

ASSIGNMENT SUBMISSION COVER SHEET

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Assignment title:	Introduction to Data Analytics
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Programme of Study:	Computer systems engineering
Year of Study:	2025
Intellectual property statement	

By checking the box below, I certify that this assignment is my own 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 any other institution. **I have read and understood the Botswana Accountancy College plagiarism guidelines policy.**

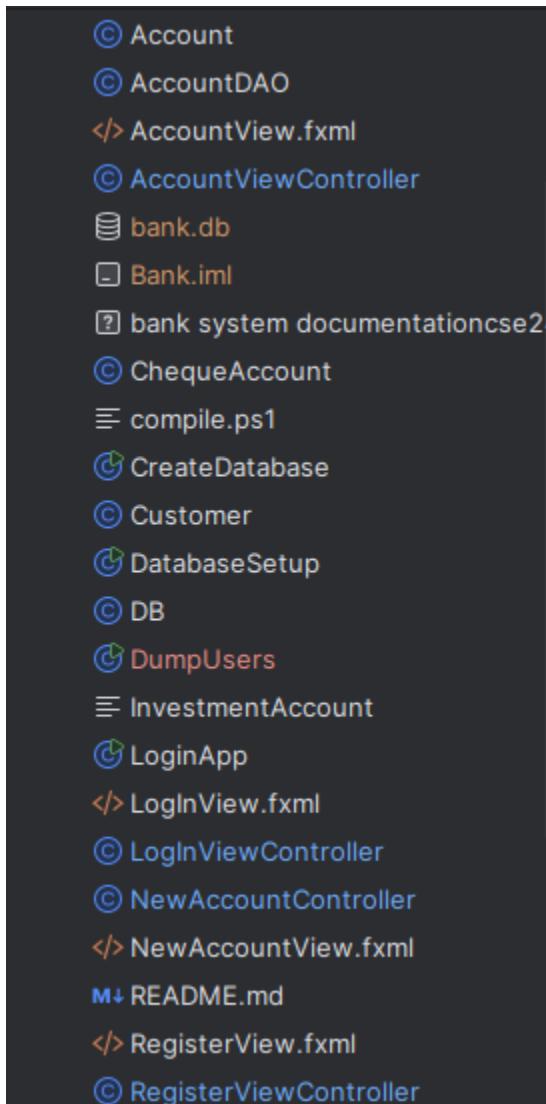
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Date.....11/15/2025.....

MODULE INTERGRATION AND TESTING

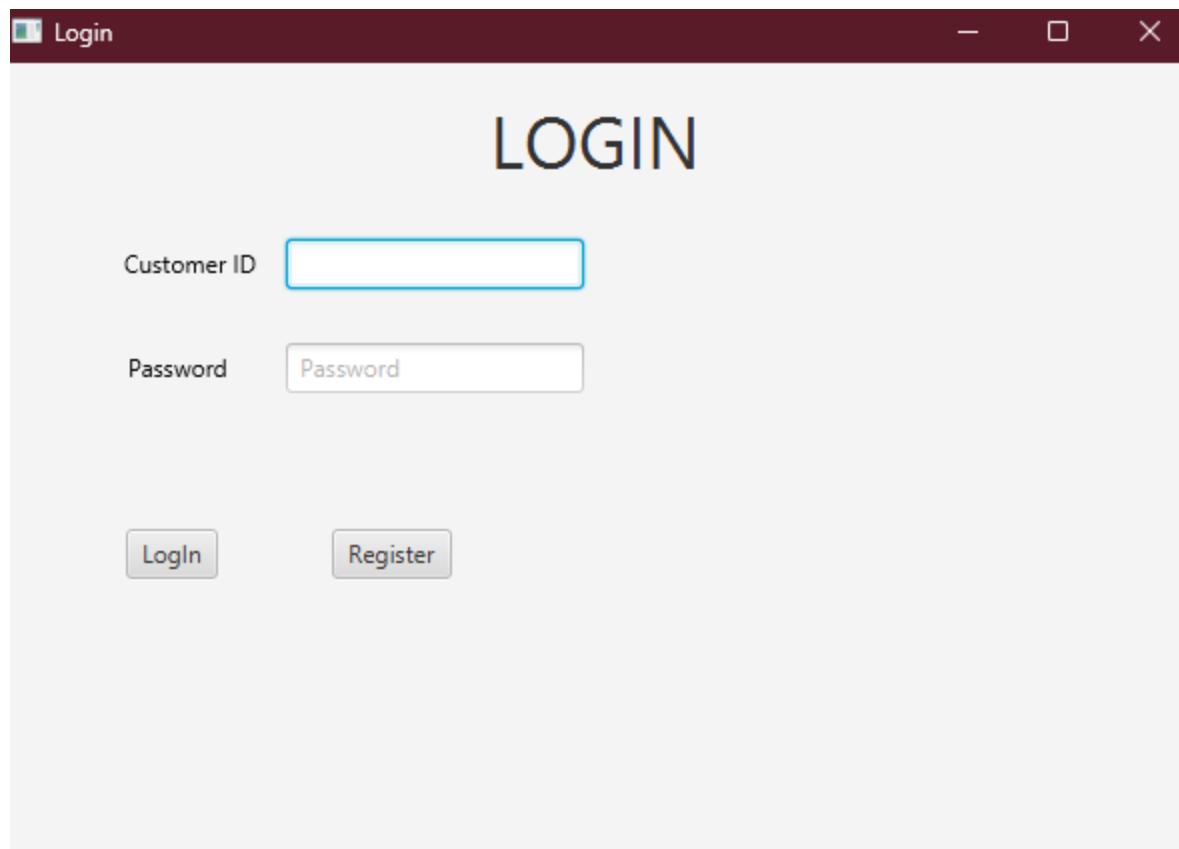
All the modules of the banking system were integrated into a working application. JavaFX GUI was connected to the controller classes responsible for handling user actions like logging in, withdrawing, depositing and checking balances and making new accounts.



The screenshot shows a file explorer window with a dark theme. The left pane displays a hierarchical list of files and folders:

- © Account
- © AccountDAO
- </> AccountView.fxml
- © AccountViewController
- bank.db
- Bank.iml
- bank system documentationcse24
- © ChequeAccount
- compile.ps1
- >CreateDatabase
- © Customer
- DatabaseSetup
- © DB
- DumpUsers
- InvestmentAccount
- LoginApp
- </> LogInView.fxml
- © LogInViewController
- © NewAccountController
- </> NewAccountView.fxml
- README.md
- </> RegisterView.fxml
- © RegisterViewController

After integration, the entire navigation from the GUI to the database and back was verified to be in working condition. The GUI successfully receives user input, the controllers process business logic and the DAO classes perform the required SQL updates. The system allows a user to login,



Viewing of account details

Your Accounts

Deposit

Withdraw

New Account

[Logout](#)

Perform deposit and withdraw

Deposit

Select Account:

CQ001 — CHEQUE — ...

CHEQUE

Current Balance: 9000.00

Submit Cancel

Withdraw

Select Account:

CQ001 — CHEQUE — ...

CHEQUE

Current Balance: 9000.00

Submit Cancel

Making new accounts and registering a new user

Create Account

Account Type: SAVINGS

Initial Balance: 811

Create Cancel

Register New User



Full Name

Password

Address

Phone

Initial Account Type

A registration form with fields for Full Name, Password, Address, Phone, and Initial Account Type. The Initial Account Type field is a dropdown menu. Below the form are two buttons: Register and Cancel.

All integration tests passed successfully. Communication of GUI and databases is functioning consistently as Intended . All banking operations are successful and accurate .