# Bank Management System.

*User Manual for the Bank Management System*

Gives a brief introduction to the bank management system and the operation of the system. About the different interfaces and how the database is accessed.

When you start the system time, first thing you see is the LOGIN WINDOW. Using this window both Administrators and Operators can login to the System. This form will retrieve data from the login table (username, passW fields) in the database, and the empNo field is used to link the employee table to get the Employee Name for later use.


**- <u>Login Screen</u> -**

The default credentials for the Administrator is

- User Name - admin
- Password - 123

The default credentials for the Operator is

- User Name - oper
- Password - 456

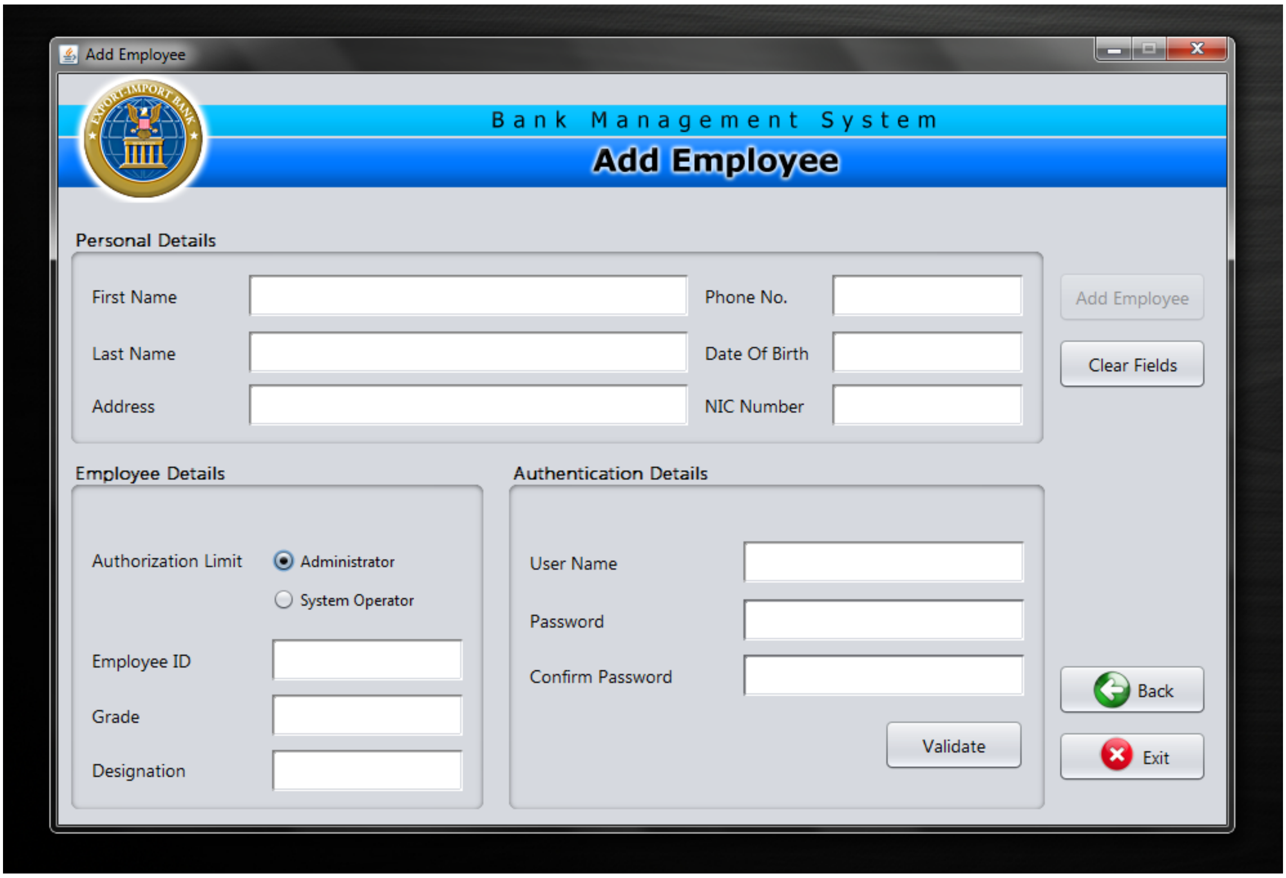
# <u>Administrator Task Menu</u>

After logging in as the "Administrator" the following interface will popup. Here you have links to every Administrative Operation available, they are.

- Add Employees
  - Enables the Administrator to add operators and Administrators in to the system
- Remove Employees
  - Enables the Administrators to Remove Employees from the System
- View Employee List
  - Lists the entire account table and also has the ability to search a particular employee by Employee Number.
- Create Account
  - Grants the user the ability to Create Bank accounts, Both Current Accounts and Savings Accounts are created using this interface
- Close Account
  - This enables the user to close a bank account. Both Currents Accounts and Savings Accounts are deactivated using this interface.


