

# Bank Management System

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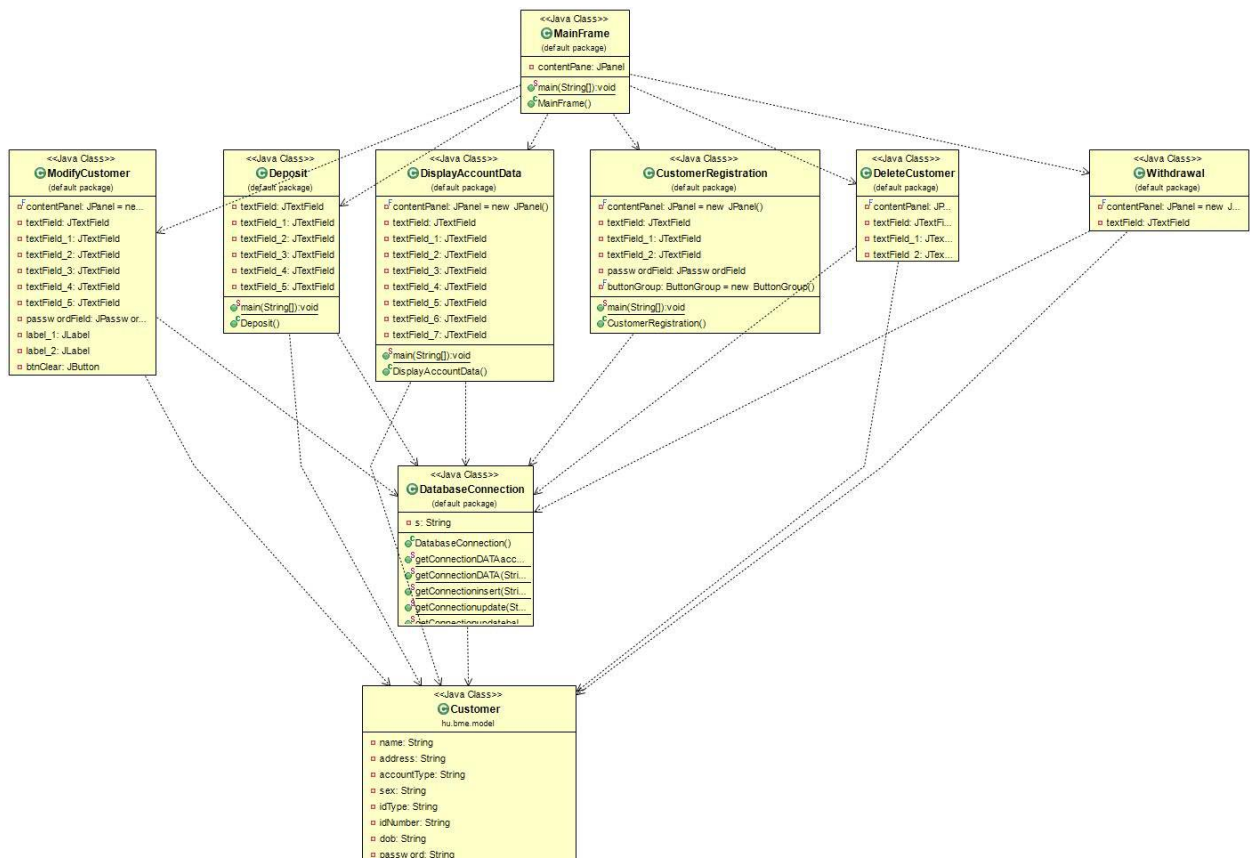
## GENERAL IDEA OF THE PROJECT:

In this project, I tried to show the working of a banking system and cover the basic functionality of a Bank Account Management System. It's an application for maintaining a person's account in a bank.

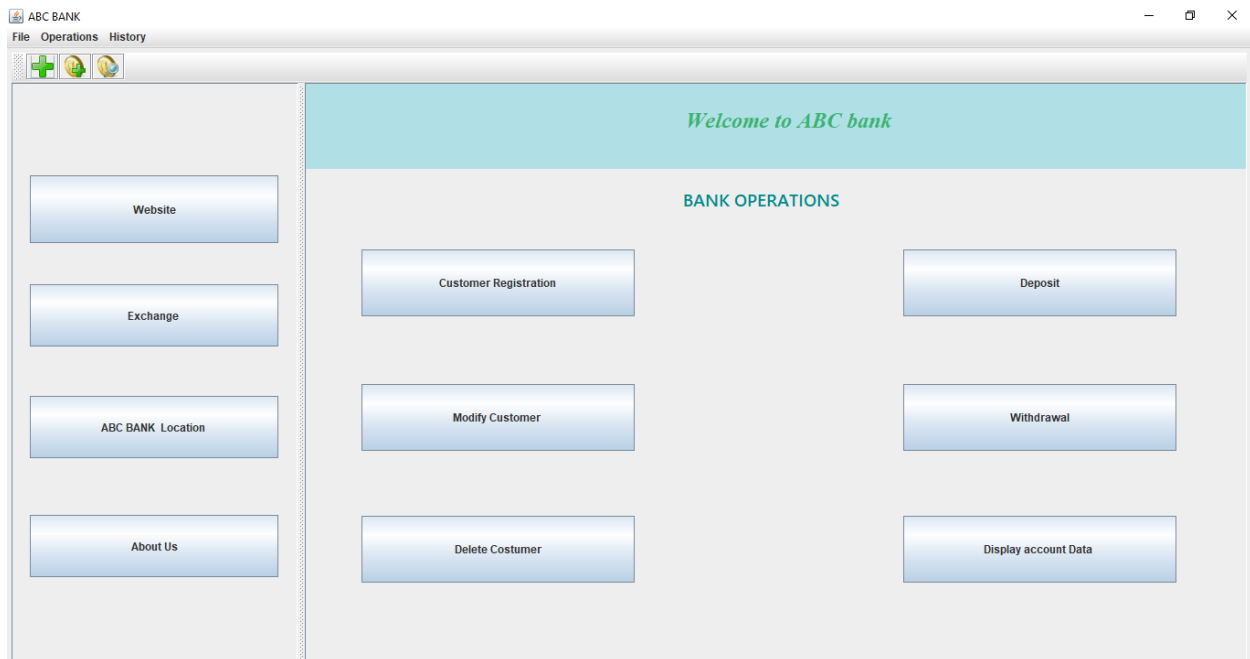
It gives access to staff of the bank for adding accounts, deleting accounts, modifying accounts, withdraw and deposit. each Person has his/her own username and account number.

