

## ASSIGNMENT SUBMISSION COVER SHEET

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<b>Cohort:</b>	2025
<b>Assignment title:</b>	OBJECT ORIENTED PROOGRAMMING WITH JAVA
<b>Date of submission:</b>	18 November 2025
<b>Programme of Study:</b>	Computer Systems Engineering
<b>Year of Study:</b>	Year 2

### 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.**

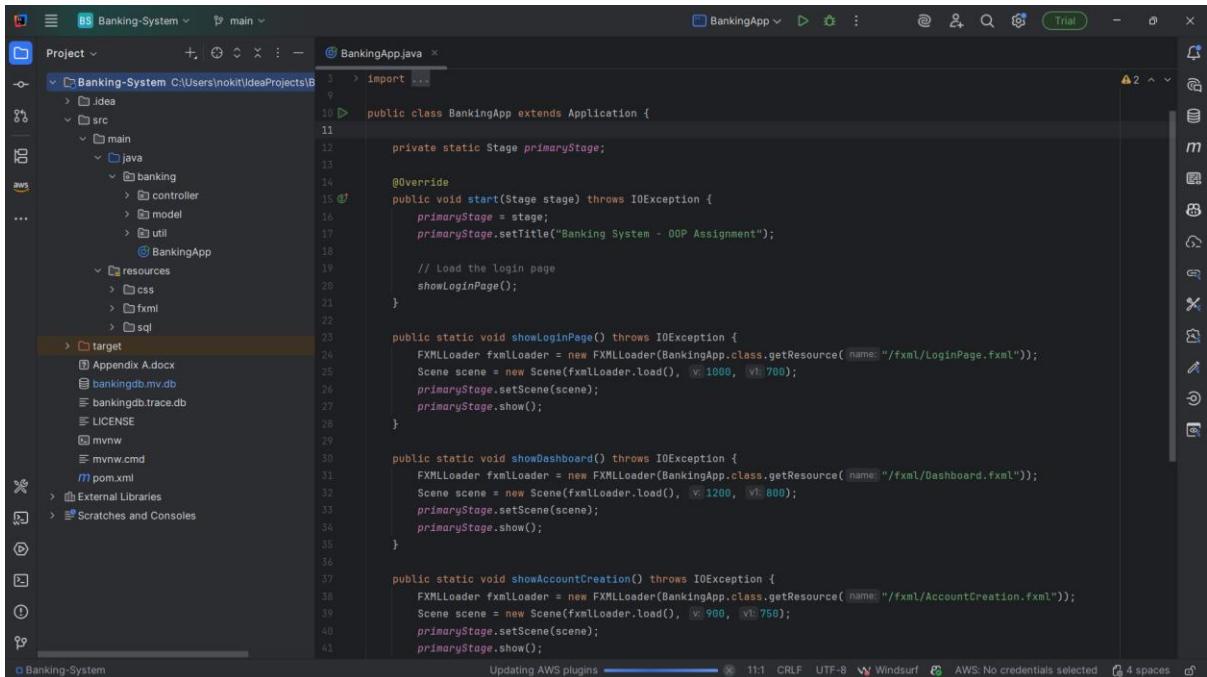
Agree

Signature.....P.kefhitilwe.....

## Report On JAVA ASSIGNMENT

Honestly id be lying if I said I struggled much at first but honestly the first initiation of my assignment was just doing the bare minimum and producing the basic requirements and where did that lead me classes ,fxml files and controllers which barely even worked but instead of despairing to the lack of everything coming together I had a talk with my Lecturer Mr Baseki and he reminded that in this module its more about giving us a sense of system development and giving us a proper fundamental understanding of the object oriented programming concepts to ensure we can adapt to any system we are given which led me to completely delete my structure entirely as I had just passively aimed to make a system.

of which in my assignment I used a previous local system for book managing as the gui was already working so all I had to do was remove the classes fix the gui to my taste on the gui and add controllers to meet my system entirely which gave me thus system