**- Administrator Tasks -**

# Add Employees

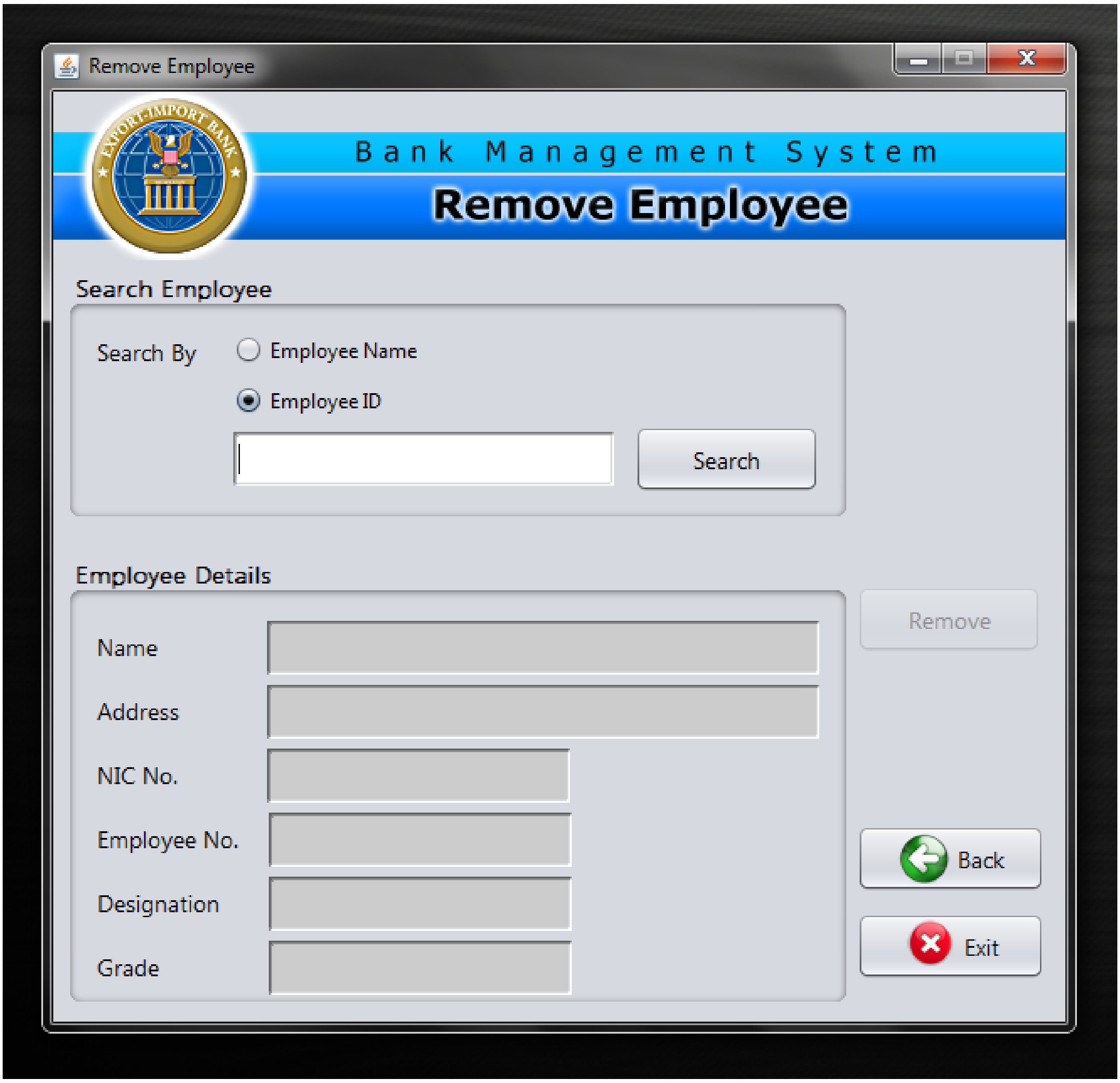



**- Add Employee -**

This form is used to add employees (Both Administrators and Operators) to the system database. Sensitive information fields like. NIC number, Phone Number, User Name, Password are validated before including in to the database. If validation is complete then only you can add the Employee.

**All the details other than Authentication details are included into the *Employee Table* in the *Bank_system database*. The Authentication Details are included in to the *Login table* in the *Bank_system* database**.