For this project I used :

- SQL
- Junit
- Swing
- class Diagram :

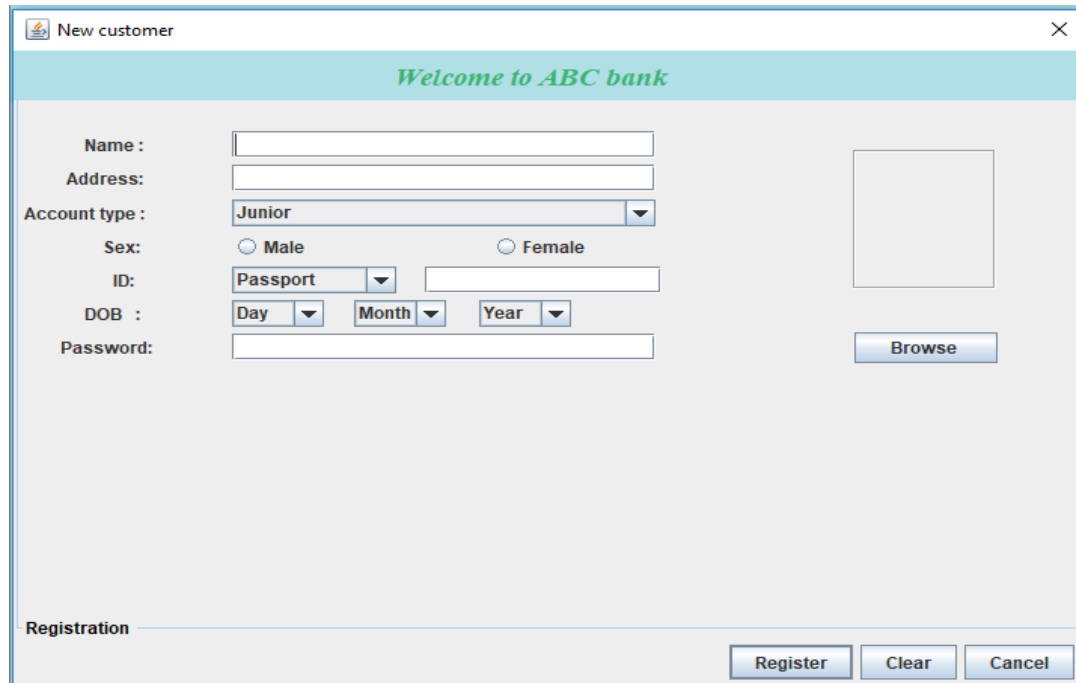


In Main Frame, I showed Bank operations and Some useful link that the bank employer need it.



SO let's start with the Bank operation:

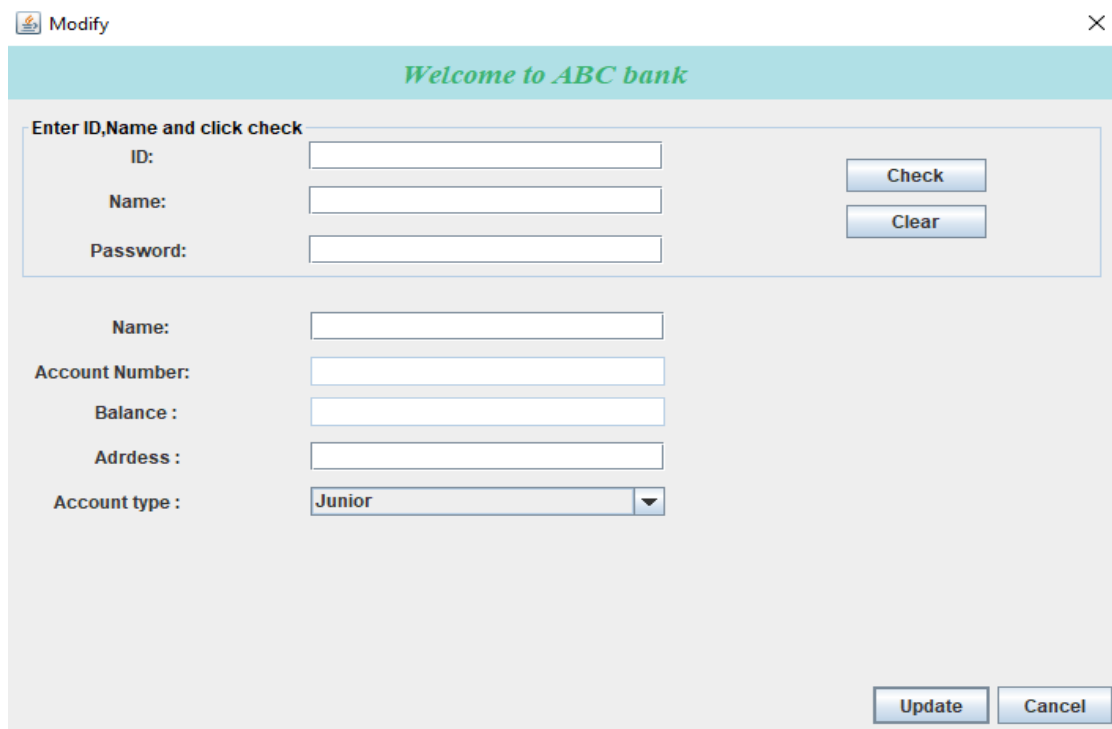
- Customer registration :



A screenshot of a 'New customer' registration window for 'ABC bank'. The window has a title bar with a close button. The header area is light blue with the text 'Welcome to ABC bank'. The main area is light gray and contains several input fields: 'Name', 'Address', 'Account type' (a dropdown menu with 'Junior' selected), 'Sex' (radio buttons for 'Male' and 'Female'), 'ID' (a dropdown menu with 'Passport' selected and an adjacent text box), 'DOB' (three dropdown menus for 'Day', 'Month', and 'Year'), and 'Password'. To the right of these fields is a large empty box for a profile picture and a 'Browse' button. At the bottom left, the word 'Registration' is displayed. At the bottom right, there are three buttons: 'Register', 'Clear', and 'Cancel'.

