



**PES University, Bengaluru**

(Established under Karnataka Act 16 of 2013)

**Department of Computer Science & Engineering**

**Session: Jan - May 2022**

**UE19CS353 – Object Oriented Analysis and Design with  
Java**

**Theory ISA (Mini Project)**

Report on

**Banking System**

**Pallavi Prabhu – PES2UG19CS274**

**Poorani R – PES2UG19CS284**

**Preetha Narayanan – PES2UG19CS294**

**6<sup>th</sup> Semester E**

# I. Project Description

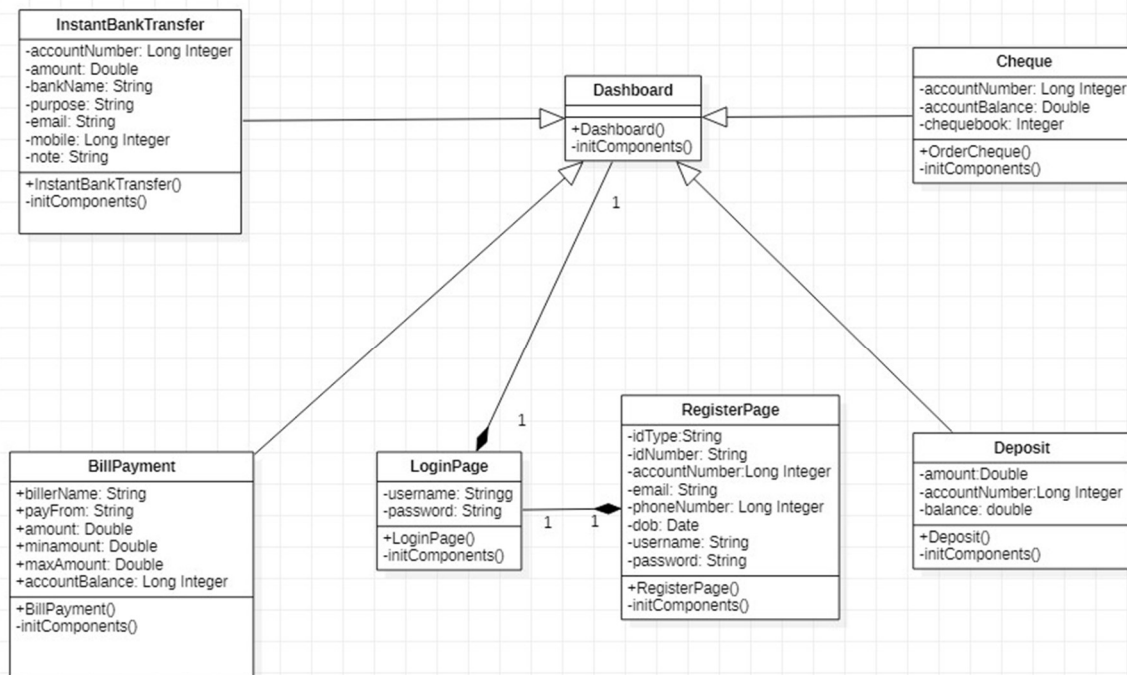
[Poorani-R/Banking-System \(github.com\)](https://github.com/Poorani-R/Banking-System)

