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COHORT : cse2-2

ASSIGNMENT TITLE : OO Banking System

DATE OF SUBMISSION : 19 September 2025

PROGRAMMER OF STUDY : COMPUTER SYSTEM ENGINEERING(cse)

YEAR OF STUDY : year 2

INTELLECTUAL PROPERTY STATEMENT

By checking the box below, I certify that this assignment is my work and is free from plagiarism. I understand that the assignment may be checked for plagiarism by electronic or other means and may be transferred and stored in a database for the purposes of data matching to help detect plagiarism. The assignment has not previously been submitted for assessment in any other unit or to other institution. **I have read and understood the Botswana college plagiarism guideline policy.**



Agree

SIGNATURE : *Karabo*

DATE: 19 September 2025

1. Requirement Elicitation

1.1 Functional requirement

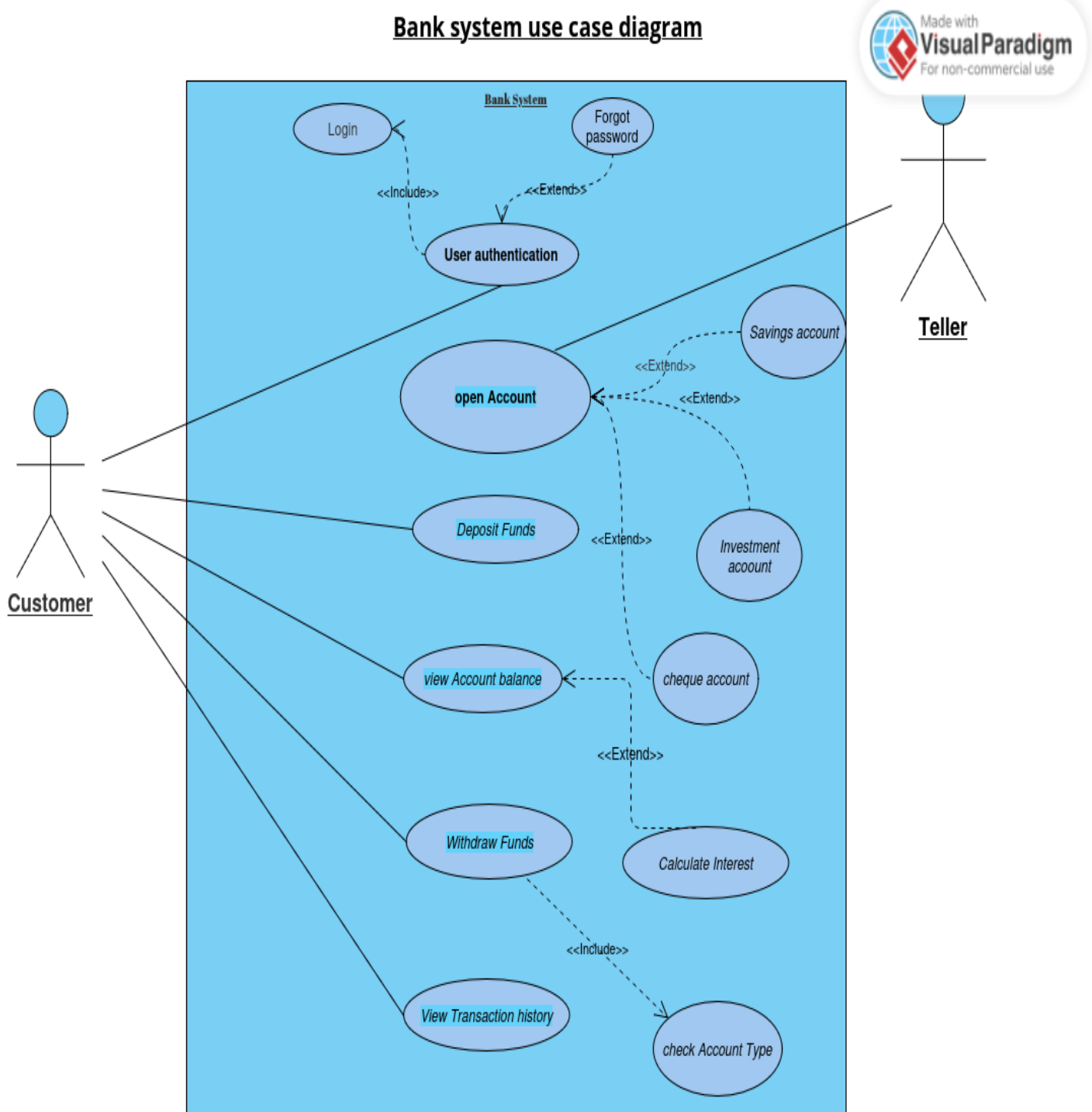
- ◆ Teller open accounts for Customer and provide account credentials
- ◆ Account management
- ◆ Transaction; DEPOSIT :ability to deposit funds into any account
WITHDRAWAL: only for investment & cheque
- ◆ Automatically apply monthly interest to savings and investment account based on interest rate and balance of each accounts
- ◆ System must maintain & display a history of deposit, withdrawals and interest payment for each account
- ◆ User authentication for Customers & Tellers,
- ◆ View balances per account.