By pressing Register button , it connect to Localhost Database and save all information about the new customer and specially his or her image(it save the URL ) for more security.

- Modify Customer



A screenshot of a 'Modify' customer window for 'ABC bank'. The window has a title bar with a close button. The header area is light blue with the text 'Welcome to ABC bank'. The main area is light gray and contains two sections. The top section is titled 'Enter ID,Name and click check' and contains input fields for 'ID', 'Name', and 'Password', along with 'Check' and 'Clear' buttons. The bottom section contains input fields for 'Name', 'Account Number', 'Balance', 'Address', and 'Account type' (a dropdown menu with 'Junior' selected). At the bottom right, there are two buttons: 'Update' and 'Cancel'.

So to identify the customer he need to give ID, FULL name and password , all of these should be correct

- Delete Customer

The screenshot shows a window titled "Delete Customer" with a close button (X) in the top right corner. The window has a light blue header bar with the text "Welcome to ABC bank" in green. Below the header, there is a section titled "Enter ID,Name and click check". This section contains two input fields: "ID:" and "Name:", each followed by a text box. To the right of these fields are two buttons: "Check" and "Clear". Below this section, there are five more input fields: "Name:", "Account Number:", "Address:", "ID:", and "Account type :". Below these fields is a "Balance :" field. At the bottom right of the window are two buttons: "Delete" and "Cancel".

So to identify the customer he need to give ID, FULL all of these should be correct

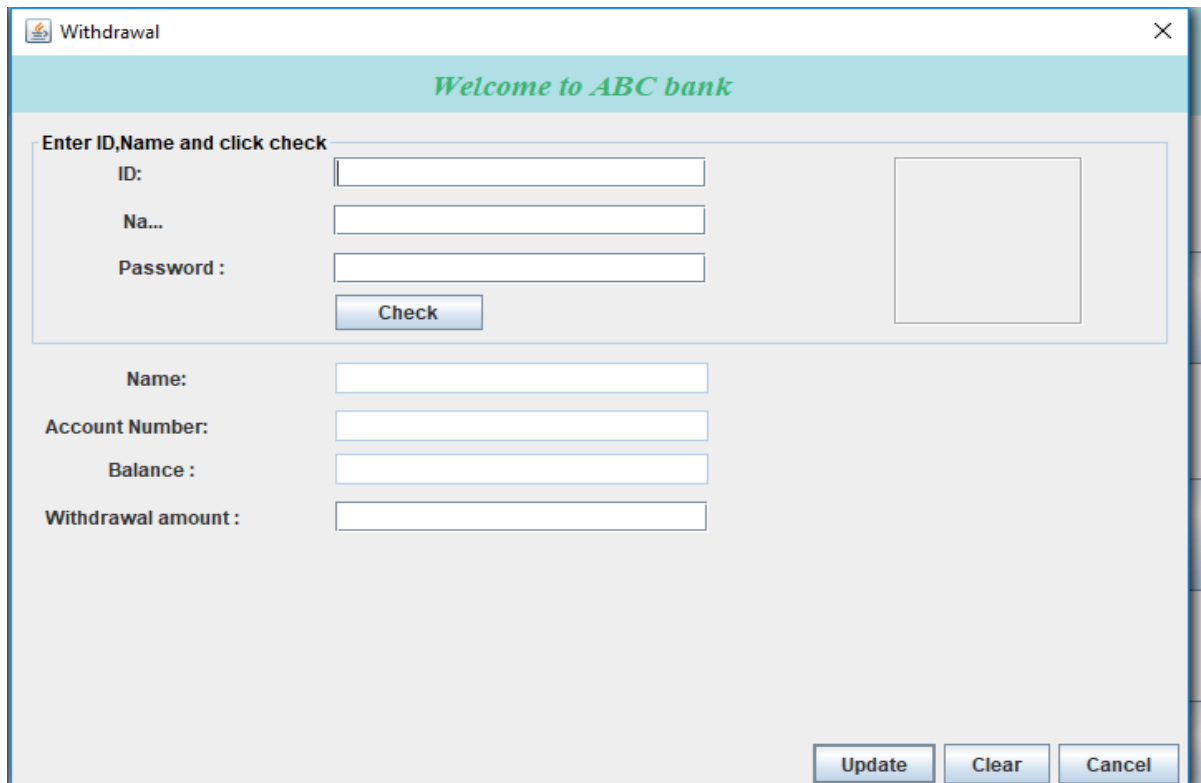
- Deposit

The screenshot shows a window titled "Deposit" with a close button (X) in the top right corner. The window has a light blue header bar with the text "Welcome to ABC bank" in green. Below the header, there is a section titled "Enter ID,Name and click check". This section contains two input fields: "ID:" and "Name:", each followed by a text box. To the right of these fields are two buttons: "Check" and "Clear". Below this section, there are three more input fields: "Name:", "Account Number:", and "Balance :". Below these fields is a "Deposit amount :" field. At the bottom right of the window are two buttons: "OK" and "Cancel".

So to identify the customer he need to give ID, FULL all of these should be correct

And I write the Deposit amount to add it to balance .

- Withdrawal



The image shows a software window titled "Withdrawal" with a close button (X) in the top right corner. The window has a light blue header bar with the text "Welcome to ABC bank" in green. Below the header, there is a section titled "Enter ID,Name and click check" in bold. This section contains three input fields: "ID:", "Na..." (likely Name), and "Password :". To the right of these fields is a large, empty square box, presumably for a customer photo. Below the input fields is a "Check" button. Further down, there are four more input fields: "Name:", "Account Number:", "Balance :", and "Withdrawal amount :". At the bottom right of the window, there are three buttons: "Update", "Clear", and "Cancel".