## II. Analysis and Design Models

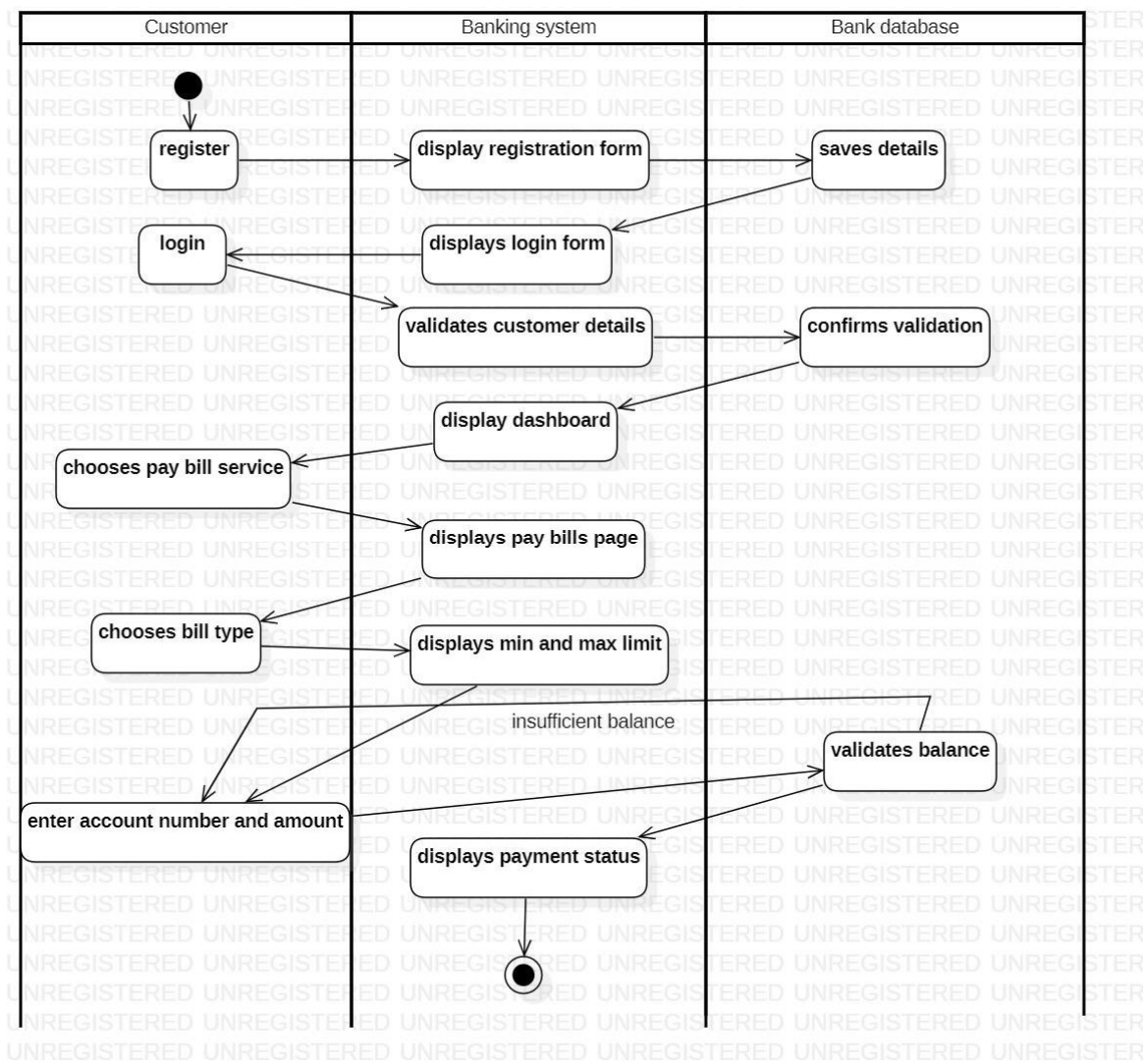
### 1. USE CASE DIAGRAM



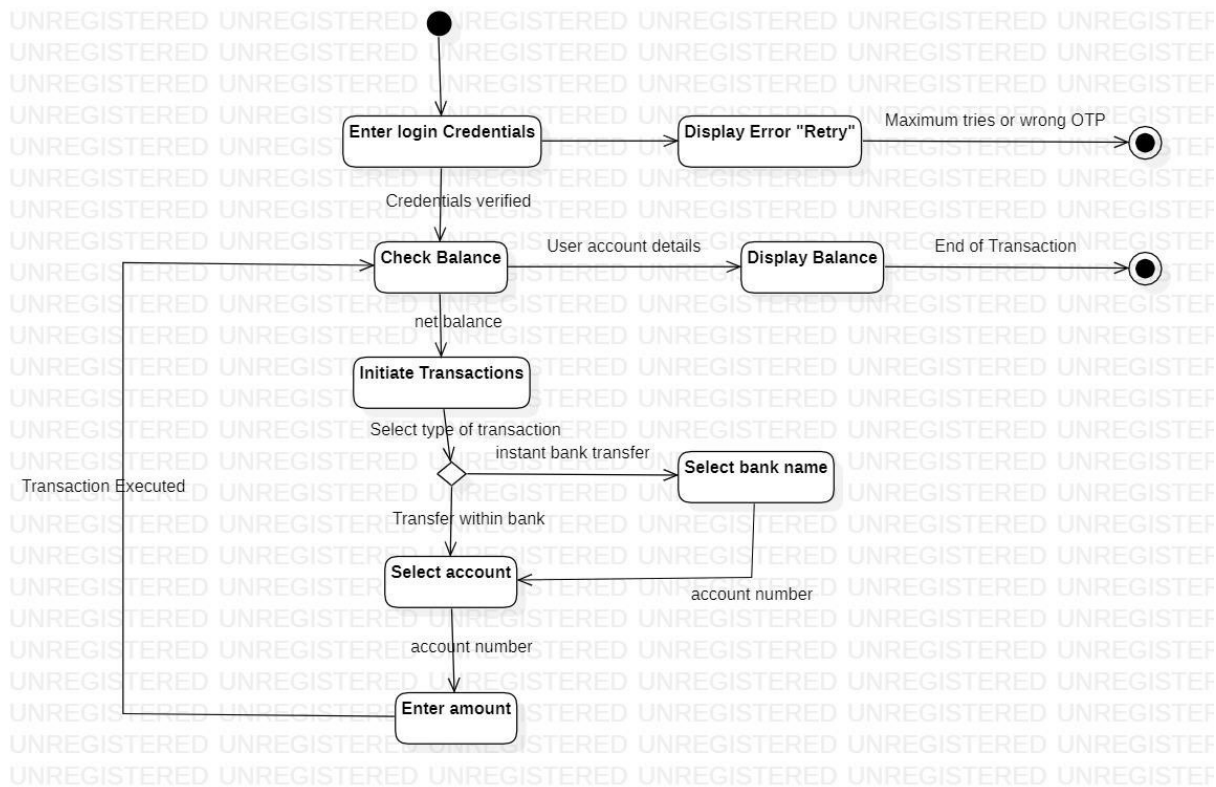
## 2. CLASS DIAGRAM



### 3. ACTIVITY DIAGRAM FOR PAY BILLS



## 4. ACTIVITY DIAGRAM FOR PAY BILLS



## III. Tools and Frameworks Used

Framework used is Java Swing. Swing is a GUI widget toolkit in java, built on top of AWT (Abstract Windowing Toolkit) API.

Java Swing uses MVC (Model View Controller) Architecture. It separates the business logic from view by introducing a controller.

Database used is MYSQL (Workbench). MySQL connection is set by the JDBC Driver. It is a software component that enables the Java application to interact with the database.

IDE used is Apache NetBeans, which gives an easy platform for building the GUI of the application.

## IV. Design Principles and Design Patterns Applied

Design Pattern used is Façade.

Façade is a pattern which hides the complexity of the system and provides an interface to the client using which the client can access the system.

Dashboard serves as the single point to all the different functionalities (order cheque book, add balance, instant payment transfer, pay bills) of the banking system.

## V. Application Screenshots (3-4 important pages)

The screenshot shows a web browser window with a 'REGISTER FORM'. The form is titled 'REGISTER FORM' in bold black text. In the top right corner, there is a red 'BACK' link. The form contains the following fields and values:

Field	Value
ID type	National Identity Card (NIC)
Selected ID number	ABC12345