1.2Non-Functional requirement

- ◆ Security
- ◆ usability
- ◆ maintainability
- ◆ Performance(transaction must process in under 5 seconds)

2 .Structural UML Modelling

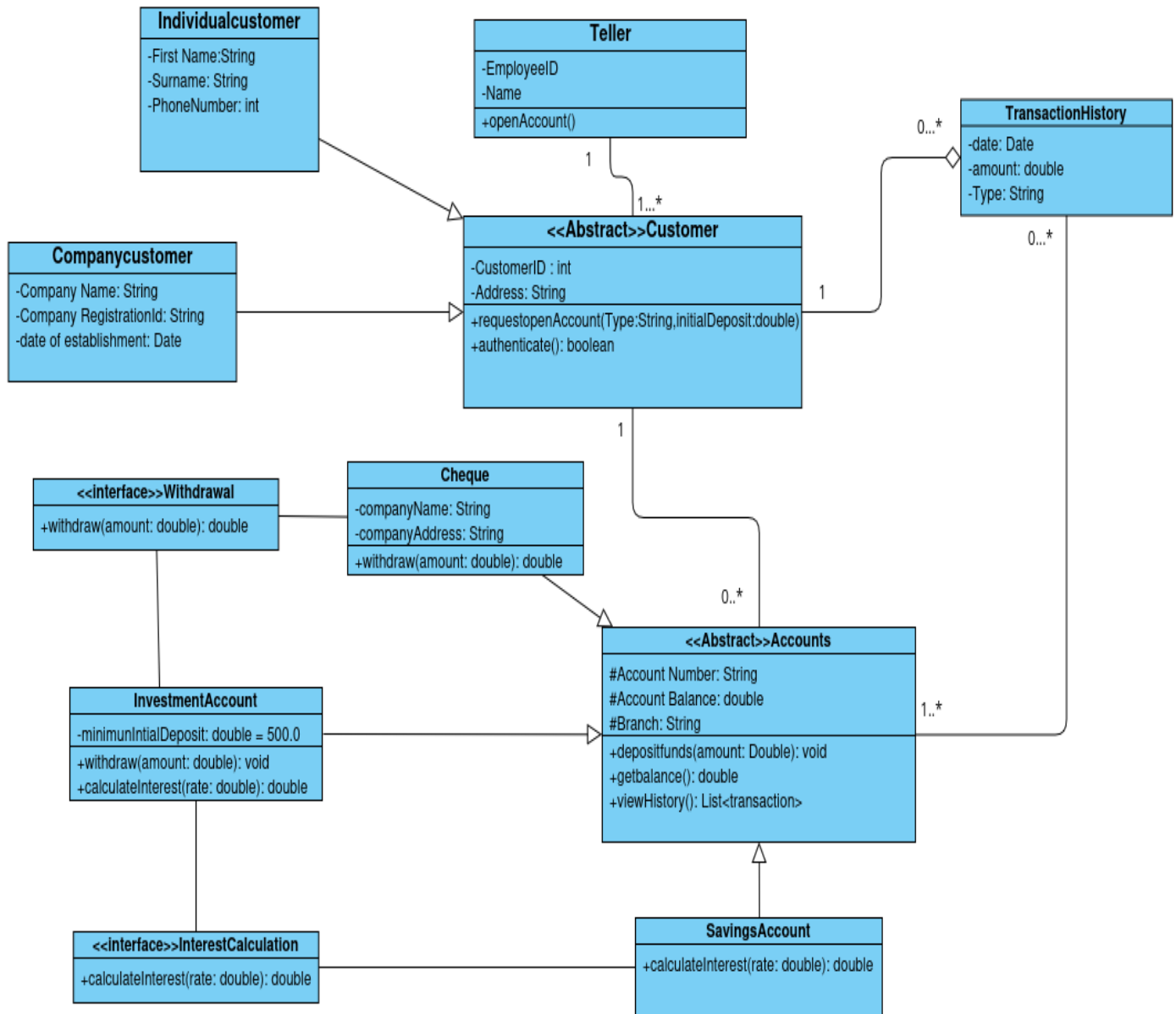
2.1 Use Cse Diagram



2.2 Class Diagram

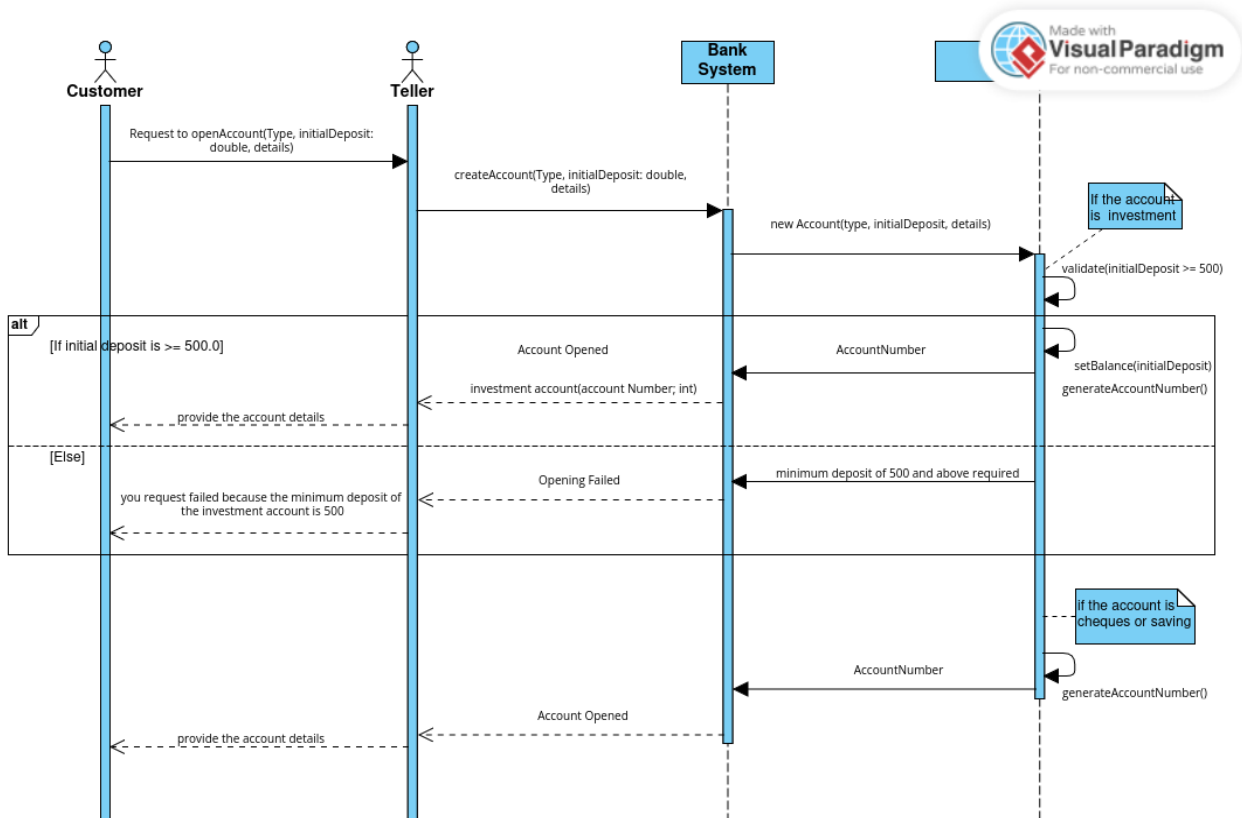