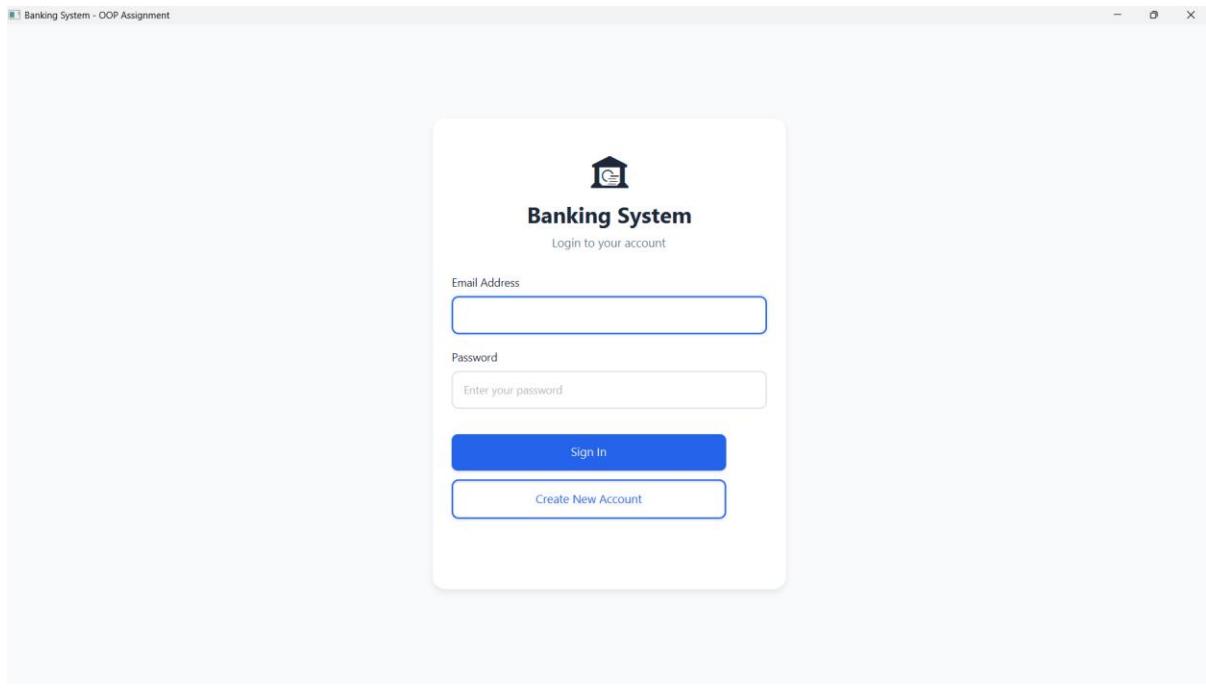


The screenshot shows the IntelliJ IDEA interface with the 'Banking-System' project open. The left sidebar displays the project structure, including the .idea folder, src directory with main and java sub-directories, resources, target, External Libraries, and Scratches and Consoles. The main editor window shows the BankingApp.java code:

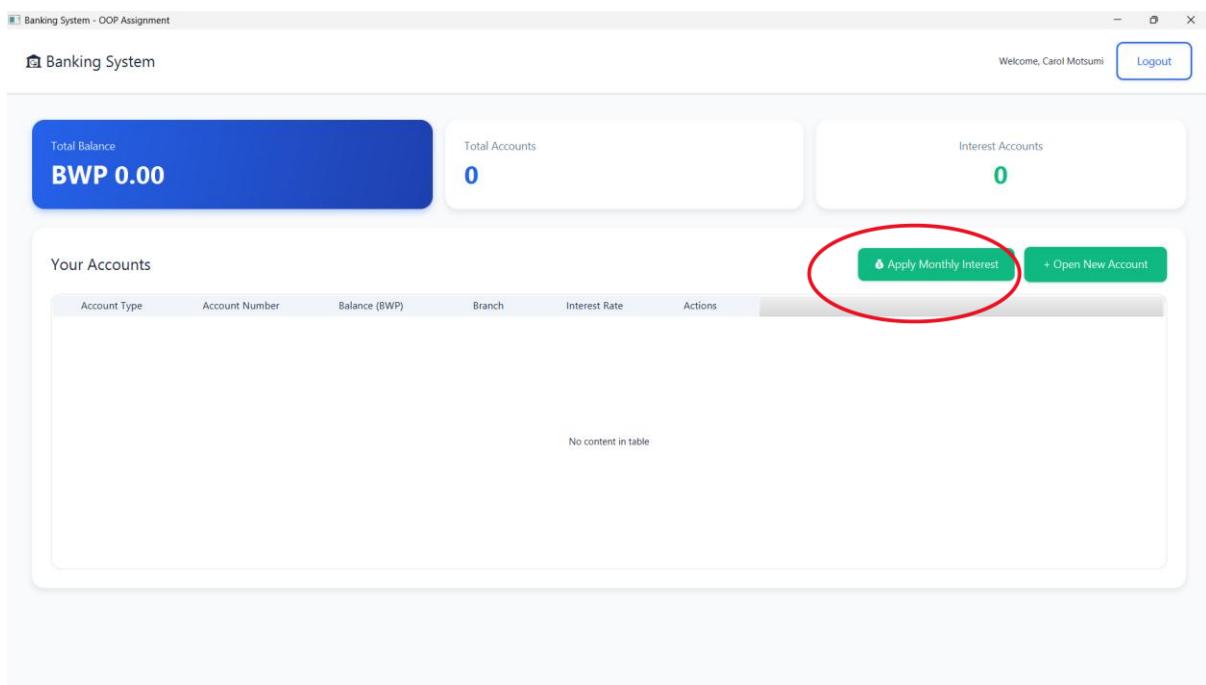
```
import ...  
public class BankingApp extends Application {  
    private static Stage primaryStage;  
    @Override  
    public void start(Stage stage) throws IOException {  
        primaryStage = stage;  
        primaryStage.setTitle("Banking System - OOP Assignment");  
  
        // Load the Login page  
        showLoginPage();  
    }  
  
    public static void showLoginPage() throws IOException {  
        FXMLLoader fxmlLoader = new FXMLLoader(BankingApp.class.getResource("name: /fxml/LoginPage.fxml"));  
        Scene scene = new Scene(fxmlLoader.load(), 1000, 700);  
        primaryStage.setScene(scene);  
        primaryStage.show();  
    }  
  
    public static void showDashboard() throws IOException {  
        FXMLLoader fxmlLoader = new FXMLLoader(BankingApp.class.getResource("name: /fxml/Dashboard.fxml"));  
        Scene scene = new Scene(fxmlLoader.load(), 1200, 800);  
        primaryStage.setScene(scene);  
        primaryStage.show();  
    }  
  
    public static void showAccountCreation() throws IOException {  
        FXMLLoader fxmlLoader = new FXMLLoader(BankingApp.class.getResource("name: /fxml/AccountCreation.fxml"));  
        Scene scene = new Scene(fxmlLoader.load(), 900, 750);  
        primaryStage.setScene(scene);  
        primaryStage.show();  
    }  
}
```