Account Number	123123123
Email ID	swati@gmail.com
Registered Phone	9191919191
Date of Birth	01/01/1989
Username	swati
Password	swati123

At the bottom right of the form, there is a 'REGISTER' button.



Username

poo

Password

\*\*\*\*\*

forgot password?

LOGIN

Not a Member? Register Now!

LOGOUT


DASHBOARD

Account Balance

Instant Payment Transfer

Bill Payment

Order Cheque Book

— □ ×

[Back](#)

## ADD ACCOUNT BALANCE

Account Number

Enter Amount

SUBMIT

Show Balance

INR

10925





<BACK

## INSTANT PAYMENT

Select Bank

Union Bank Of India

Union Bank Of India ▼

Account Number/IBAN

987654321

Amount

1500

Purpose

Groceries

Payee Email

groceries@gmail.com

Payee Mobile

9191919191

Note

NA


PAY

Message



Amount has been transferred Successfully!

OK

 — □ ×

[<BACK>](#) **PAY BILLS** 25/04/2022 13:59:31


**Biller Name**


**PAY From**

**AMOUNT**

**You can pay any bill**  
MIN INR 01  
MAX INR 50,000  
**VIEW LIMITS**  
**VIEW ACCOUNT BALANCE**  
Your Account Balance is INR 9425

Message ×

 YourElectricity bill of amount 2000 has been paid.

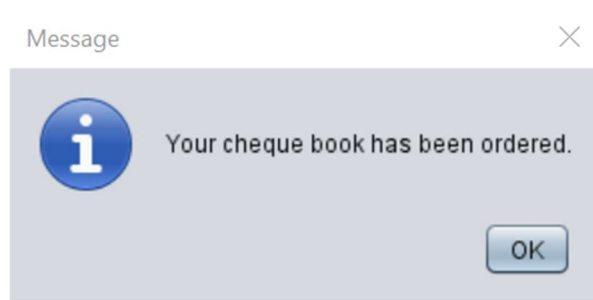
 — □ ×

BACK **ORDER CHEQUE BOOK**

Account Number123456789

Account Balance7425

Cheque Book Leaves



## **VI. Team member contributions**

### **1. Pallavi Prabhu PES2UG19CS274**

- + Transaction
- + Deposit
- + Instant Bank Transfer

### **2. Poorani R PES2UG19CS284**

- + Authentication
- + Pay Bills
- + Issue Cheque Book
- + Database

### **3. Preetha Narayanan PES2UG19CS294**

- + Registration
- + Login
- + View Balance
- + Check Balance