



*EVOLVE BANK*  
*WE BELONG TO YOU*

The **GAP** group members and founders:

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- **Aobakwe Bogatsu**
- **Pfufho Ratshivhombela**

The **GAP** group chose the banking system as part of the PGM216D project, because it is a real-life, day-to-day system that is easily accessible to people around the world. The banking system is highly dynamic and capable of responding to most possible requests and summaries as possible.

Before starting with the project, we followed the following steps:

### **1. Identifying the requirements of the banking system.**

We defined the functionality and the features of the banking system. The system should be able to perform tasks such as account creation, deposits, withdrawals, transfer of funds, and the balance enquiries.

### **2. Designing the user interface**

Creating a user-friendly interface that allows to perform tasks with ease. The interface should display the necessary information such as account balances, transaction history, account details.

### **3. Planning the system architecture**

We decide on the architecture of the banking system. We used object-orientated programming (OOP) principles to design the system architecture.

### **4. Implementing the code**

We started writing the code for the banking system using Embarcadero C++ to implement the functionality of the system.

### **5. Testing the system**

We as the **GAP** group tested the banking system to ensure that it works as expected. This included covering scenarios such as error handling and data validation.

## Main Tab



The Main page is as shown in the image above, and in blue, are the 'Sign in' and 'Register' labels.

The 'sign in' is suitable for the user who already has an account with EVOLVE BANK and clicking the 'sign in' means that you have an account with EVOLVE BANK.

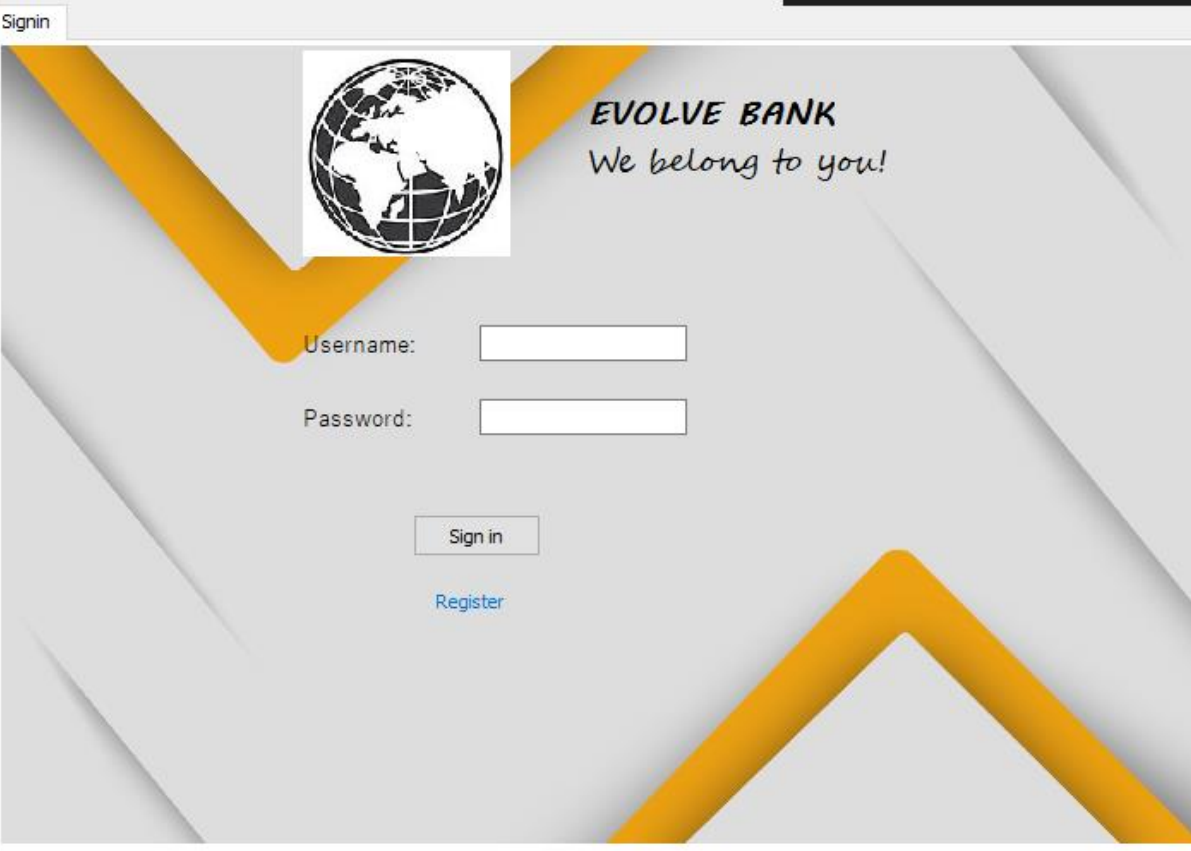


The 'Register' is suitable for first-time users willing to create an account with EVOLVE BANK. Clicking on the 'register' means you are willing to register/open an account with EVOLVE BANK.