The status bar at the bottom indicates "Updating AWS plugins" and shows file statistics: 11:1 CRLF, UTF-8, Windsurf, 4 spaces.

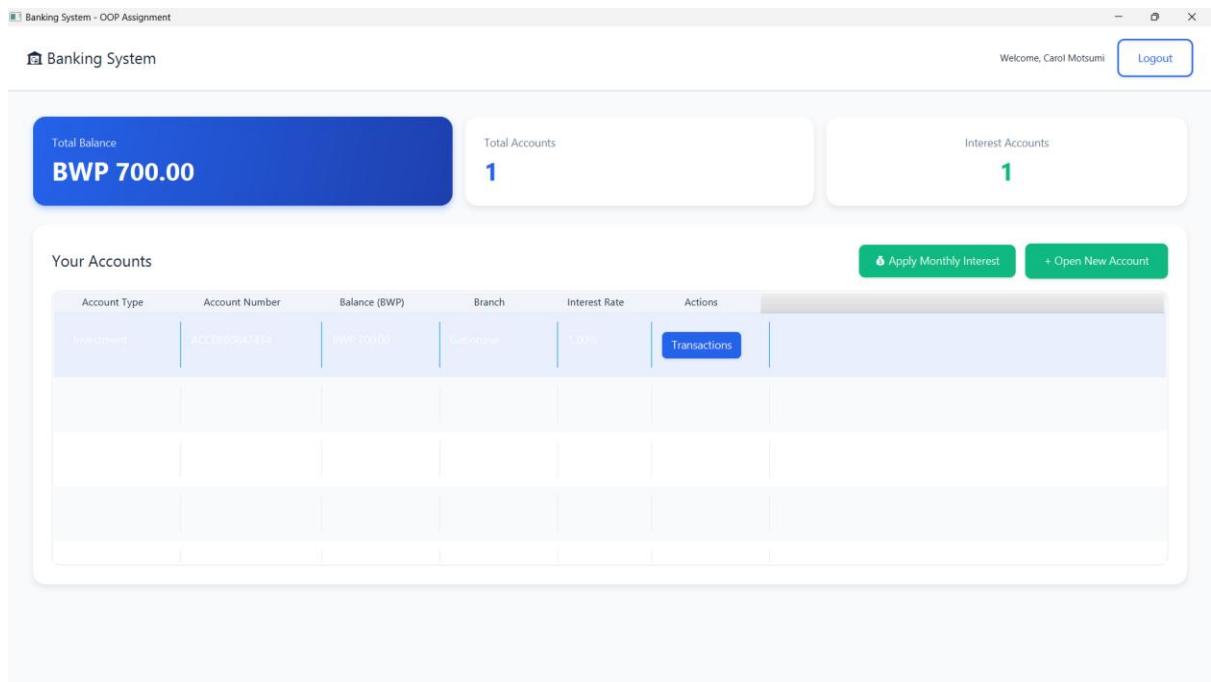
this is what my gui looks like after combining my past project css with my current system