# Remove Employees

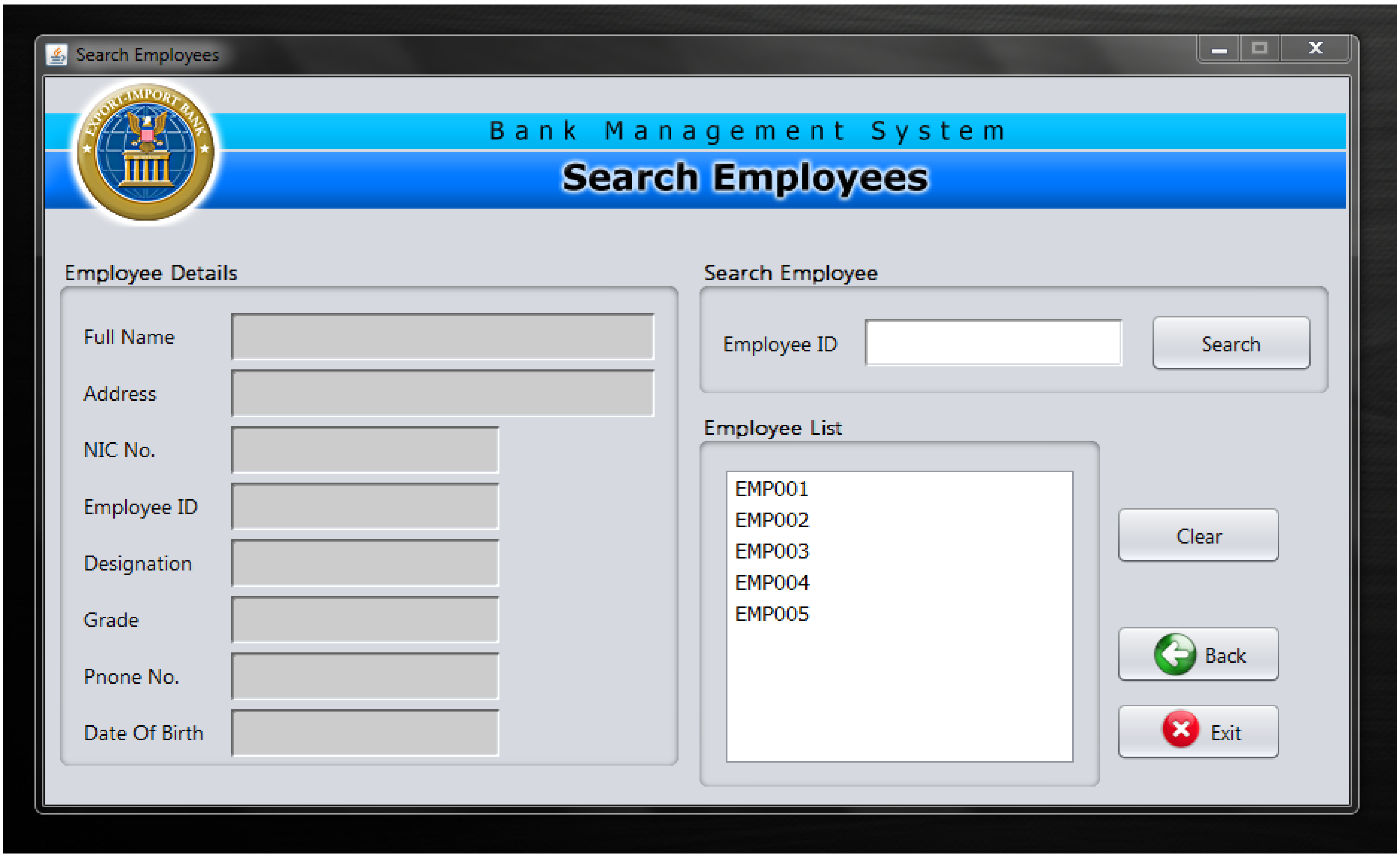



**- Remove Employee -**

This form enables the administrator to remove an Employee from the database, disallowing access to the system. Administrator can search for an Employee either by the employee Number or the Employee Name. When the correct details are displayed clicking the remove button will permanently remove the Employee from the database.

**The entire recode belonging to that particular employee will be deleted from the *Employee Table* in the *Bank_system* database.**

# View Employee List




**- Remove Employee -**

This form allows the administrator to view all the Employees in the database and also search for a particular Employee in the database. Administrator can select the employee number from the employee list and look at the details on the right panel.

**When the search button is clicked with the correct employee number in the text field, all the attributes belonging to that particular Employee is selected from the *Employee Table* in the *Bank system* database. And in the Employee List Box, all the records form the *Employee Table* and only the *Employee Number* is displayed in the list box.**

The next two options in the Administrator Task Menu are

- Creating Account
- Close Account

Both of these features are common to both Administrators and Operators. So the details about these two forms are explained in the Operator Tasks Explanation.

# Operator Task Menu


**- Operator Tasks -**

After logging in as the "Operator" the following interface will popup. Here you have links to every System Operation tasks available, they are.

- Create Account
  - Grants the user the ability to Create Bank accounts, Both Current Accounts and Savings Accounts are created using this interface
- Close Account
  - This enables the user to close a bank account. Both Currents Accounts and Savings Accounts are deactivated using this interface.
- Update Account
  - This enables the operator to update the account balance with automatic interest calculation.
- Update Customer Details
  - Grants the user the ability to Edit and Update the Customers personal details at a later time.
- View Account List
  - Allows the operator to see the account details and also has the ability to search for an account using the Account number.

- Transactions
    - Allows the operator to perform account related transactions like deposit, withdraw, transfer and check balance and view an account statement at the same place.

## Create Account


Using this form operator (And Administrator) can create bank accounts. Here account number and the PIN number is generated automatically and they are displayed after input validation. All the key inputs are validated before adding to the database.

**Here three tables are accessed to store the appropriate information.**

**All the details in the Customer Details section is inserted into the *Customet Table* in the database. All the fields in the customer table is filled with the auto generated PIN number and account number.**

**In the account details section, the general (common) information is inserted into a Common table for both Savings and Current Accounts called *Accounts Table.* Then the account specific information of Savings Accounts and Current Accounts are inserted into tables in this order, *Savings Table , Current Table.* And these tables are linked using the Account number with the help of a primary key – foreign key relationship.**

**When the operator checks the appropriate Option Button to select the account type, necessary fields are activated and details are inserted in to correct database tables.**

# Close Account


Using this form the operator can (and also the Administrator) can search for an account and when it's found close the account. When closing the account the record about the account is not deleted form the table nut its status is set to 'Deactive' and the balance returned to the user. Is there is an outstanding OD in the current account then it has to be paid before closing the account.