## Sign In

Clicking the 'sign in' means that you have an account with EVOLVE BANK.



The image shows a web browser window with a tab labeled "Signin". The page has a grey background with large, stylized yellow chevrons. In the top left, there is a globe icon. To its right, the text "EVOLVE BANK" is written in a bold, sans-serif font, followed by the tagline "We belong to you!" in a script font. Below this, there are two input fields: "Username:" and "Password:". Below the password field is a "Sign in" button. At the bottom, there is a blue link labeled "Register".

The username will be represented by your unique account number, and the password is the password you created when registering with EVOLVE BANK.

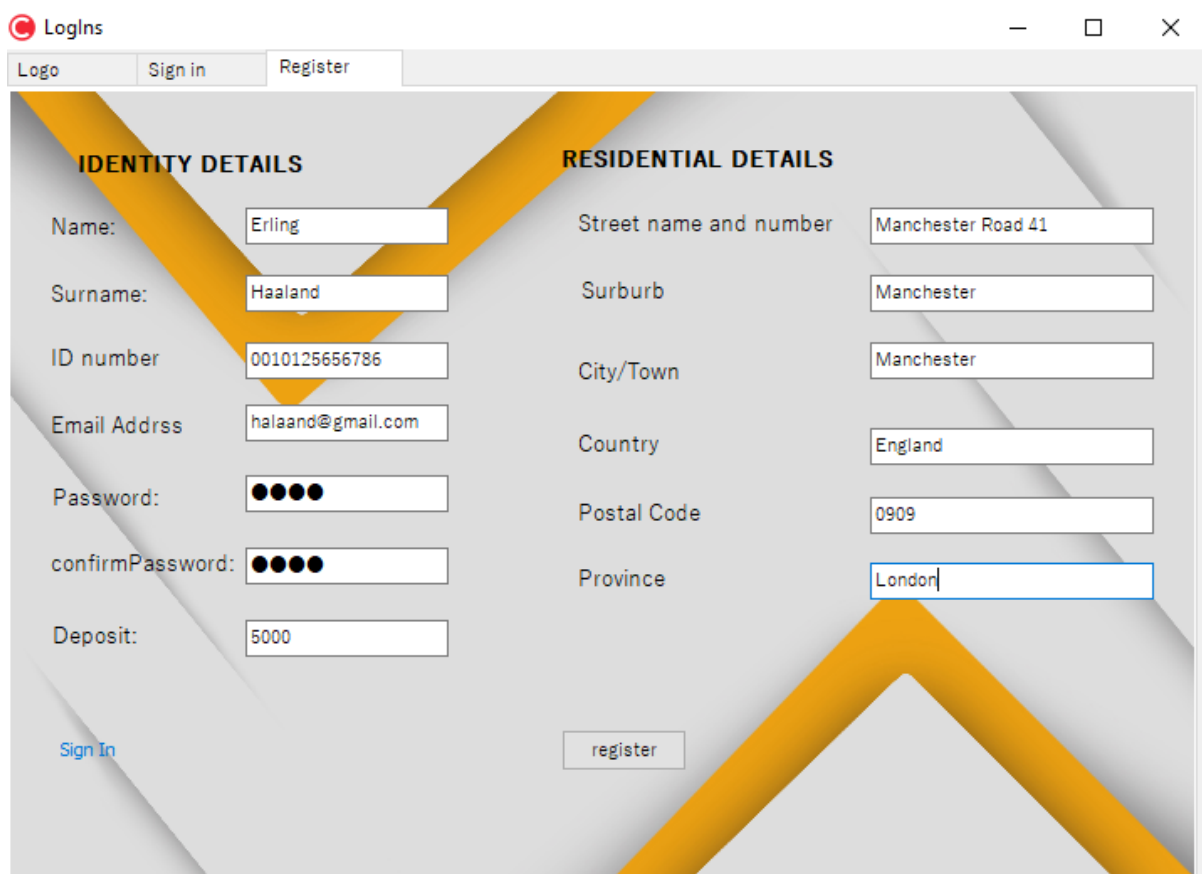
After successfully signing in a home tab will appear with a welcoming sign on it aligned at the top centre of the tab or page.



The image shows a grey rectangular box with a yellow chevron on the right side. Inside the box, the word "Welcome" is written in a large, bold, sans-serif font, and the name "Erling" is written below it in a smaller, bold, sans-serif font.

## Register

Clicking on the 'register' means you are willing to register/open an account with EVOLVE BANK.