So to identify the customer he need to give ID, FULL name and password , all of these should be correct, so his or her photo will be showed in my screen to identify the customer (as I said it's for security ).and after that I write the amount to be withdrawal. For sure it' should has balance otherwise no withdrawal happen.

- Display account

The screenshot shows a Java Swing window titled "Display data". At the top, there is a light blue header bar with the text "Welcome to ABC bank" in green. Below the header, the window has a light gray background. A section titled "Enter ID,Name and click check" is enclosed in a rounded rectangle. Inside this section, there are two input fields: "ID:" and "Name:", each followed by a text box. To the right of these fields is a "Check" button. Below this section, there are five more input fields: "Name:", "Account Number:", "Address:", "ID:", and "Account type :", each followed by a text box. At the bottom of the window, there are two buttons: "OK" and "Cancel".

So to identify the customer he need to give ID, FULL name, and display the data of that customer

So for SQL and database part, I used my knowledge and some search implement that part.

Here it is my database connection Functions:

```
public class DatabaseConnection {
    private String s;

    public static List<Customer> getConnectionDATAAccount(String a, String v) throws Exception {
    }

    public static List<Customer> getConnectionDATA(String a, String v, String g) throws Exception {
    }

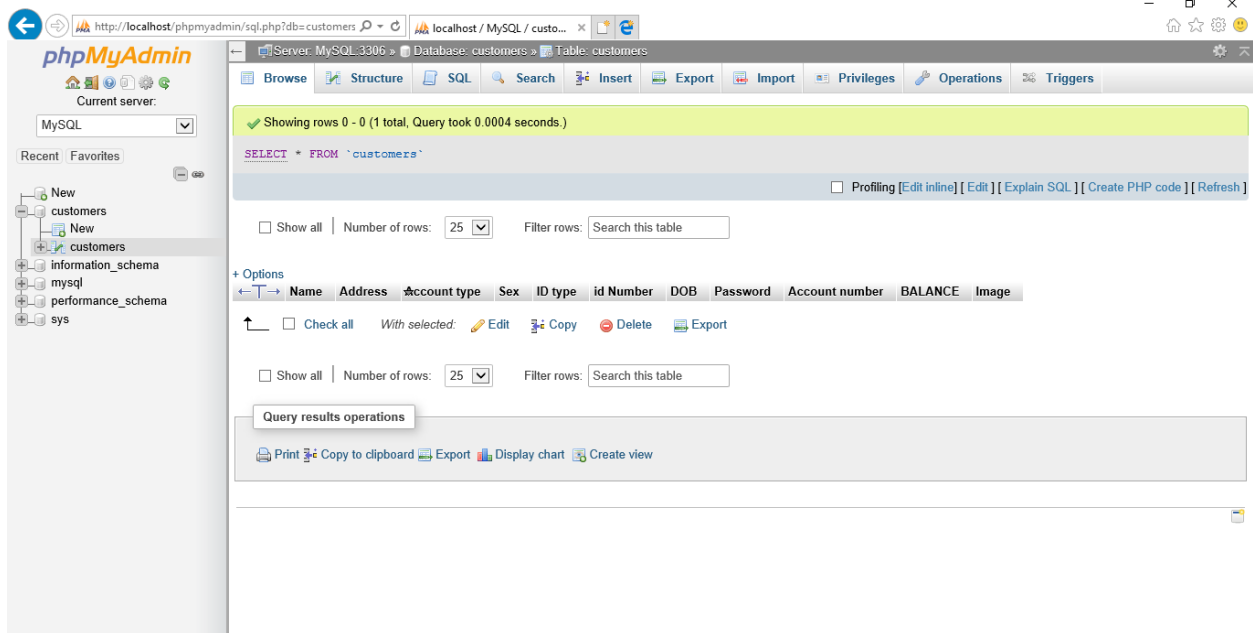
    public static Connection getConnectioninsert(String a, String b, String c, String d, String m, String v, String f,
    )

    public static Connection getConnectionupdate(String a, String b, String c, String d) throws Exception {
    }

    public static Connection getConnectionupdatebalance(String a, String b) throws Exception {
    }

    public static Connection getConnectiondelete(String b) throws Exception {
    }
}
```

So let's try a test some bank operation:  
Here is my database empty



Now I will register a new customer

The screenshot shows the 'New customer' registration form. The form is titled 'Welcome to ABC bank'. It contains the following fields and options:

- Name :** Text input field with 'mahdi' entered.
- Address:** Text input field with 'kocsis' entered.
- Account type :** Dropdown menu with 'Junior' selected.
- Sex:** Radio buttons for 'Male' (selected) and 'Female'.
- ID:** Text input field with 'Identity card' selected from a dropdown and '123' entered.
- DOB :** Three dropdown menus for day, month, and year, with values '13', '10', and '1996' respectively.
- Password:** Password input field with masked characters '...'.
- Image:** A placeholder image of a forest scene with a 'Browse' button below it.

At the bottom of the form, there are three buttons: 'Register', 'Clear', and 'Cancel'.

After clicking on register



The screenshot shows the phpMyAdmin interface for a MySQL database named 'customers'. The 'Structure' tab is selected, displaying the table structure for 'customers'. The table has the following columns: Name, Address, Account type, Sex, ID type, id Number, DOB, Password, Account number, BALANCE, and Image. The 'BALANCE' column is currently NULL. The 'Image' column contains a file path: C:\Users\Karray\mahdi\Desktop\images\la\_france\_cot....

Name	Address	Account type	Sex	ID type	id Number	DOB	Password	Account number	BALANCE	Image
mahdi	kocsis	Junior	male	Identity card	123	13/10/1996	123	1826910371	NULL	C:\Users\Karray\mahdi\Desktop\images\la_france_cot...

