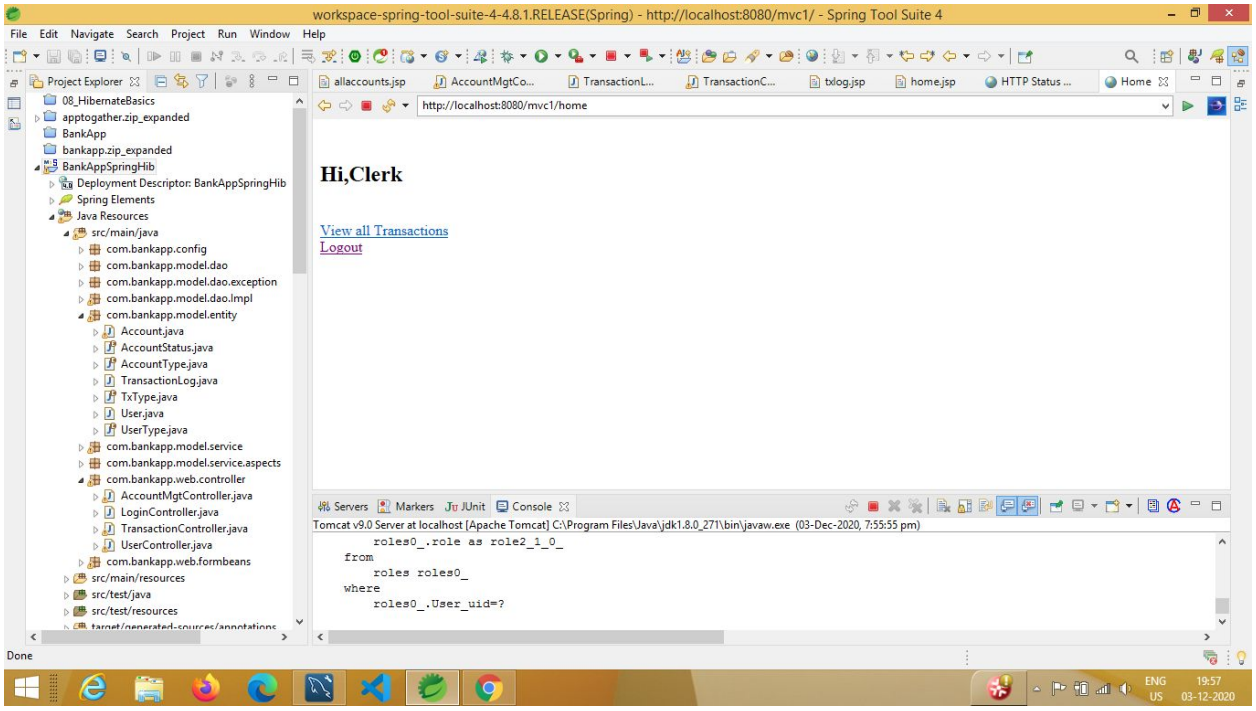
Withdraw Page:



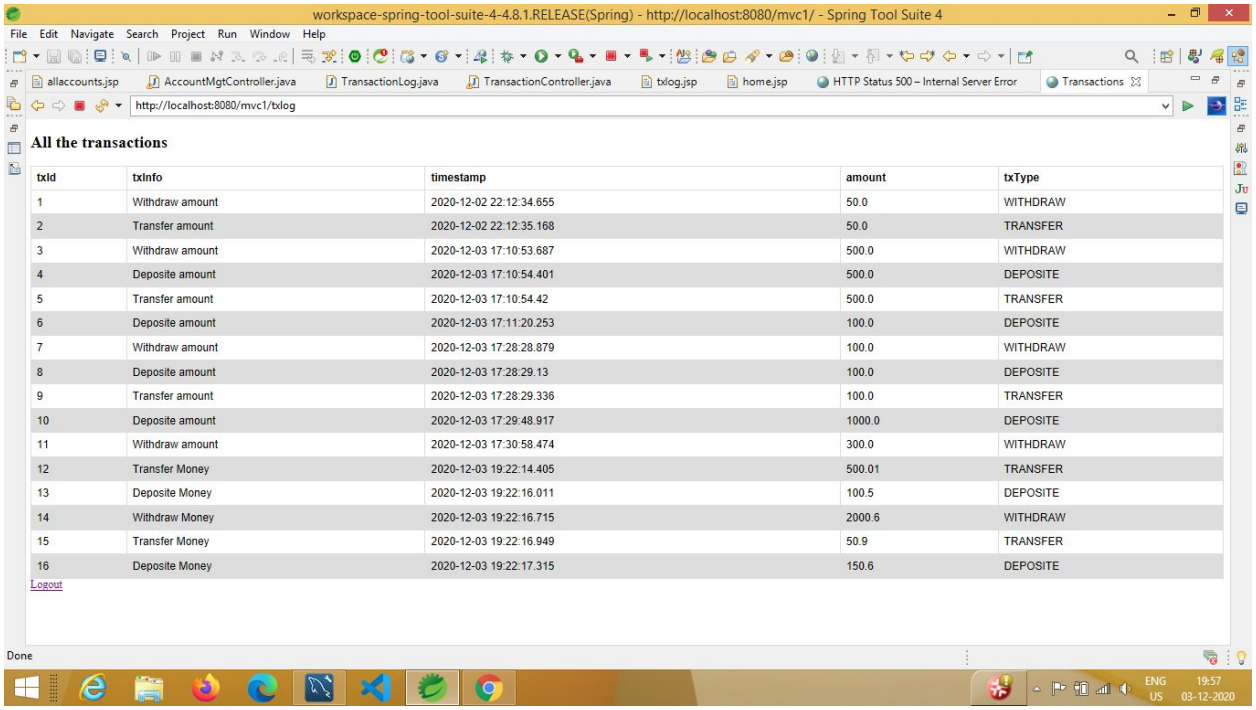
Success Page:



Clerk Page:



Transactions:



txId	txInfo	timestamp	amount	txType
1	Withdraw amount	2020-12-02 22:12:34.655	50.0	WITHDRAW
2	Transfer amount	2020-12-02 22:12:35.168	50.0	TRANSFER
3	Withdraw amount	2020-12-03 17:10:53.687	500.0	WITHDRAW
4	Deposite amount	2020-12-03 17:10:54.401	500.0	DEPOSITE
5	Transfer amount	2020-12-03 17:10:54.42	500.0	TRANSFER
6	Deposite amount	2020-12-03 17:11:20.253	100.0	DEPOSITE
7	Withdraw amount	2020-12-03 17:28:28.879	100.0	WITHDRAW
8	Deposite amount	2020-12-03 17:28:29.13	100.0	DEPOSITE
9	Transfer amount	2020-12-03 17:28:29.336	100.0	TRANSFER
10	Deposite amount	2020-12-03 17:29:48.917	1000.0	DEPOSITE
11	Withdraw amount	2020-12-03 17:30:58.474	300.0	WITHDRAW
12	Transfer Money	2020-12-03 19:22:14.405	500.01	TRANSFER
13	Deposite Money	2020-12-03 19:22:16.011	100.5	DEPOSITE
14	Withdraw Money	2020-12-03 19:22:16.715	2000.6	WITHDRAW
15	Transfer Money	2020-12-03 19:22:16.949	50.9	TRANSFER
16	Deposite Money	2020-12-03 19:22:17.315	150.6	DEPOSITE