The screenshot shows a web browser window titled "Logins" with three tabs: "Logo", "Sign in", and "Register". The "Register" tab is active. The form is divided into two main sections: "IDENTITY DETAILS" and "RESIDENTIAL DETAILS".

**IDENTITY DETAILS**

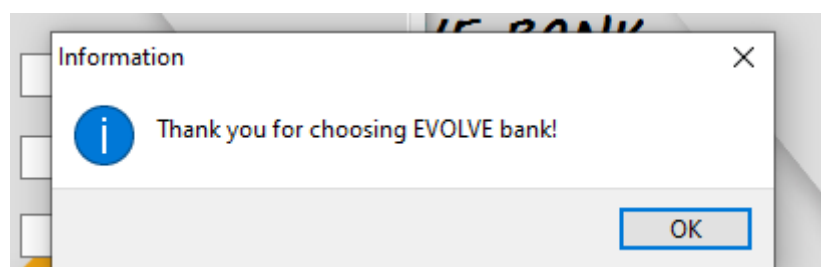
- Name: Erling
- Surname: Haaland
- ID number: 0010125656786
- Email Address: halaand@gmail.com
- Password: (masked with dots)
- confirmPassword: (masked with dots)
- Deposit: 5000

**RESIDENTIAL DETAILS**

- Street name and number: Manchester Road 41
- Surburb: Manchester
- City/Town: Manchester
- Country: England
- Postal Code: 0909
- Province: London

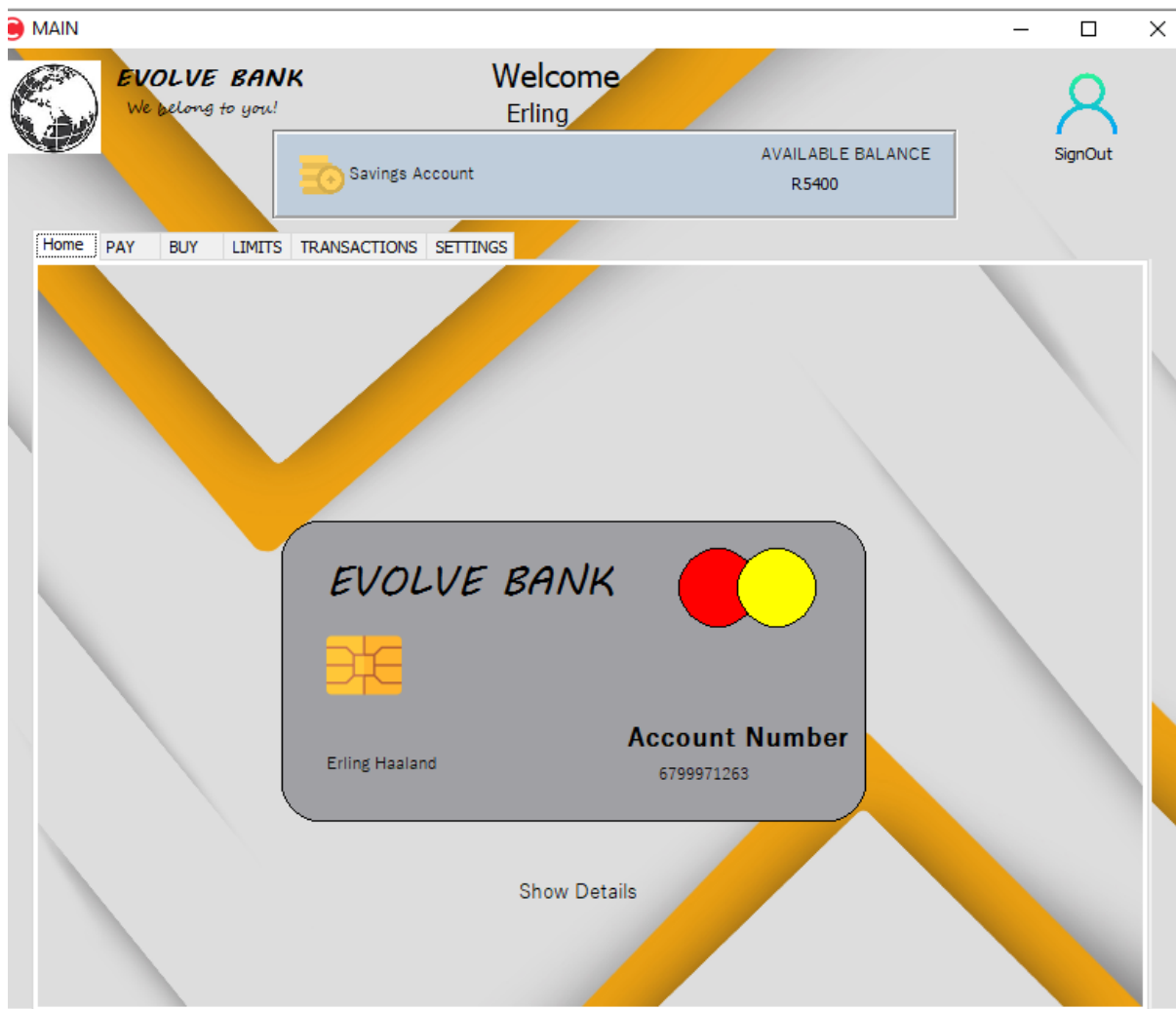
At the bottom left, there is a "Sign In" link. At the bottom center, there is a "register" button.