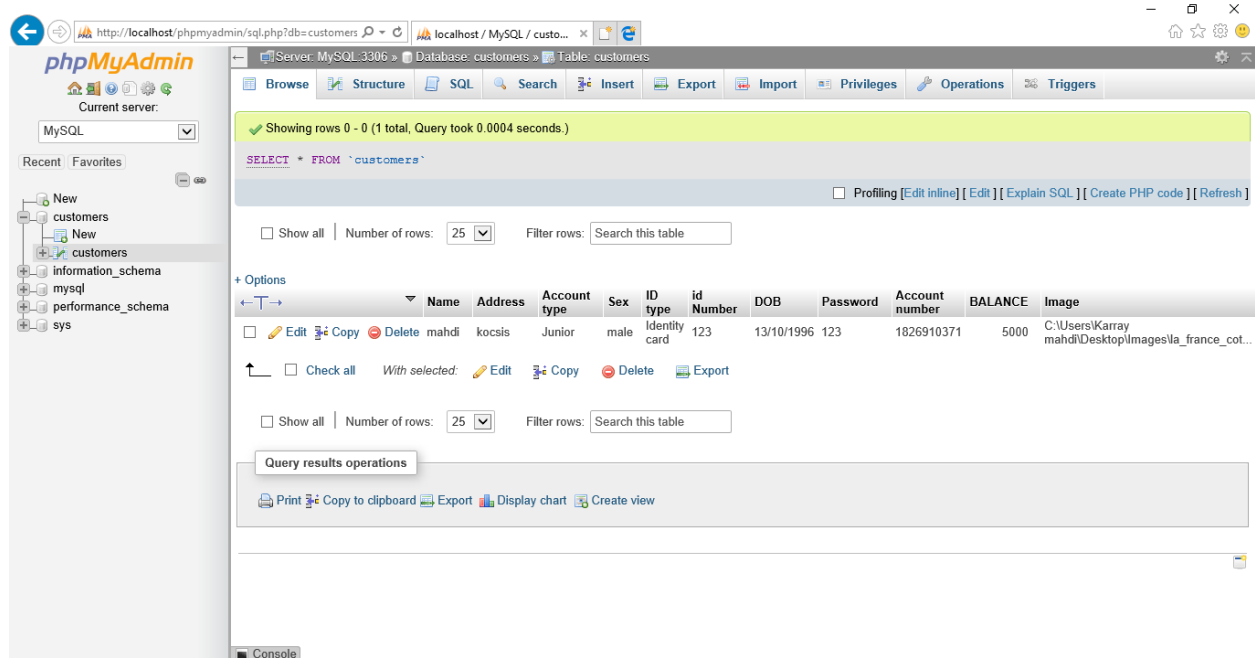
Let's put 5000FT in the balance

The screenshot shows a 'Deposit' form with the following fields and values:

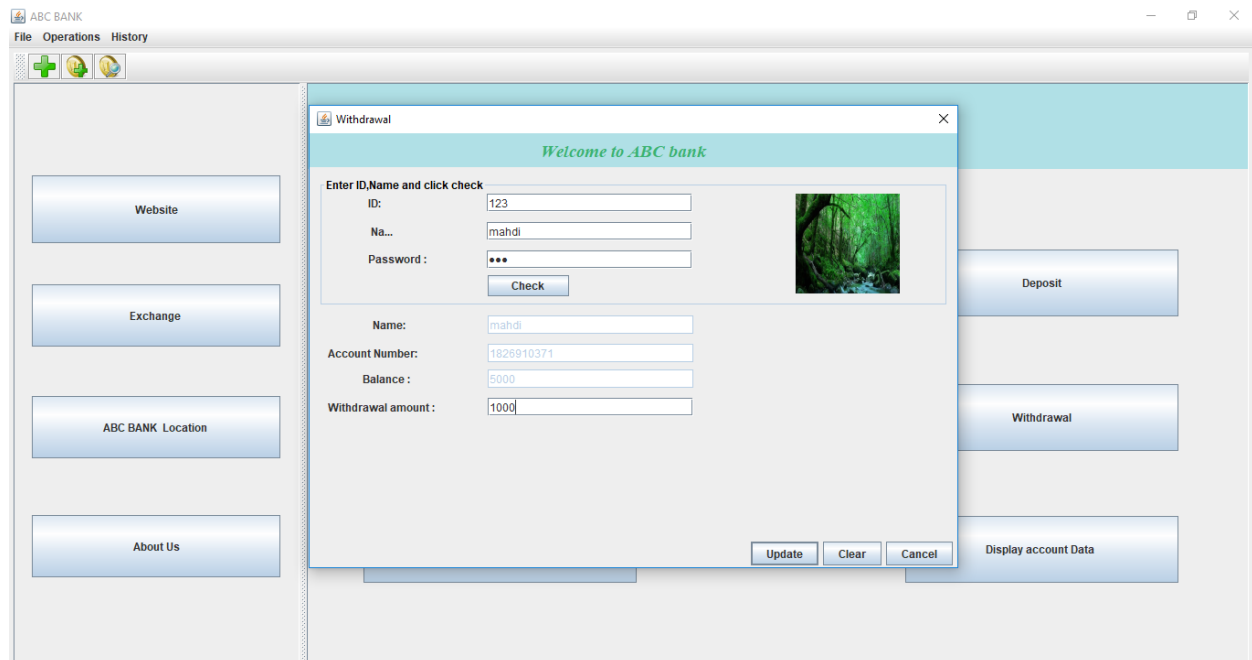
- ID:** 123
- Name:** mahdi
- Account Number:** 1826910371
- Balance:** 0
- Deposit amount:** 5000

The form includes a 'Check' button, a 'Clear' button, and 'OK' and 'Cancel' buttons at the bottom right.