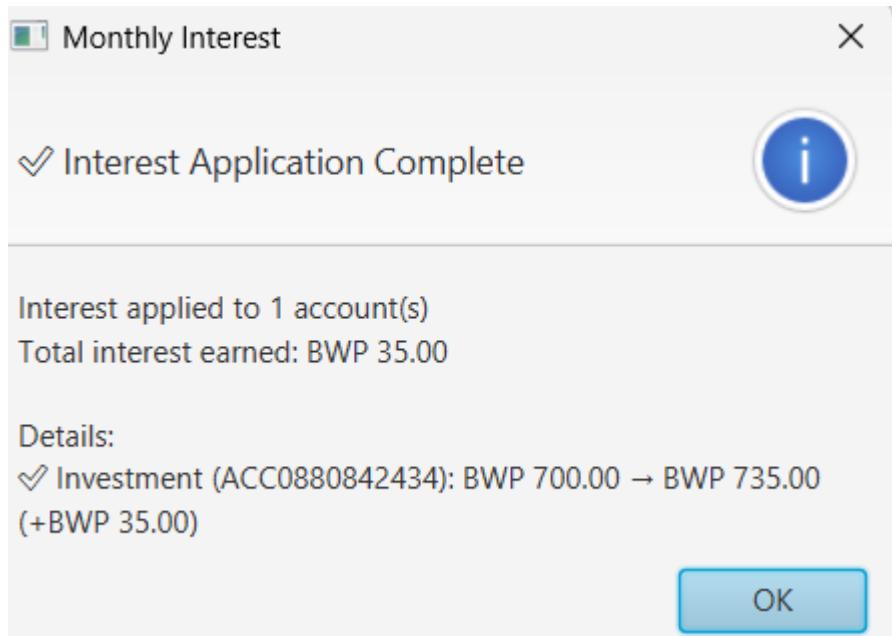
the only challenges I could say I had was getting interest to apply once in a month so I added the button to dashboard



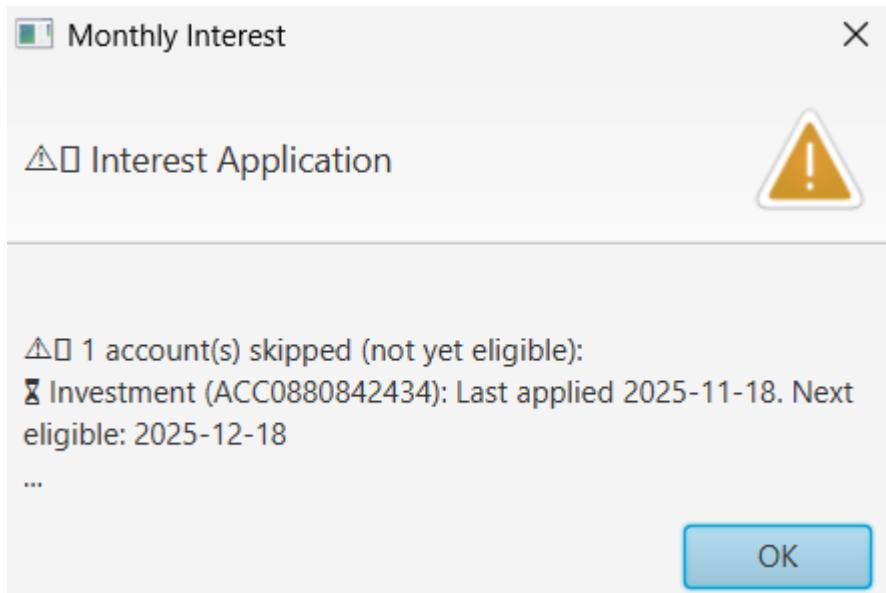
this had its own controller made and a few changes made to code in terms of date format to allow registry of apply interest for any eligible account to happen once in a month after clicking apply monthly interest and although it doesn't allow interest to be applied until the date is a month after the applied interest recorded date.