After successfully registering, a message appears on the screen to confirm your registration and you will now have an EVOLVE account, unique account number and password. This then allows the user to sign in instead of registering, the next time he/she wants to use the app.



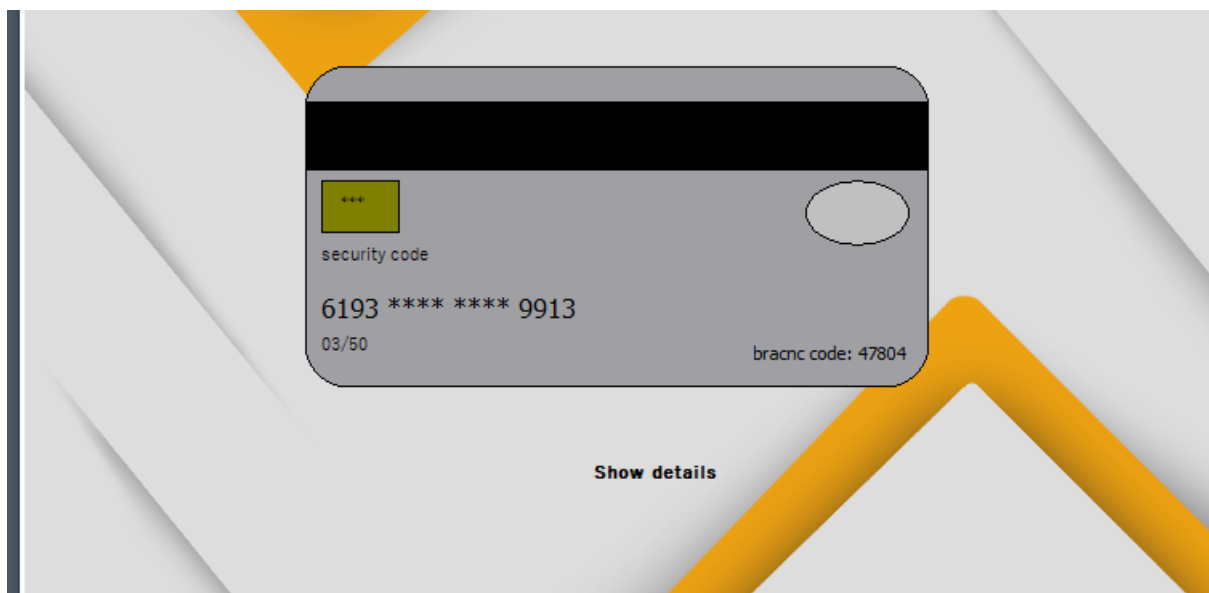
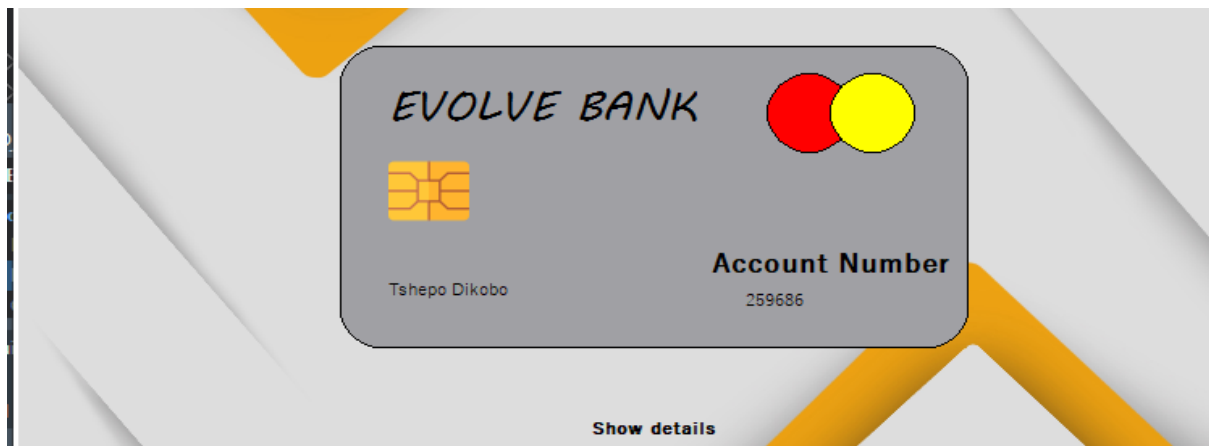
## Home Tab