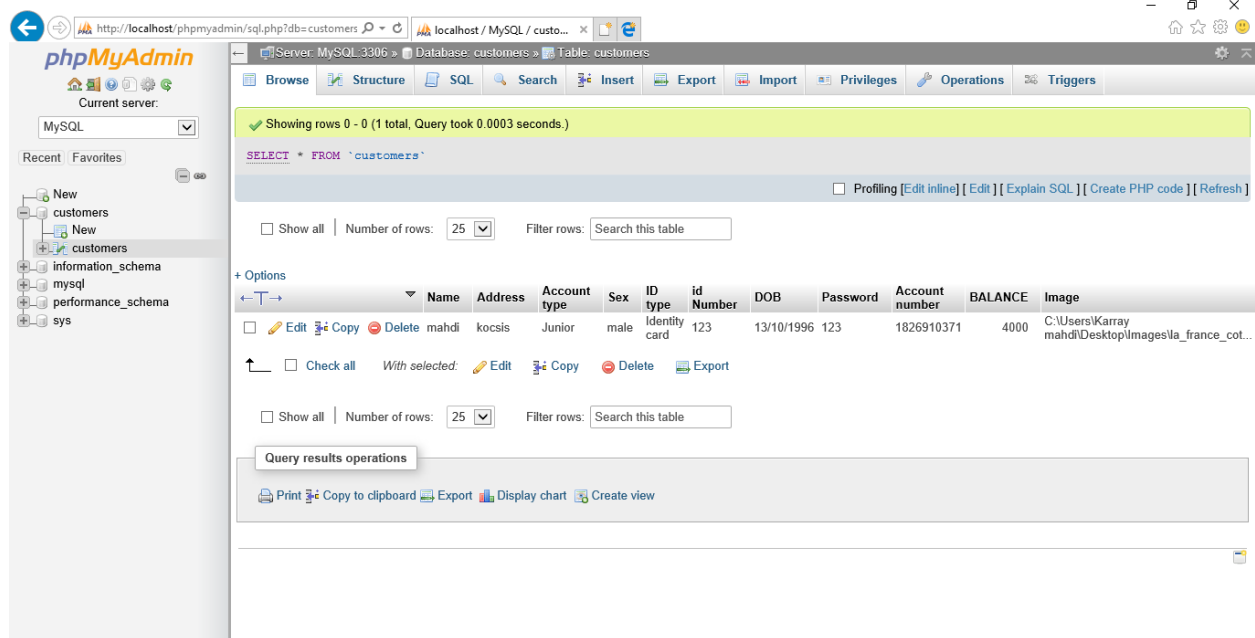
The database updated .



