

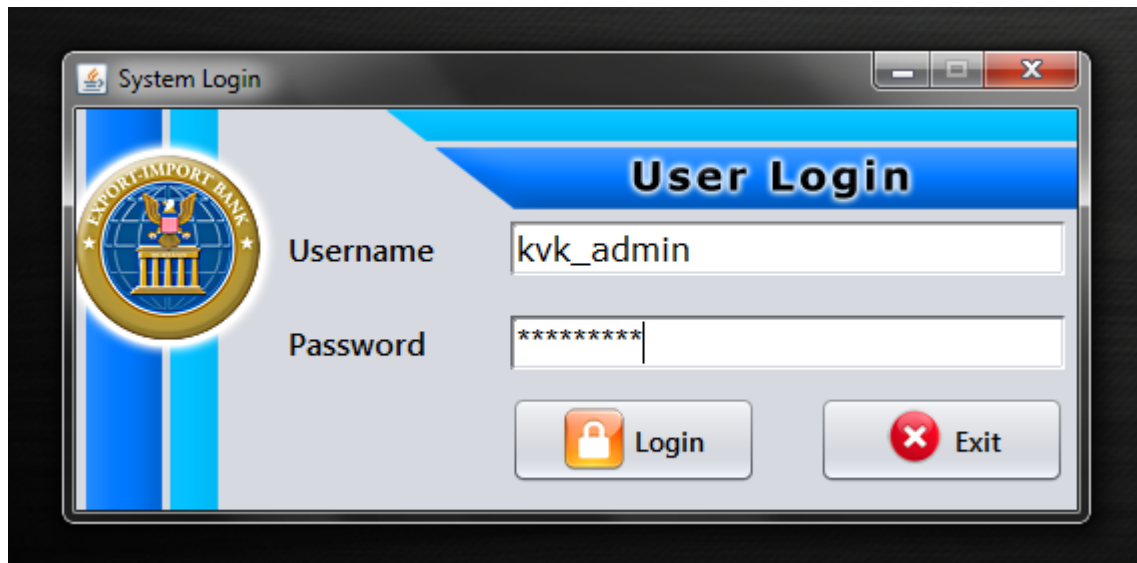


Bank Management System.

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.



- Login Screen -

The default credentials for the Administrator is

- User Name - admin
- Password - 123

The default credentials for the Operator is

- User Name - oper
- Password - 456

Administrator Task Menu

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

Bank Management System

Add Employee

Personal Details

First Name

Last Name

Address

Phone No.

Date Of Birth

NIC Number

Add Employee

Clear Fields

Employee Details

Authorization Limit ☒ Administrator ☐ System Operator

Employee ID

Grade

Designation

Authentication Details

User Name

Password

Confirm Password

Validate

Back

Exit

- 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

Bank Management System
Remove Employee

Search Employee

Search By ☐ Employee Name
☒ Employee ID

Search

Employee Details

Name

Address

NIC No.

Employee No.