After signing in or registering the home page will then appear as follows:



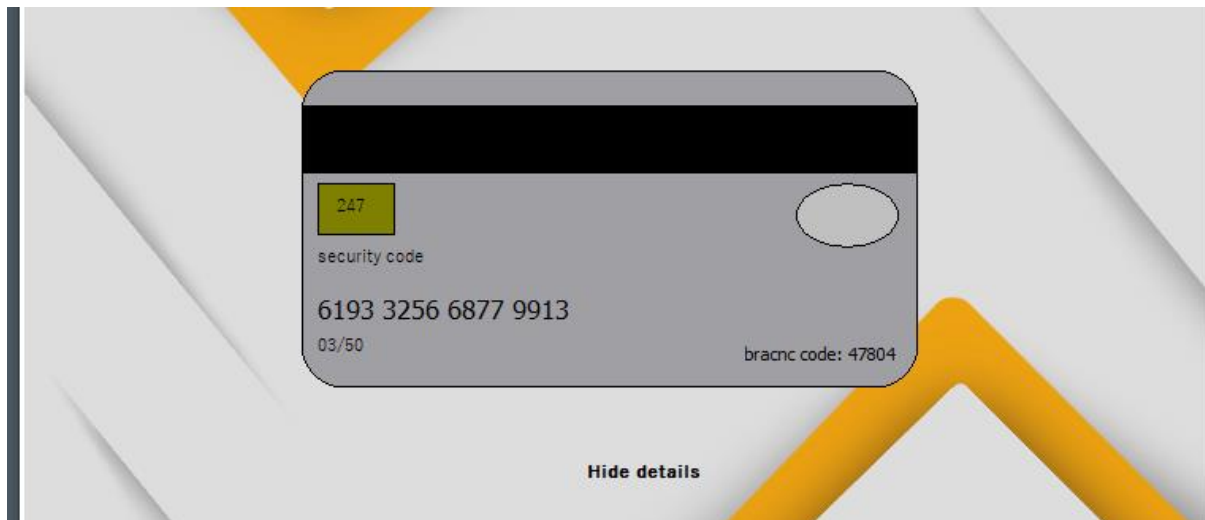
The card will have features such as: card number, security code, account number, name of account, and name of the user.

Right clicking the card that appears on the home page will flip the card.



The 'Show details' will allow the user to view their card number and security code without the asterix as follows:

**Show details**



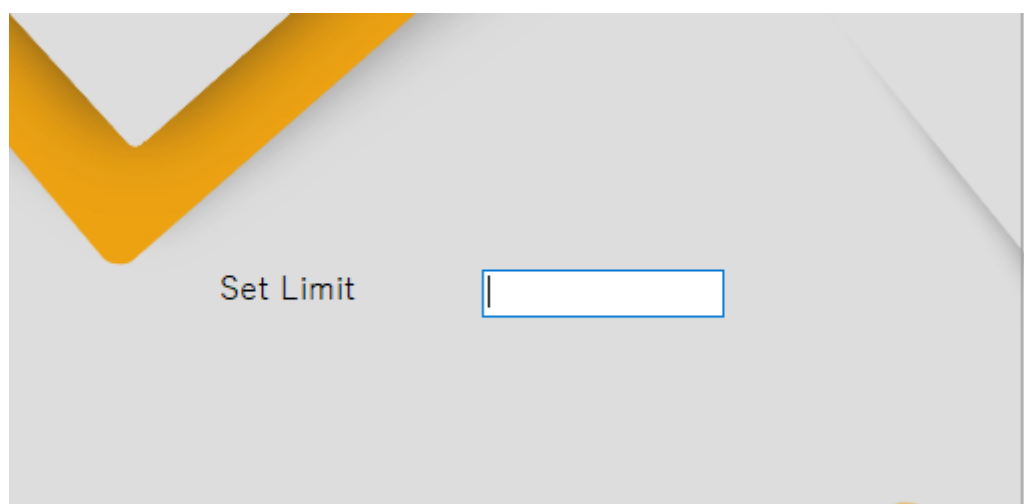
The home page welcomes the user and details his account details, card details such as account number and card number.

The home page further provides information about your available balance and the type or name of the account you are using.