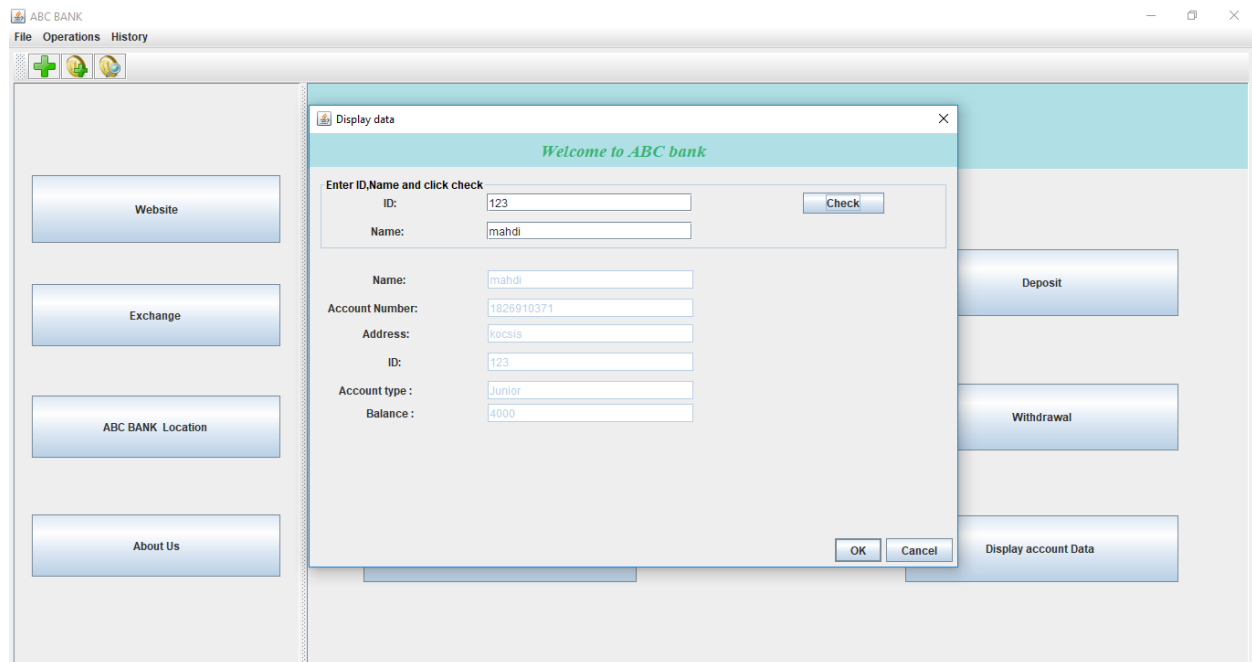
Now let's withdrawal 1000 FT



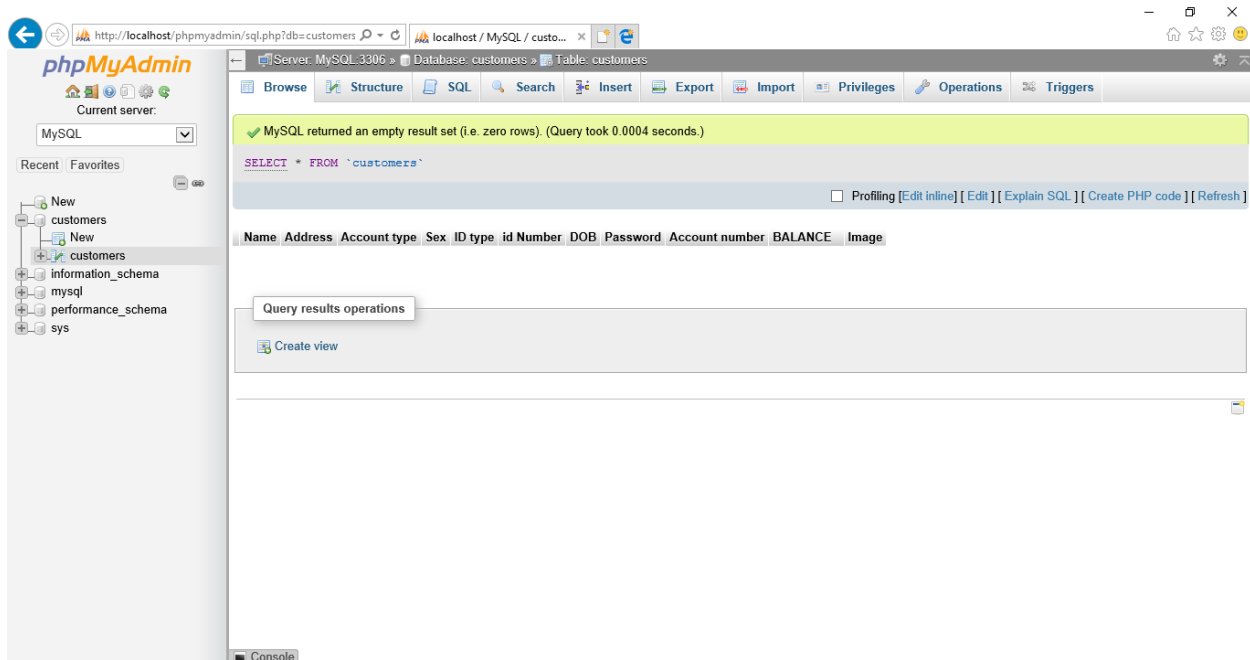
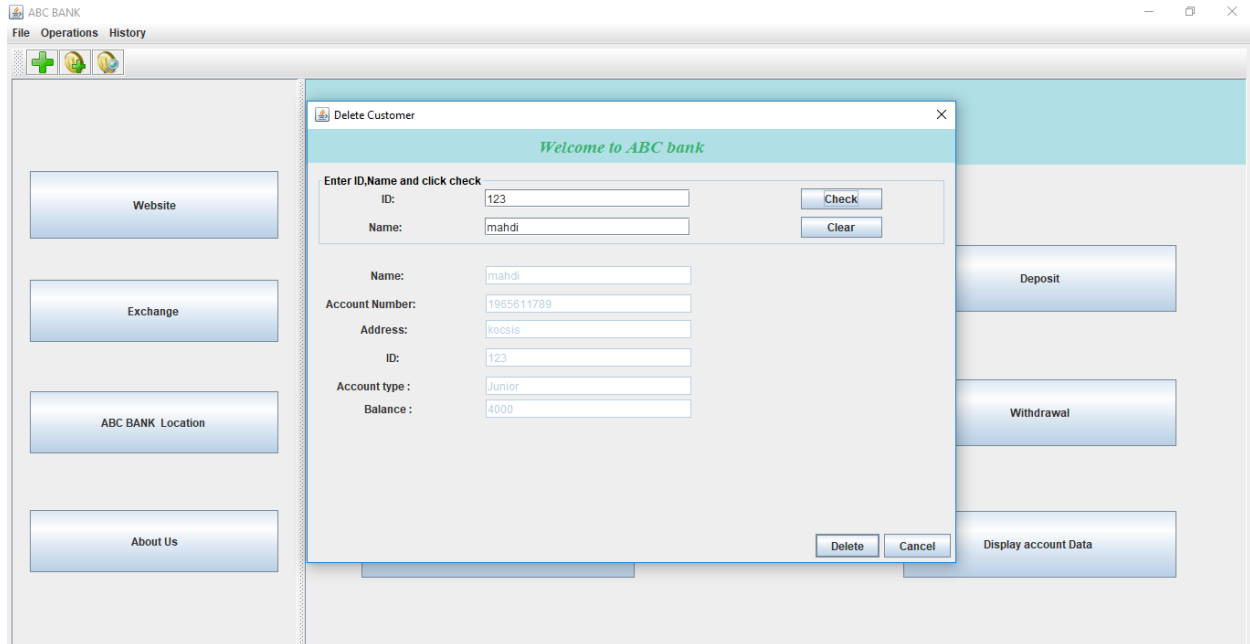
The data base updated