**When closing the bank account, the *Accounts Table* is updated with the following changes**

- **The *accStatus* field is set to show Deactive**
- **The *balance* field is set to 0.**

**Everything else is left unchanged..**

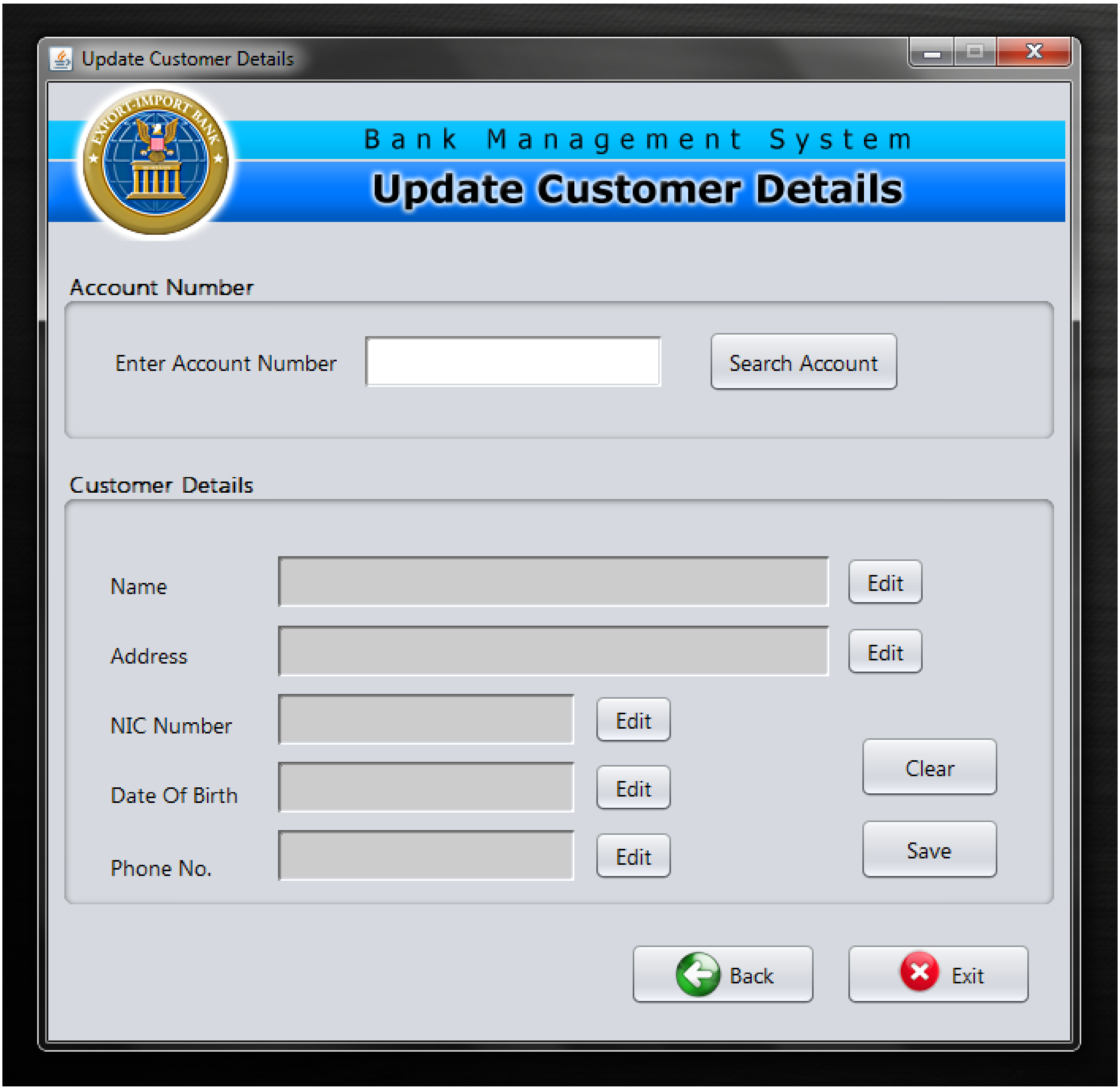
# Update Account


This form can be used to update the accounts interest. When the account number is entered and searched it automatically detects the account type and performs the update as necessary.

**When the account is found and the update account button is clicked the following changes happen.**

- **If it's a Savings Account, the interest is calculated and the** ***balance*** **field in the** ***Account Table*** **is updated**
- **If it's a Current Account, first it checks to see if the OD has been reached, if not interest is not calculated, if an OD has been reached the OD is multiplied by the OD interest rate and added to the account balance (this is a negative balance). Again if the interest is calculated the** ***balance*** **field in the** ***Account Table*** **is updated.**