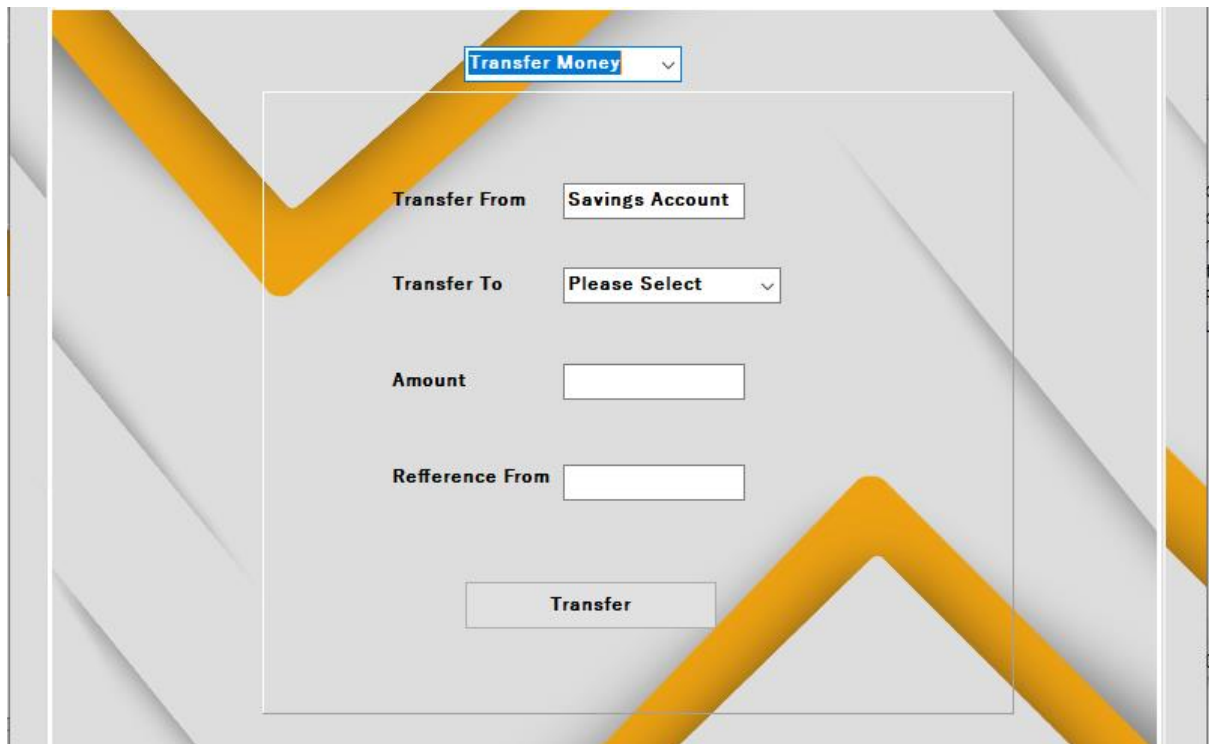
### Set Limits

Before transferring funds, the user will first need to set the limits of the money that is transferred or withdrawn from their account, this will help improve efficiency in banking.





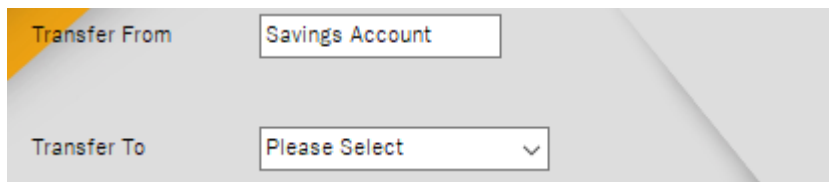
## Transferring funds



The screenshot shows a web interface for transferring funds. At the top, there is a blue button labeled "Transfer Money" with a downward arrow. Below this, a light gray box contains the following fields:

- Transfer From:** A text box containing "Savings Account".
- Transfer To:** A dropdown menu showing "Please Select" with a downward arrow.
- Amount:** An empty text box.
- Reference From:** An empty text box.
- Transfer:** A gray button at the bottom of the form.

The 'PAY' page will allow the user to be able to transfer funds to another account or to another user.



This image is a close-up of the "Transfer From" and "Transfer To" fields from the form shown in the previous image. The "Transfer From" field is a text box containing "Savings Account". The "Transfer To" field is a dropdown menu showing "Please Select" with a downward arrow.

## Add Beneficiary

The 'PAY' page also has an alternative option to add a beneficiary, known as 'Add Beneficiary'. This will add the account as a beneficiary, which will make it easier for the user to transfer funds the next time he/she want to transfer funds to a beneficiary as the user will have saved the beneficiaries' account number.