Bank system Class Diagram

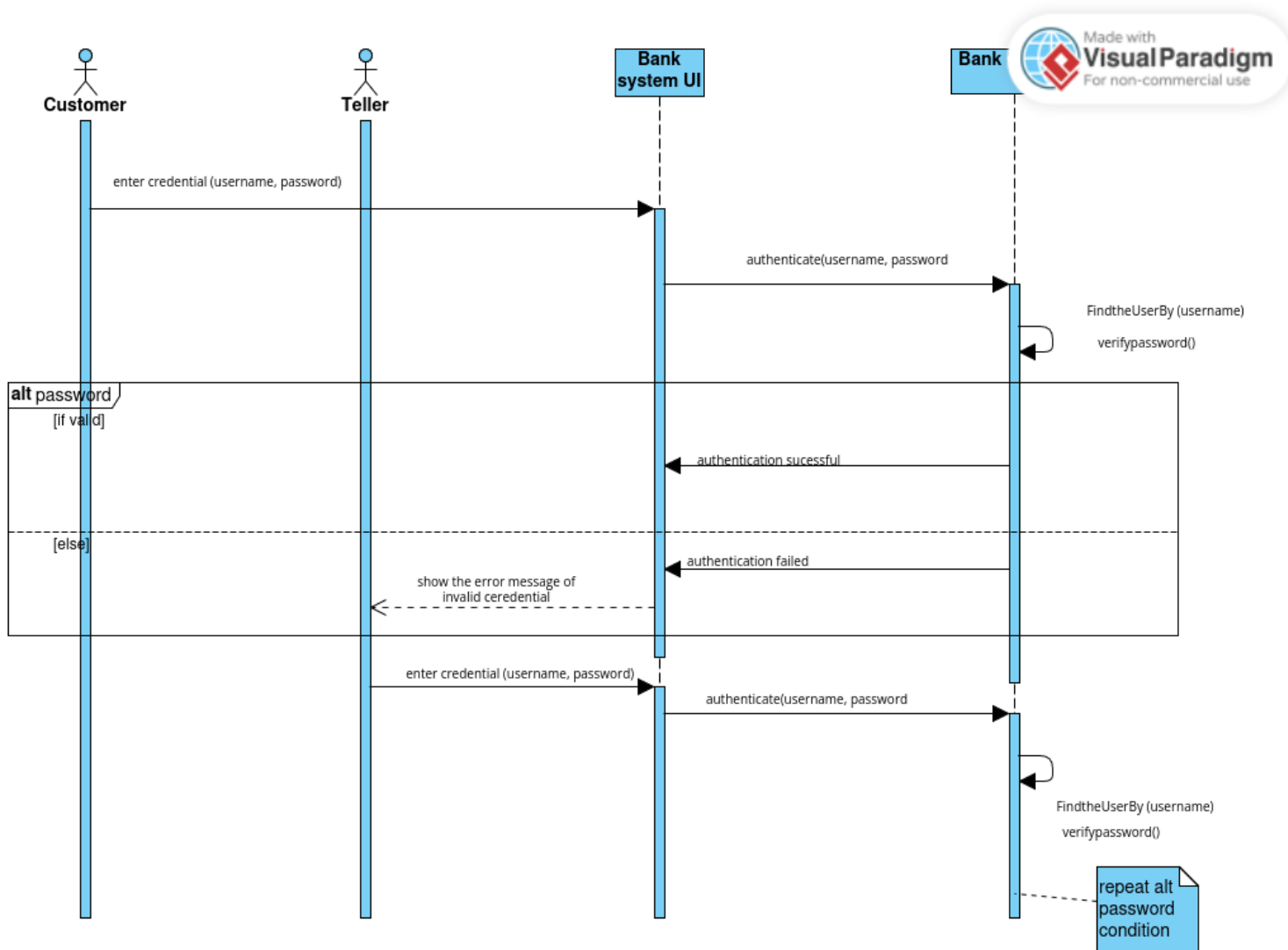


3. Behavioural UML Modelling

3.1 sequence diagrams



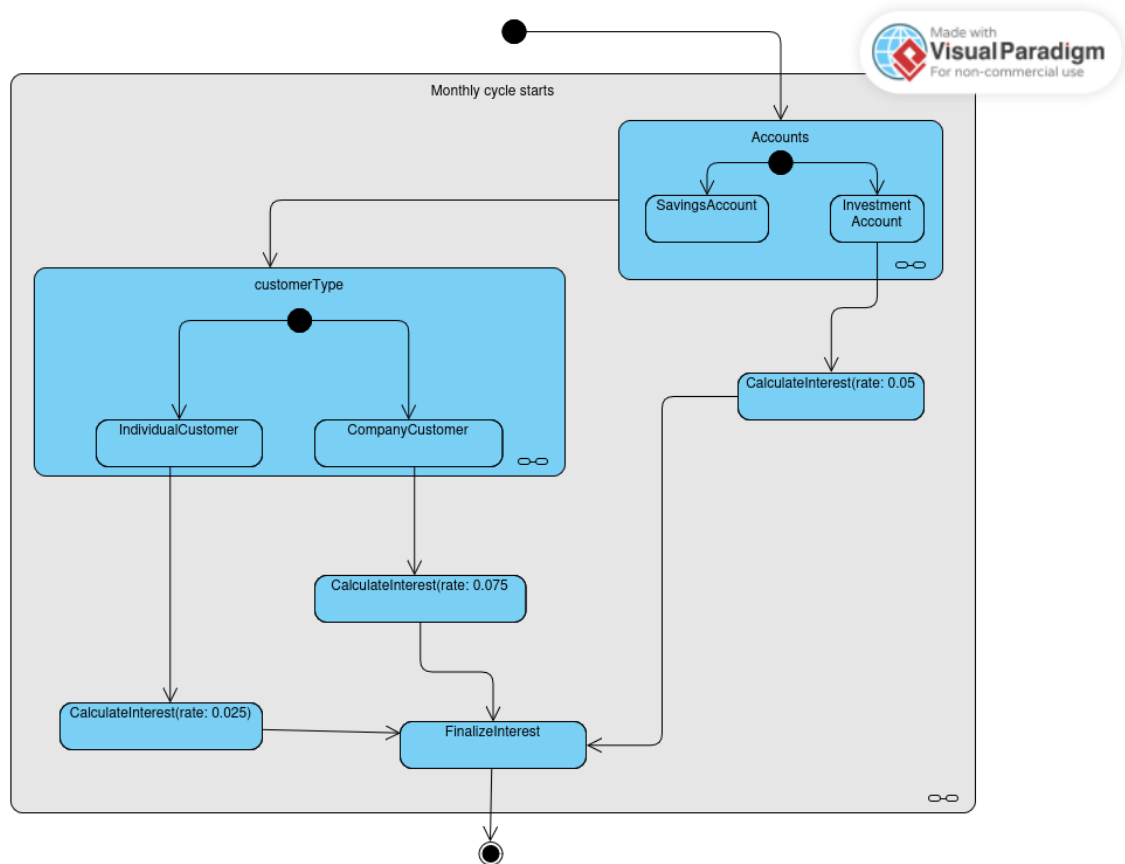
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Sequence Diagram: LOGIN

LOGIN/ USER AUTHETICATION

3.2. State Diagram



State Diagram: CalculateInterest

➤ Interview records appendix

- ◆ **Date:** 18/09/2025
- ◆ **Time:** 10:30–11:30
- ◆ **Interviewer:** Mr Johanson Karabo Sebudi
- ◆ **Interviewee:** Mr **Kentsenao Baseki**
- ◆ **Topic:** Requirements Engineering (Object Oriented Banking System)

Q&A

- Q: Any opening constraints?
A: Investment requires at least BWP 500 initial deposit; Cheque requires employment details (company name & address).
- Q: Interest policy?
A: Monthly: Investment **5%**, Savings **0.025% for** individuals and 0.075 for companys; Cheque none.
- Q: Can customers have multiple accounts?
A: Yes—one or more of any type.