# Update Customer Details

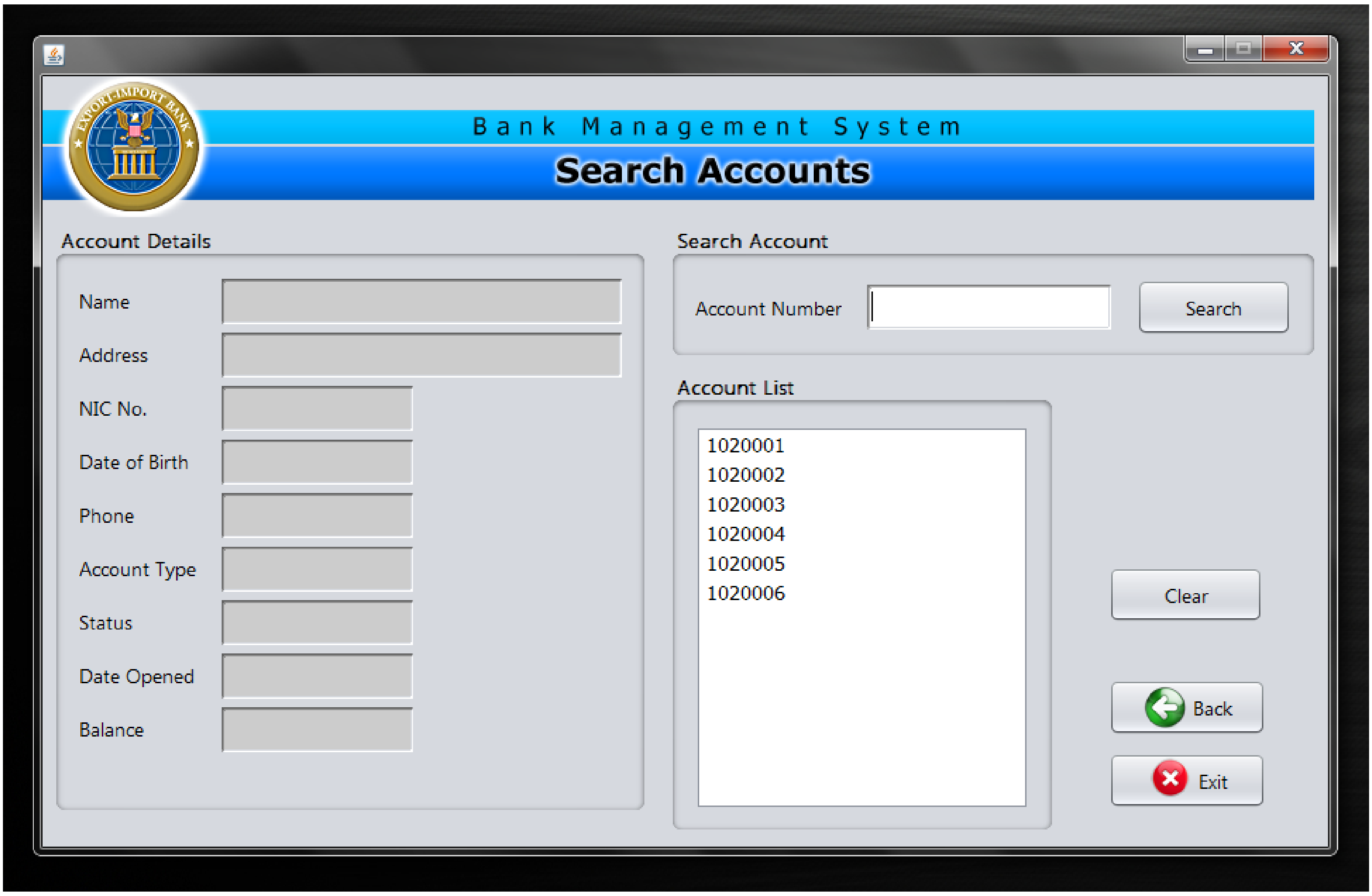



Using this form the operator can edit the personal details of a customer. First the customer is searched using the Account Number and when found the operator can edit the relevant fields by clicking on the **Edit** button in front of the field. And when the save button is clicked the edited information is saved.

**When the save button is clicked the following happens.**

- **The** *cusNIC, name, address, phone, dob* **fields are updated in the** *Customer Table* **in the database.**
- **And the** *name* **field in the** *Accounts Table* **is also updated with the changed customer name.**

# View Account List




This form allows the operator to view all the Bank Accounts in the database and also search for particular Bank Accounts in the database. Operator can select the Account number from the employee list and look at the details on the right panel.