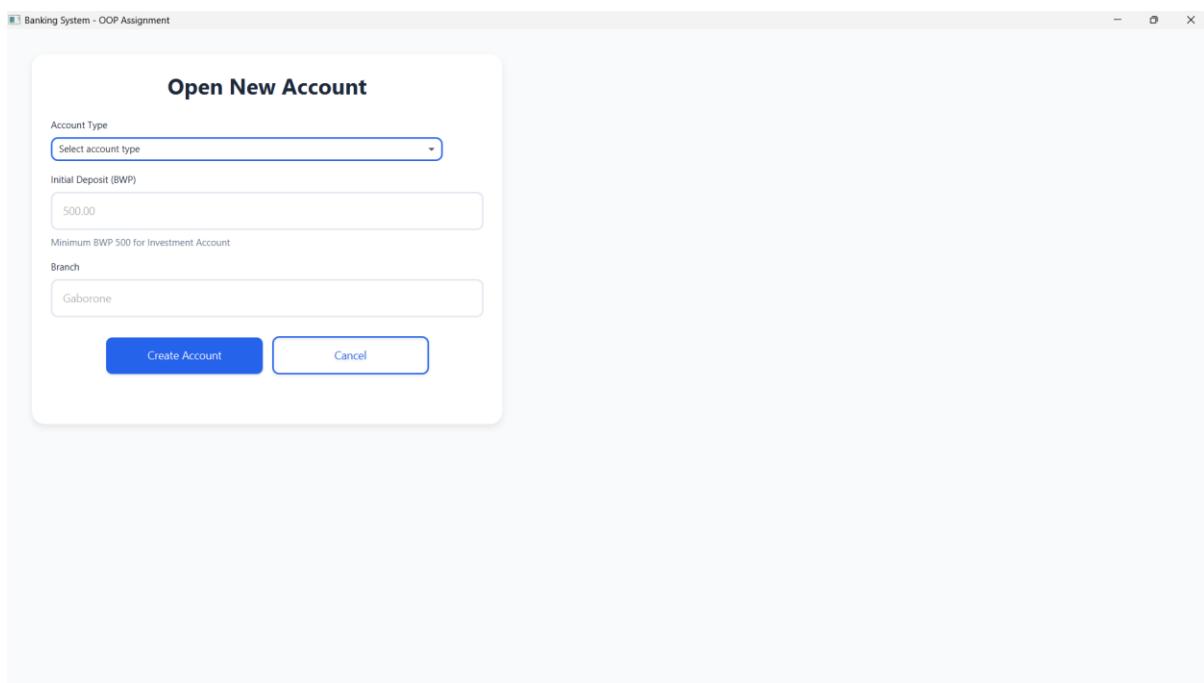
Created account so I can apply interest



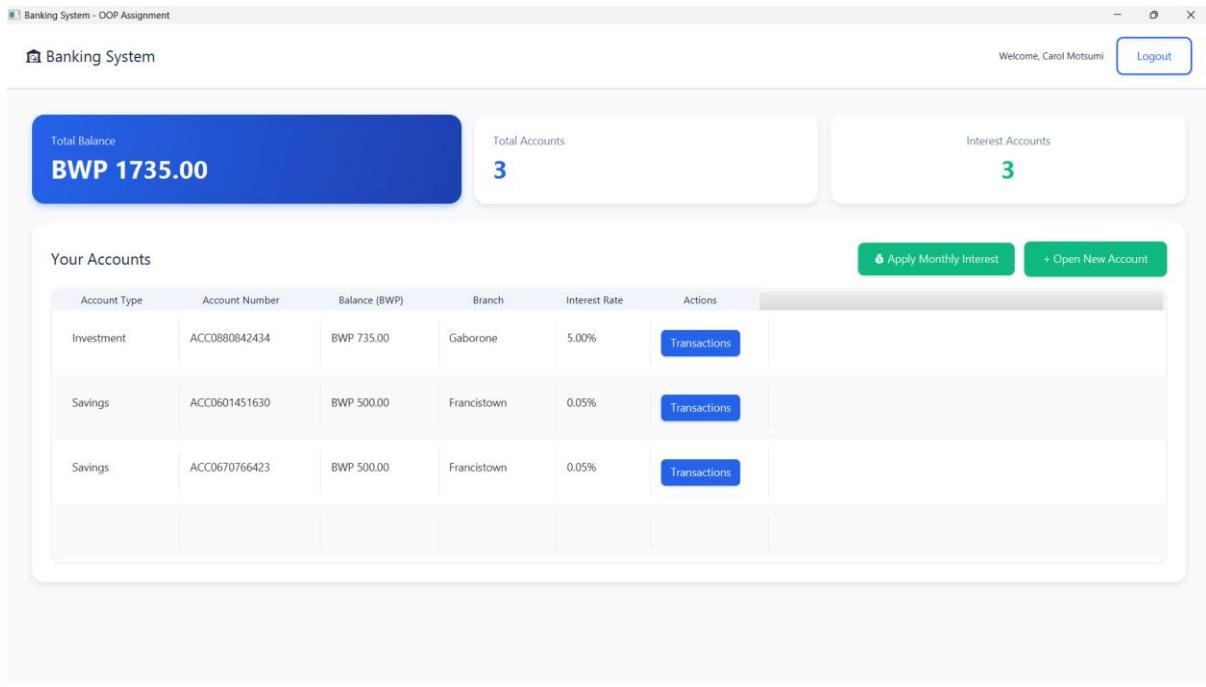
When clicked as a pop up window



This happens when user tries to abuse or apply interest even when month is not over.



creation works I clicked twice and got



which shows that you can add and deposit

The screenshot shows the 'Manage Transactions' page. It includes fields for 'From Account' (set to 'Investment - ACC0880842434'), 'Transaction Type' (dropdown), 'Amount (BWP)' (set to '100.00'), and buttons for 'Execute Transaction' and 'Back to Dashboard'. To the right, a blue box displays the 'Current Balance BWP 0.00' and a placeholder 'Select an account'. Below this is a 'Recent Transactions' table with columns: Date, Type, Amount, Balance After, and Description. The table body contains the message 'No content in table'.