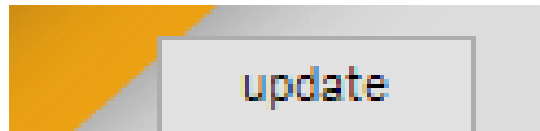


The screenshot shows a web interface for adding a beneficiary. At the top, there is a blue button labeled "Add Beneficiary" with a downward arrow. Below this, a large white rectangular box contains the form fields. Inside the box, the label "Name:" is followed by a text input field. Below that, the label "Account" is followed by another text input field. Under the "Account" field, the text "pnladdbeneficiary" is displayed. At the bottom of the white box, there is a button labeled "Add". The background of the page features a light gray color with large, stylized yellow and orange geometric shapes.

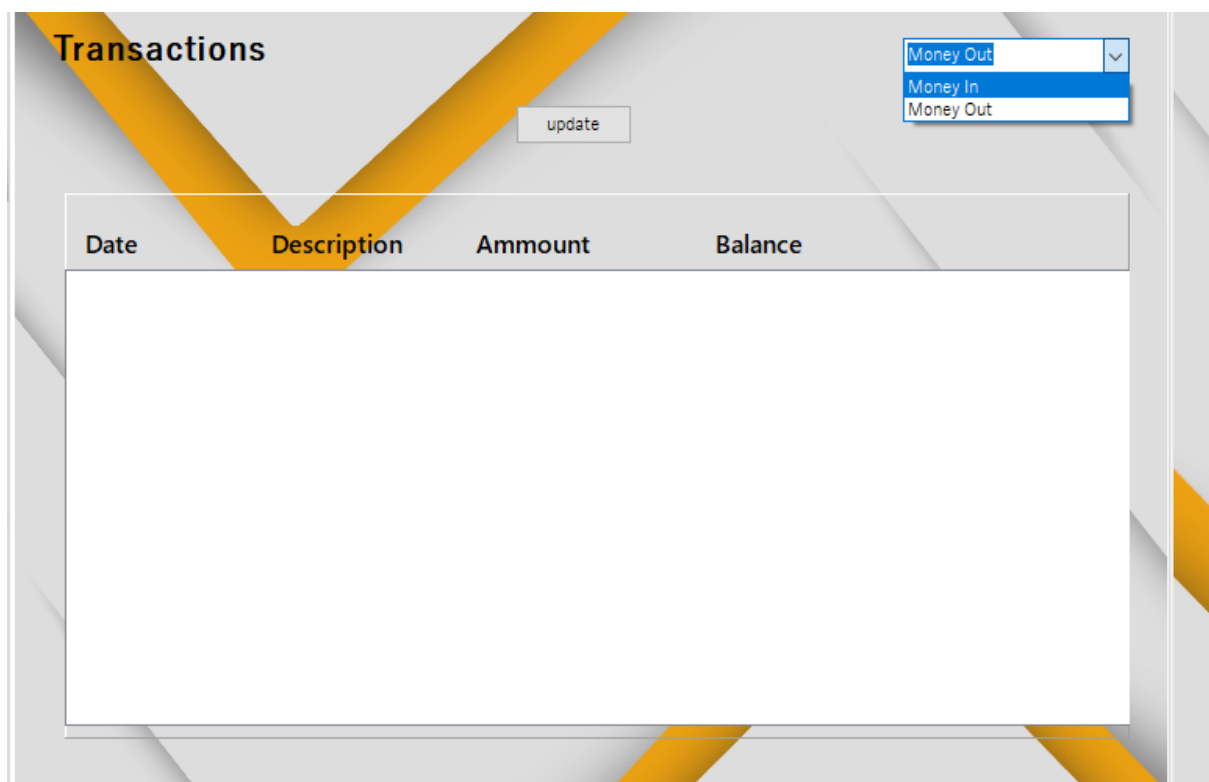
## Transaction History

Updating or viewing transaction history is an important part in any banking system, this allows the user to track their money on the account.

This feature allows the user to keep track of all the funds or activities on the account.



The 'TRANSACTION' page allows the user to track their money more efficiently by selecting whether to view '**Money Out**' or '**Money In**'.


A screenshot of a 'Transactions' page. The page has a grey background with yellow diagonal stripes. At the top left, the word 'Transactions' is written in bold. In the top right corner, there is a dropdown menu with three options: 'Money Out' (selected), 'Money In', and 'Money Out'. Below the dropdown menu is a small 'update' button. In the center of the page is a table with four columns: 'Date', 'Description', 'Ammount', and 'Balance'. The table is currently empty.

Date	Description	Ammount	Balance
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**‘Money In’** refers to the history of which funds were transferred or paid into the account.