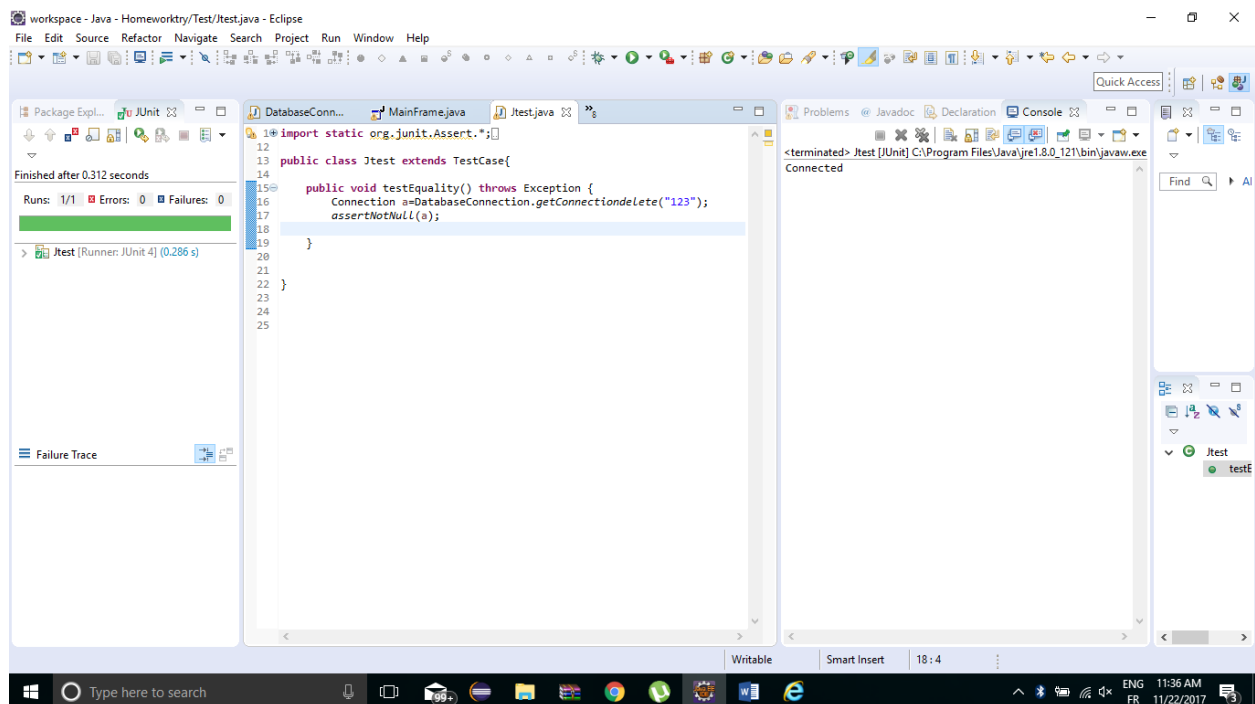
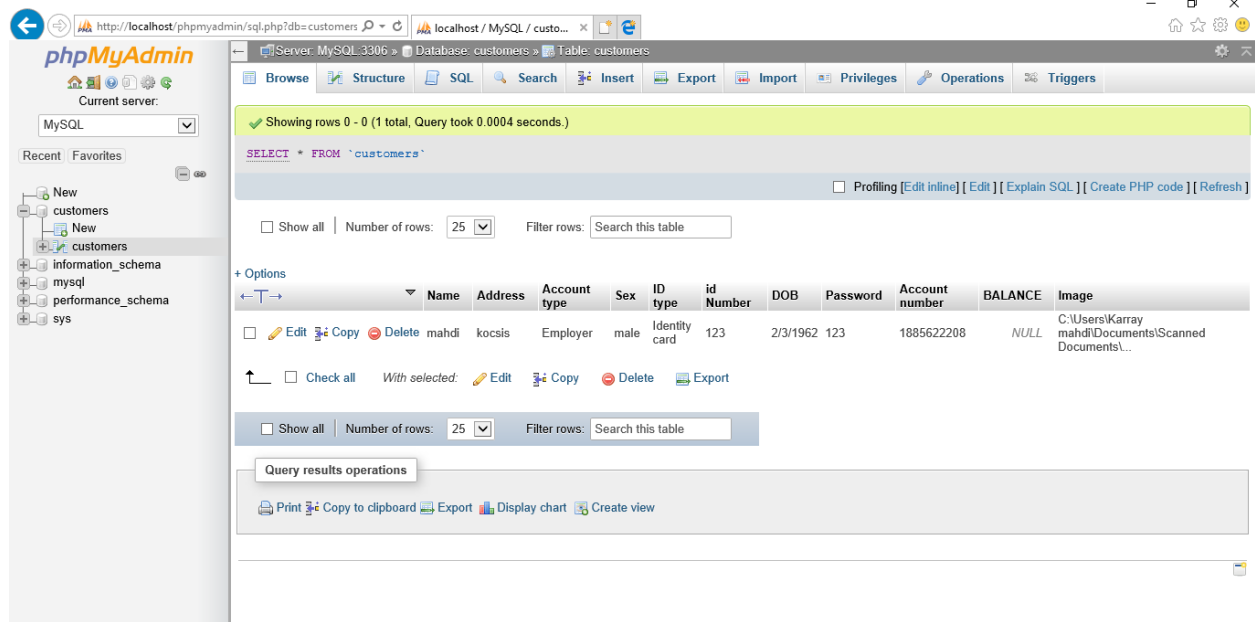
Let's display the data of that account



Let's now delete it

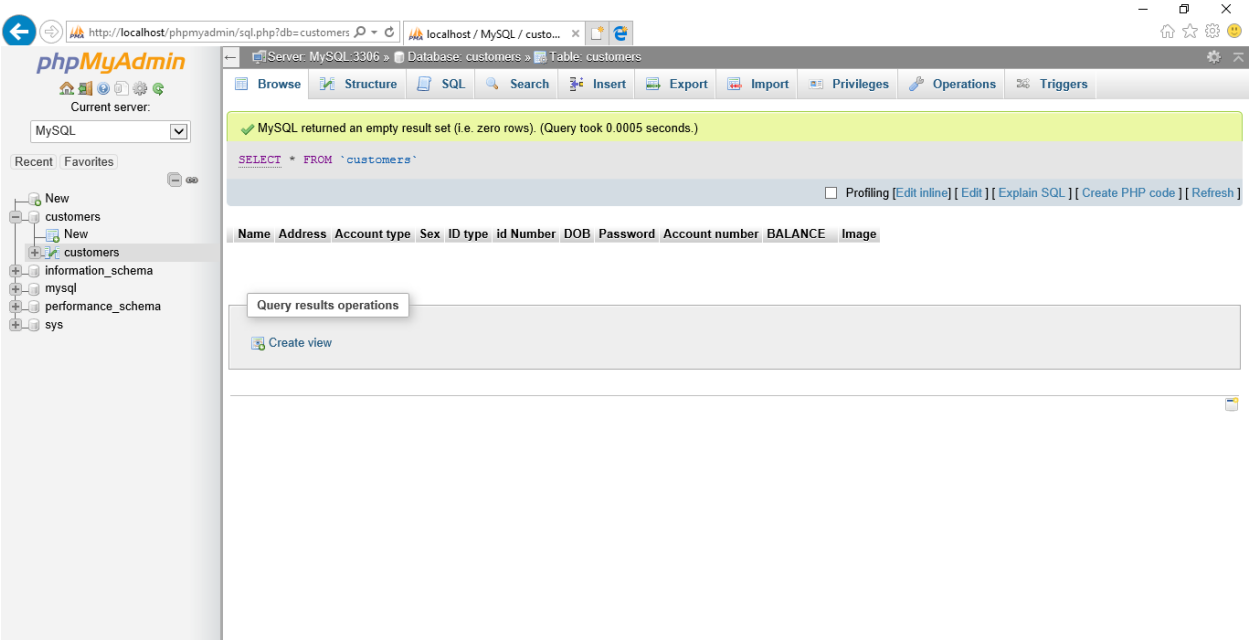


So now let's try it with j unit to test delete function



Success

it connect and delete it



DEVELOPMENT ENVIRONMENT: Eclipse

Karray mahdi