

LOW LEVEL DESIGN

Banking Application (Console based
application)

The Bank Management System application defines all available operations in a Bank interface, according to the Data Access Object Pattern (DAO). The actual implementations of this interface are interchangeable and do not require changes on the front-end.

```
<terminated> Atm [Java Application] C:\Program Files\Java\jdk-17.0.4.1\bin\javaw.exe (18-May-2023, 12:34:27 pm - 12:37:41 pm) [pid: 11624]

***** Welcome To  ATM APPLICATION *****

KINDLY ENTER THE USER ID: rv123
ENTER PIN: 1234

*****
Welcome to BANKING APPLICATION
*****

SELECT THE ACCOUNT TYPE:
_____

1. SAVINGS ACCOUNT
2. CURRENT ACCOUNT

choice: 1

                OPTIONS
                _____

1. DEPOSIT          2. WITHDRAWAL
3. TRANSFER         4. TRANSACTIONS HISTORY
5. BALANCE          6. QUIT

*****

Enter your choice: 1
Enter amount to be deposited: 50000
Amount credited: 50000
```

The application has six persistence entities that correspond to the database tables: Account, Branch, Customer, Employee, Loan, and Transaction.

Abstract class Person reuses repeating code for Customer and employee.

The actions over the persistence entities are controlled via controller classes, one controller for each of the persistence entities. These controllers are to be called in the implementation of the Bank interface.

The most important class to pay attention to is the Transaction Controller with withdraw(), deposit() and transfer() methods, all of which must provide absolute accuracy as neither bank nor client is willing to lose money. Such methods should be managed as a single unit of work (database transaction) with the ability to roll back all changes, and include multiple checks of sending and receiving accounts, checks for fraud, and others before committing the transaction.

```

                                OPTIONS
                                _____
1. DEPOSIT                    2. WITHDRAWAL
3. TRANSFER                   4. TRANSACTIONS HISTORY
5. BALANCE                    6. QUIT
*****
Enter your choice: 2
Enter amount to be withdrawn: 10000
Amount debited (self): 10000
```

```

<terminated> Atm [Java Application] C:\Program Files\Java\jdk-17.0.4.1\bin\javaw.exe (18-May-2023, 12:34:27 pm - 12:37:41 pm) [pid: 11624]
                                OPTIONS
                                _____
1. DEPOSIT                    2. WITHDRAWAL
3. TRANSFER                   4. TRANSACTIONS HISTORY
5. BALANCE                    6. QUIT
*****
Enter your choice: 3
Enter amount to be transferred: 4000
Transferring Money...
Amount Transferred successfully...!!
```

OPTIONS

- | | |
|-------------|-------------------------|
| 1. DEPOSIT | 2. WITHDRAWAL |
| 3. TRANSFER | 4. TRANSACTIONS HISTORY |
| 5. BALANCE | 6. QUIT |

Enter your choice: 5

Account Balance is: 36000

OPTIONS

- | | |
|-------------|-------------------------|
| 1. DEPOSIT | 2. WITHDRAWAL |
| 3. TRANSFER | 4. TRANSACTIONS HISTORY |
| 5. BALANCE | 6. QUIT |

Enter your choice: 6

MESSAGE:

ThankYou for using ATM APPLICATION!!!

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