**‘Money Out’** refers to the history in which fund were transferred or paid into another account.

MAIN




**EVOLVE BANK**  
*We belong to you!*

Welcome  
elon



SignOut

 Savings Account

AVAILABLE BALANCE  
R174000000000

Home

PAY

BUY

LIMITS

TRANSACTIONS

SETTINGS

Transactions

Money Out

Money In

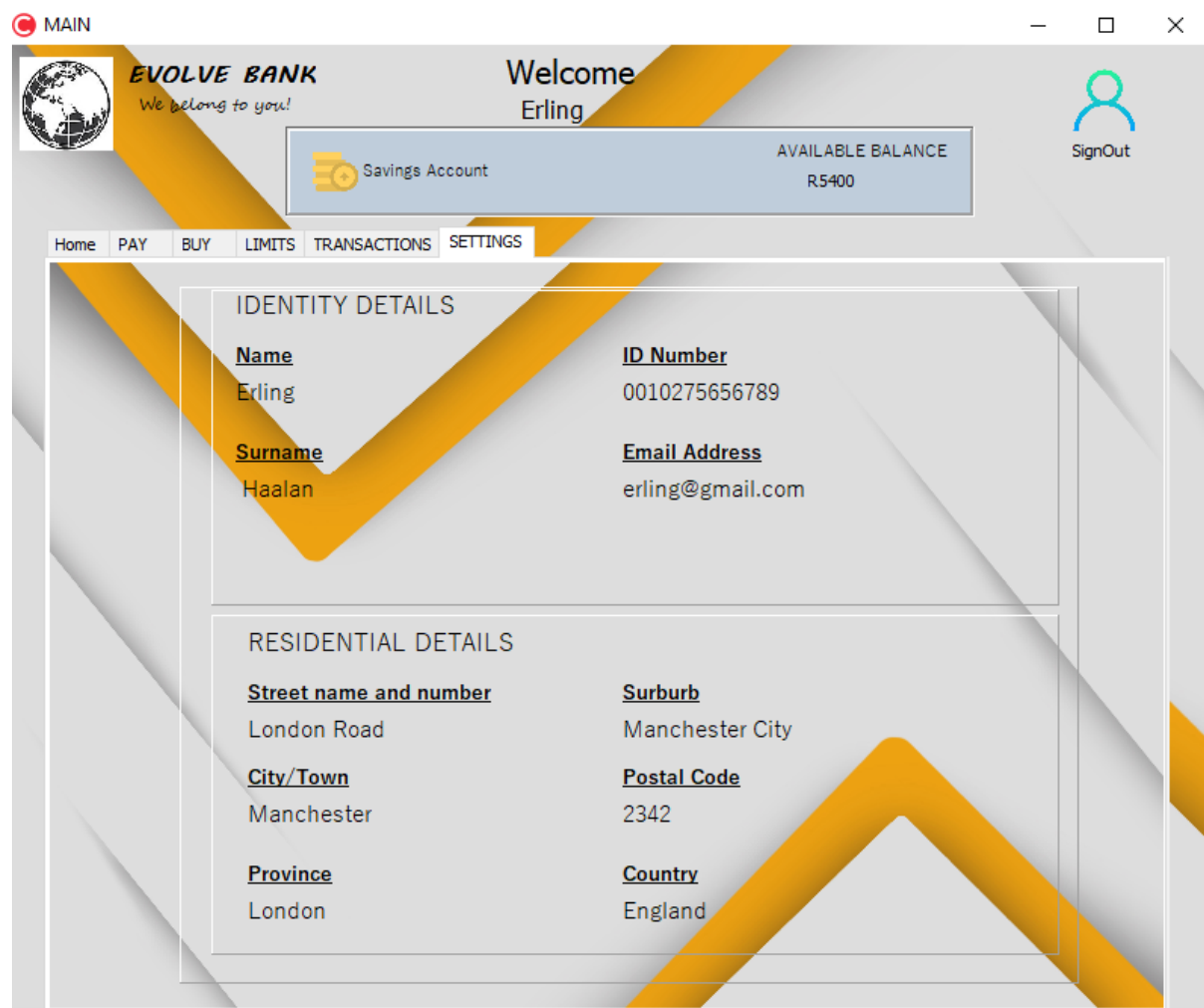
Money Out

update

Date	Description	Ammount	Balance
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## Settings

'Settings' will display your personal information (Identity details) including your residential information (Residential details).



## Sign out!

After completing all activities on the banking app, the user will always look for the 'sign out' option. The top right corner is where all *the magic happens*, the user will either close the tab (the cross located on the top right corner) or double click the 'SignOut' icon (also located in the *magical* top right corner).



## References

Freepik Company S.L. - [www.freepik.com](http://www.freepik.com)

PGM216D content

Flaticon – [flaticon.com](http://flaticon.com)

CppForSchool.com – [www.cppforschool.com](http://www.cppforschool.com)