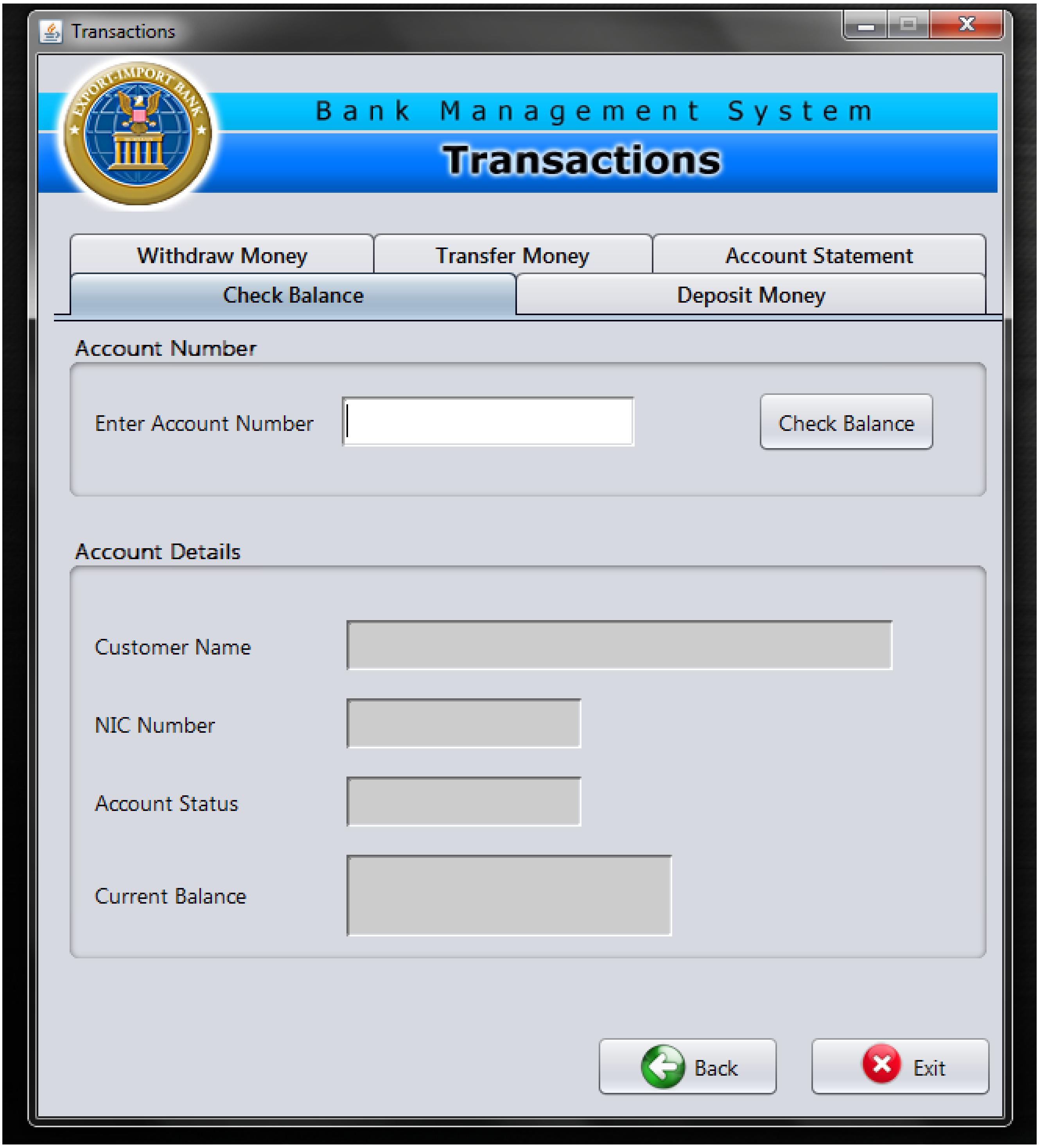
**When the search button is clicked with the correct Account number in the text field, all the attributes belonging to that particular bank account is selected from the *Account Table* in the *Bank system* database. And in the Account List Box, all the records form the *Account Table* and only the *Account Number* is displayed in the list box.**

# Transactions

When the transaction button is clicked on the Operator Task Menu, it takes the user to the Transactions Form. Here the following transactions can be performed.

- Check Balance
- Deposit Money
- Withdraw Money
- Transfer Money
- Print Account Statement

# <u>Transactions – Check Balance</u>




This form allows the user to check the account balance. When the account number is entered the account balance along with some other data is displayed in the account details area.

**When the check balance button is clicked the** *cusNIC, name* **fields form the** *<u>Customer Table</u>* **and** *accStatus, balance* **fields from the** *<u>Accounts Table</u>* **are taken in to the program and displayed.**