Designation

Grade

Remove

Back

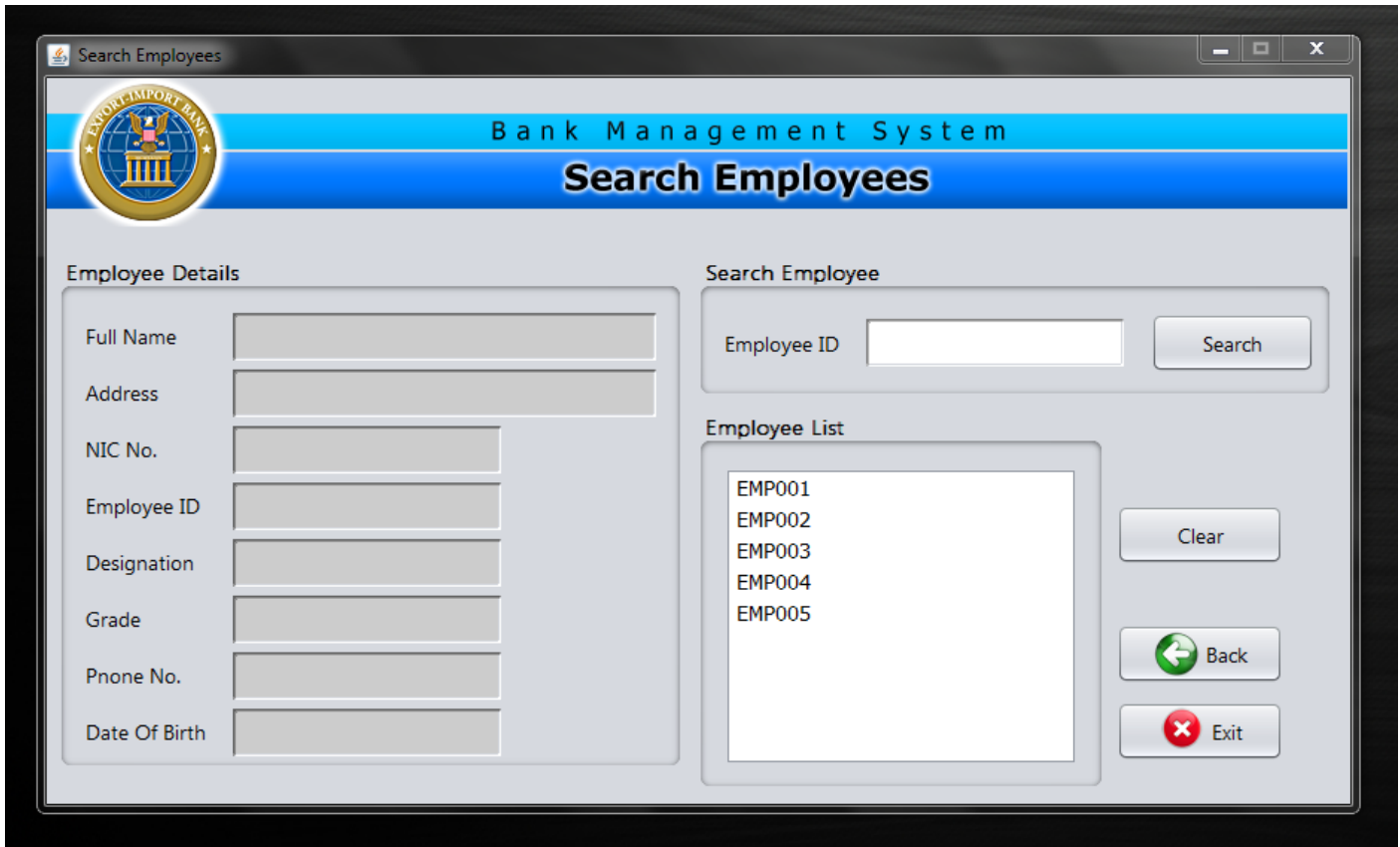
Exit

- 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 record 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

Create Account

Bank Management System

Create Account

Customer Details

First Name Phone No.

Last Name Date Of Birth

Address NIC Number

Account Details

Account Type ☐ Savings Account ☐ Current Account

Initial Deposit (Rs.)

Authorized By

Date Opened

Status : (Active) ☐

Savings

Interest Rate

Minimum Balance

Current

OD Limit

OD Interest Rate

Introduced By

Validate Information

Account No.

PIN No.

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 Customer 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 from the table but its status is set to 'Deactive' and the balance returned to the user. If 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

Update Account

Bank Management System

Update Account

Search Account

Account Number

Update Account

Account Balance

Account Type

Interest Rate

New Balance

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

Update Customer Details

EXPORT-IMPORT BANK

Bank Management System

Update Customer Details

Account Number

Enter Account Number Search Account

Customer Details

Name Edit

Address Edit

NIC Number Edit

Date Of Birth Edit

Phone No. Edit

Clear

Save

Back Exit

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

The screenshot shows a software window titled "Bank Management System" with a subtitle "Search Accounts". On the left, under "Account Details", there are input fields for Name, Address, NIC No., Date of Birth, Phone, Account Type, Status, Date Opened, and Balance. On the right, under "Search Account", there is a text field for "Account Number" and a "Search" button. Below this, under "Account List", is a list box containing the following account numbers: 1020001, 1020002, 1020003, 1020004, 1020005, and 1020006. To the right of the list box are three buttons: "Clear", "Back" (with a green arrow icon), and "Exit" (with a red X icon).