since deposit was shown I'll show transfer and withdraw

### Transaction Type

- Deposit
- Withdraw
- Transfer

withdraw

## Manage Transactions

From Account

Investment - ACC0880842434

Transaction Type

Withdraw

Amount (BWP)

600

[Execute Transaction](#)

[Back to Dashboard](#)

Current Balance

**BWP 0.00**

Select an account

### Recent Transactions

Date	Type	Amount	Balance After	Description	
No content in table					

result

Banking System - OOP Assignment

## Manage Transactions

From Account

Investment - ACC0880842434

Transaction Type

Withdraw

Amount (BWP)

100.00

**Execute Transaction**    **Back to Dashboard**

✓ Successfully withdrew BWP 600.00

Recent Transactions

Date	Type	Amount	Balance After	Description
2025-11-18 21:13	WITHDRAWAL	BWP 600.00	BWP 135.00	Withdrawal
2025-11-18 21:06	INTEREST	BWP 35.00	BWP 735.00	Monthly interest applied

Current Balance

**BWP 135.00**

Investment Account  
ACC0880842434  
Branch: Gaborone

transfer

## Manage Transactions

From Account

Investment - ACC0880842434

Transaction Type

Transfer

Transfer To Account

Amount (BWP)

100.00

**Execute Transaction**

**Back to Dashboard**

Error loading target accounts: Investment account requires minimum ...

Recent Transactions

Date	Type	Amount	Balance After	Description
2025-11-18 21:13	WITHDRAWAL	BWP 600.00	BWP 135.00	Withdrawal

And it works best as the account cant function unless its over P500 guess that became an error so im gonna update transaction controller and investment account

Banking System - OOP Assignment

## Manage Transactions

From Account: Investment - ACC0415341413

Transaction Type: Transfer

Transfer To Account: Savings - ACC0961908868

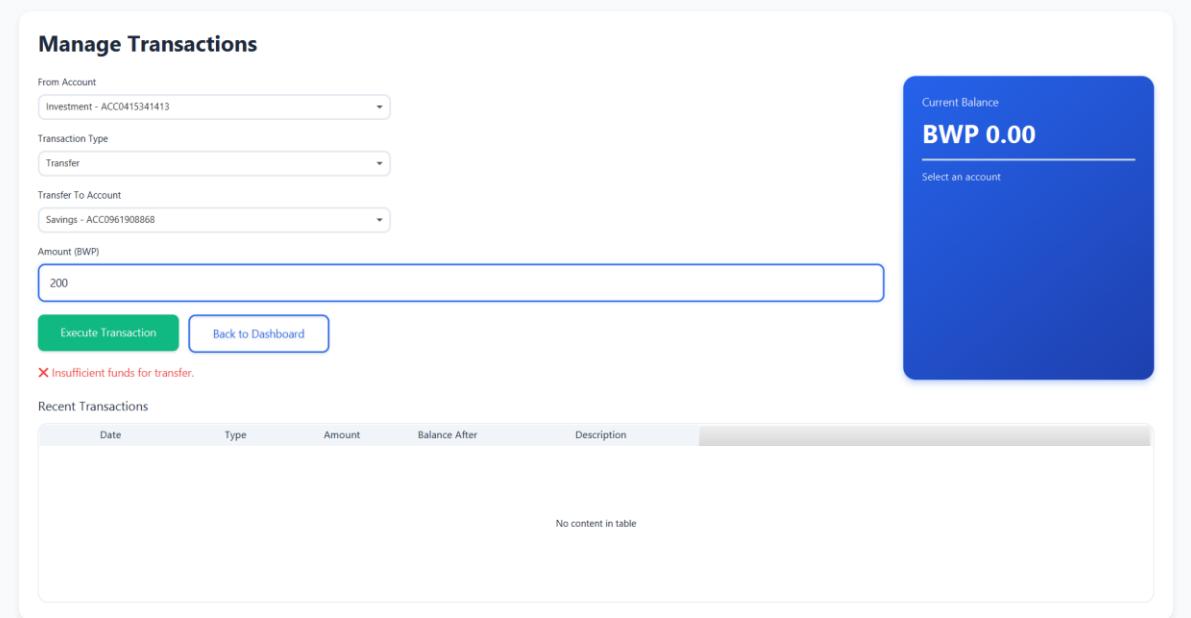
Amount (BWP): 200

✖ Insufficient funds for transfer.