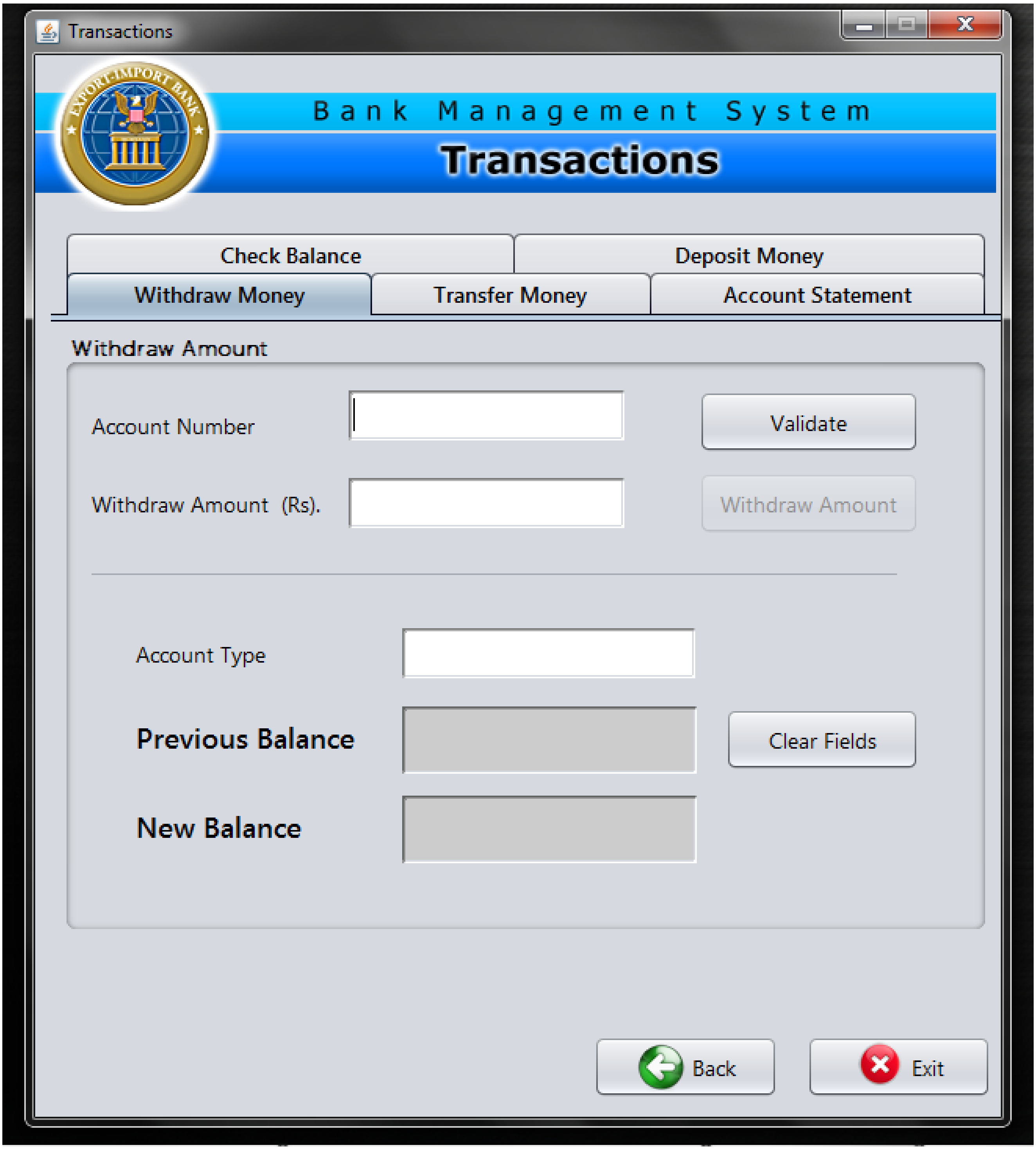
# Transactions – Deposit Money


This form facilitates the Depositing of Money in to the Account. You enter the account number and the amount of the deposit in to the relevant fields and select the Deposit method and click the Deposit Amount Button to deposit the amount to the account.

**Here when the Deposit Amount button is pressed,**

- *Balance* **field is updated with the new balance in the** *Account Table.*
- **And the** *Trans Table* **is Updated with the values, which is** *TID, timmStp, amount, transType, method, accNo, empNo.*

# Transactions – Withdraw Money

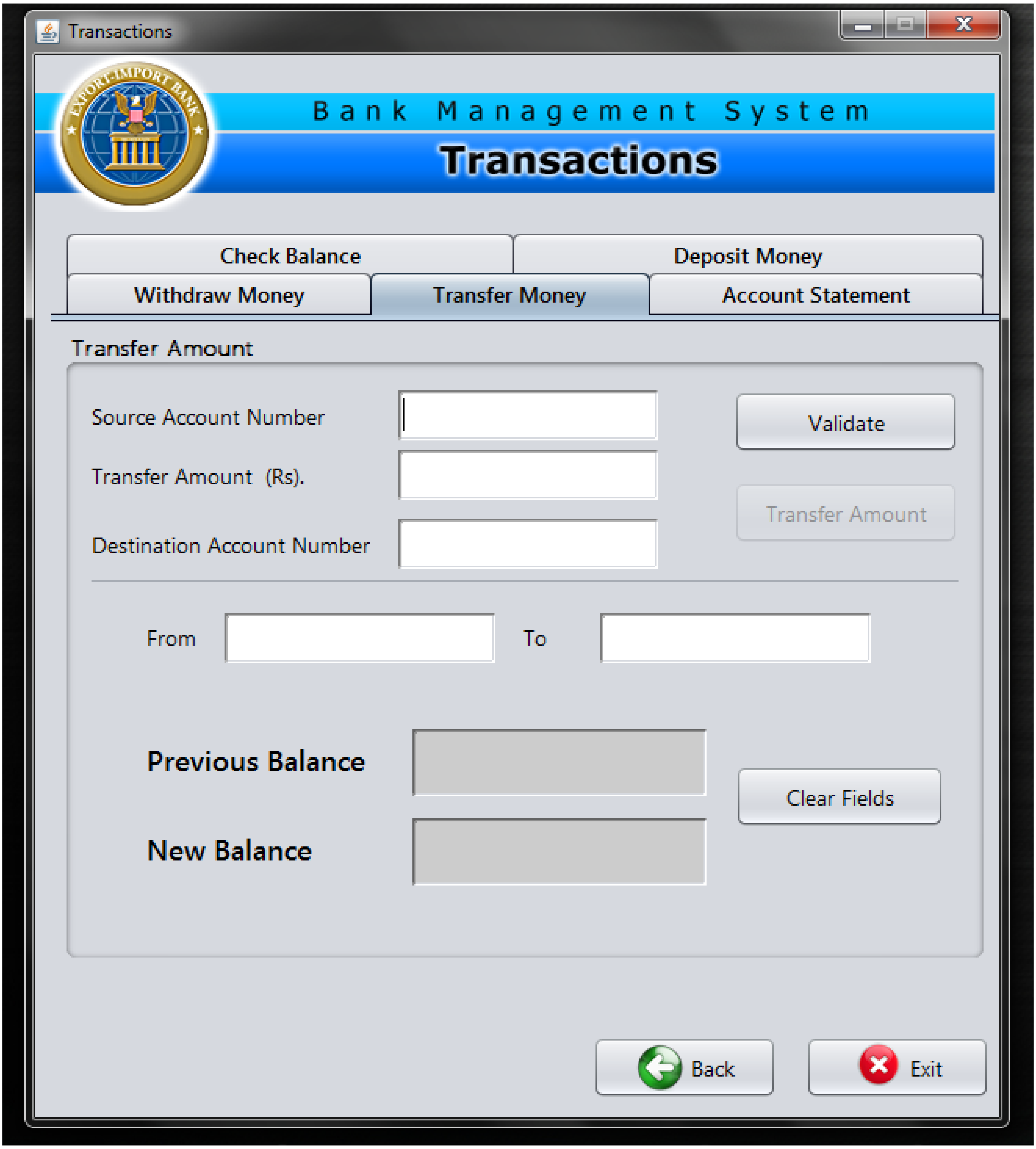



This form facilitates the Withdrawing of Money in to the Account. You enter the account number and the amount of the withdraw in to the relevant fields and click the Withdraw Amount Button to withdraw the amount to the account.

**Here when the Withdraw Amount button is pressed,**

- *Balance* **field is updated with the new balance in the** *Account Table.*
- **And the** *Trans Table* **is Updated with the values, which is** *TID, timmStp, amount, transType, method, accNo, empNo.*

# Transactions – Transfer Money

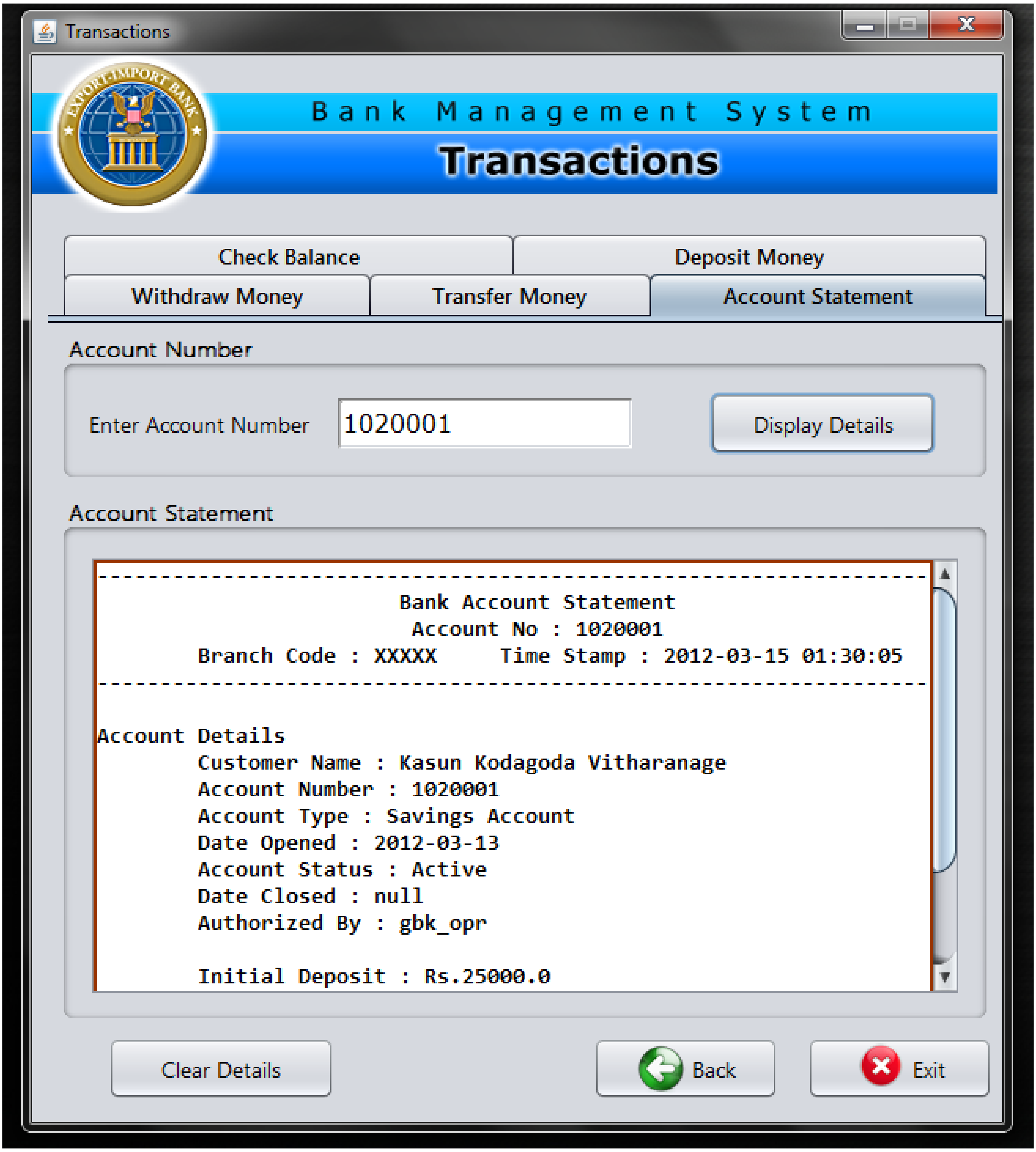



Enter the source account number, the transfer amount and the destination account number and press validate to validate account numbers. After the account validation press the transfer Amount button to transfer the amount.

**Here when the Transfer Amount button is pressed,**

- *Balance* **field is updated in both the accounts with the new balance in the** *Account Table.*
- **And the** *Trans Table* **is Updated with the values, which is** *TID, timmStp, amount, transType, method, accNo, empNo* **and** *destiAccNo.*

# Transactions – Print Account Statement




After entering the account number press the Display Details button, and if the account is available the details of the account will be shown in the area below called Account Statement.

**Here from the _Accounts Table_ & from _Savings/Current Table_ relevant fields are selected and the information is displayed in the Text Area.**