Recent Transactions:

Date	Type	Amount	Balance After	Description
No content in table				

Current Balance: **BWP 0.00**  
Select an account



## account amounts

Banking System - OOP Assignment

## Manage Transactions

From Account: Investment - ACC0415341413 (BWP 945.00)

Transfer To Account: Savings - ACC0961908868 (BWP 50.00)

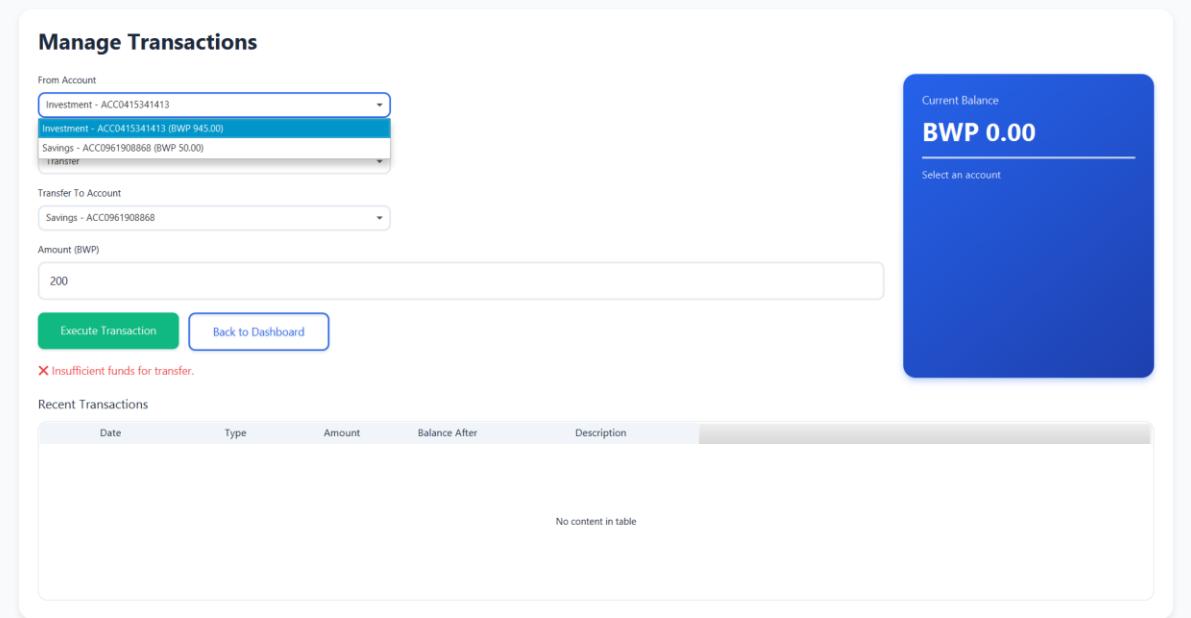
Amount (BWP): 200

✖ Insufficient funds for transfer.

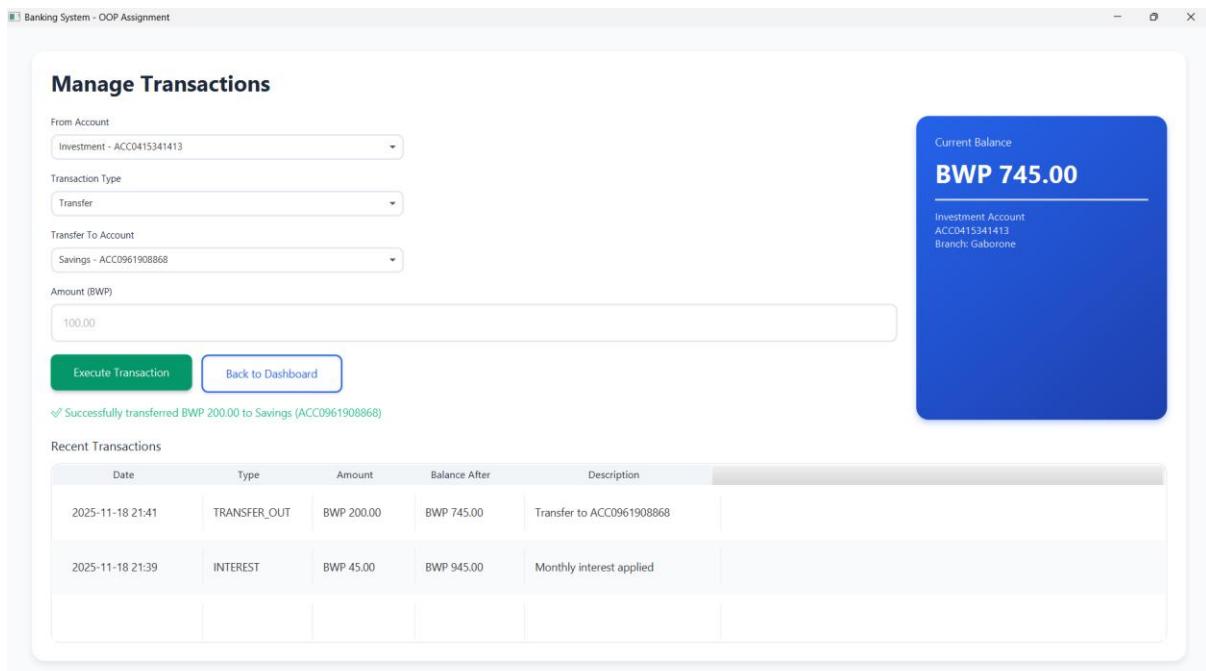
Recent Transactions:

Date	Type	Amount	Balance After	Description
No content in table				

Current Balance: **BWP 0.00**  
Select an account



so now issue is solved



creation at the end

# Create Account

Join our banking system today

Full Name

John Doe

ID Number

BW123456

Email Address

john.doe@example.com

Phone Number

72123456

[Create Account](#)

[Back to Login](#)

user would be exampleuser

email [password@gmail.com](mailto:password@gmail.com)

password 12345678

got created so lets login



# Banking System

Login to your account

Email Address

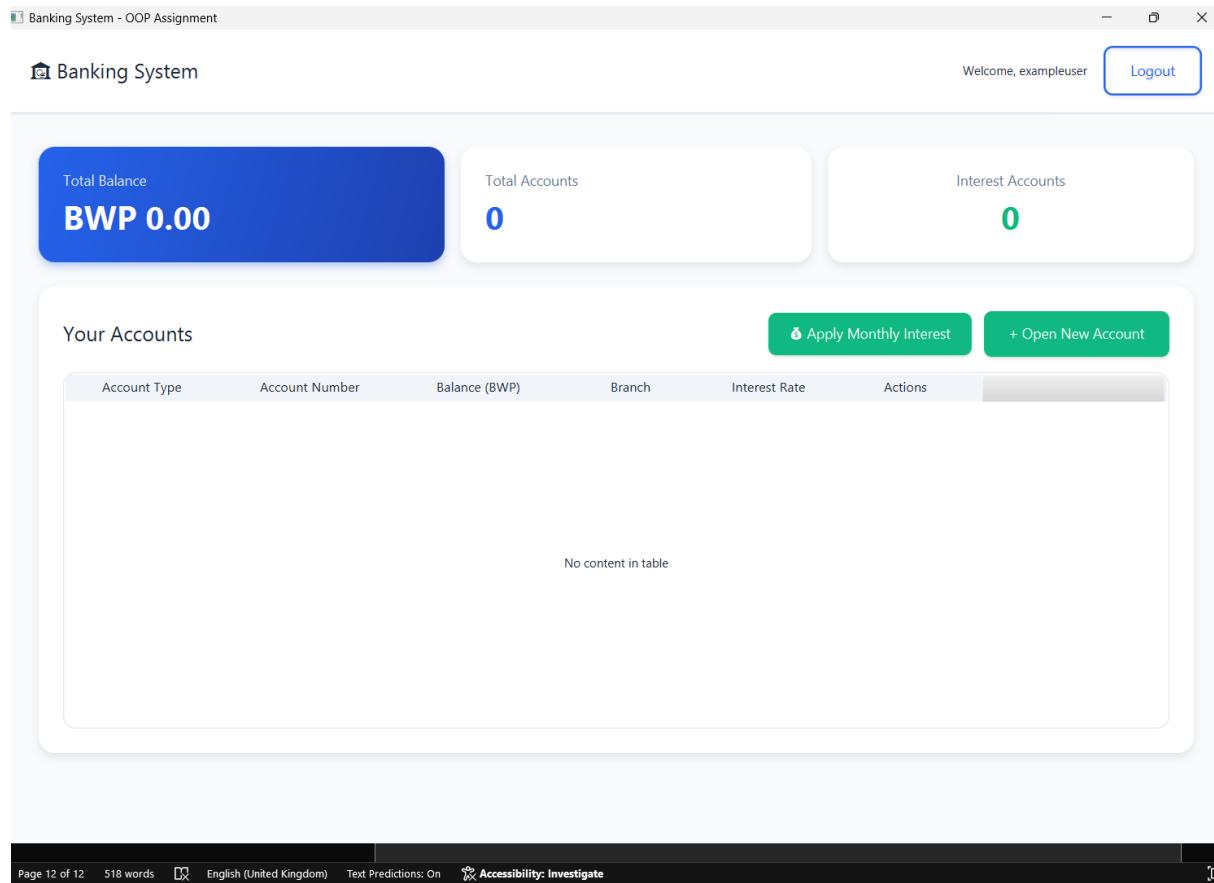
password@gmail.com

Password

••••••••

Sign In

[Create New Account](#)



System fully works at least to meet any functions set and works seamlessly

This is the result f my project and what I could achieve