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

Transactions – Check Balance

The screenshot shows a window titled "Transactions" with a standard Windows-style title bar (minimize, maximize, close buttons). The window has a blue header bar with the text "Bank Management System" and "Transactions". On the left side of the header is a circular logo for "EXPORT-IMPORT BANK" featuring a globe and a classical building facade. Below the header, there are four buttons: "Withdraw Money", "Transfer Money", "Account Statement", and "Check Balance". The "Check Balance" button is highlighted. Below these buttons, there is a section titled "Account Number" with a label "Enter Account Number" and a text input field. To the right of the input field is a "Check Balance" button. Below this is a section titled "Account Details" containing four labels and their corresponding input fields: "Customer Name", "NIC Number", "Account Status", and "Current Balance". At the bottom right of the window, there are two buttons: "Back" (with a green left arrow icon) and "Exit" (with a red X icon).

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 *Customer Table* and *accStatus*, *balance* fields from the *Accounts Table* are taken in to the program and displayed.

Transactions – Deposit Money

The screenshot shows a software window titled "Transactions" with a standard Windows-style title bar. Inside the window, there is a header section with a logo on the left and the text "Bank Management System" and "Transactions" in the center. Below the header, there are five buttons: "Withdraw Money", "Transfer Money", "Account Statement", "Check Balance", and "Deposit Money". The "Deposit Money" button is highlighted. Below these buttons, the form is titled "Deposit Amount". It contains several input fields and buttons: "Account Number" with a text box and a "Validate" button; "Deposit Amount (Rs)." with a text box and a "Deposit Amount" button; "Deposit Method" with two radio buttons labeled "Cash" and "Cheque"; "Account Type" with a text box; "Previous Balance" with a disabled text box and a "Clear Fields" button; and "New Balance" with a disabled text box. At the bottom right, there are two buttons: "Back" with a green arrow icon and "Exit" with a red X icon.

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

The screenshot shows a software window titled "Transactions" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the window, there is a header section with a circular logo on the left and a blue banner on the right. The logo features a globe and the text "EXPORT-IMPORT BANK". The banner contains the text "Bank Management System" and "Transactions" in large, bold, white letters. Below the header, there is a navigation bar with five buttons: "Check Balance", "Deposit Money", "Withdraw Money" (highlighted in blue), "Transfer Money", and "Account Statement". The main area of the window is titled "Withdraw Amount" and contains several input fields and buttons. The fields are: "Account Number" (with a text input box), "Withdraw Amount (Rs.)" (with a text input box), "Account Type" (with a text input box), "Previous Balance" (with a disabled text input box), and "New Balance" (with a disabled text input box). The buttons are: "Validate" (next to Account Number), "Withdraw Amount" (next to Withdraw Amount (Rs.)), "Clear Fields" (next to Previous Balance), "Back" (with a green arrow icon), and "Exit" (with a red X icon). The window has a light gray background and a thin border.

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*, *timmmStp*, *amount*, *transType*, *method*, *accNo*, *empNo*.

Transactions – Transfer Money

The screenshot shows a window titled "Transactions" with a standard Windows-style title bar. Inside the window, there is a header section with a circular logo on the left and the text "Bank Management System" and "Transactions" on the right. Below the header, there are five buttons arranged in two rows: "Check Balance", "Deposit Money", "Withdraw Money", "Transfer Money" (which is highlighted), and "Account Statement". The "Transfer Money" button is selected, and its corresponding form is displayed below. The form is titled "Transfer Amount" and contains several input fields and buttons. The first section has three input fields: "Source Account Number", "Transfer Amount (Rs.)", and "Destination Account Number". To the right of the first field is a "Validate" button, and to the right of the second field is a "Transfer Amount" button. Below these fields is a section with "From" and "To" labels and two input fields. At the bottom of the form, there are two input fields labeled "Previous Balance" and "New Balance", and a "Clear Fields" button to their right. At the very bottom of the window, there are two buttons: "Back" (with a green arrow icon) and "Exit" (with a red X icon).

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

The screenshot shows a software window titled "Transactions" with a standard Windows interface (minimize, maximize, close buttons). The window has a blue header bar with the "EXPORT-IMPORT BANK" logo on the left and the text "Bank Management System" and "Transactions" in the center. Below the header, there are five buttons: "Check Balance", "Deposit Money", "Withdraw Money", "Transfer Money", and "Account Statement". The "Account Statement" button is highlighted. Below these buttons, there is a section labeled "Account Number" with a text input field containing "1020001" and a "Display Details" button. Below this is a section labeled "Account Statement" which contains a scrollable text area. The text area displays the following information: "Bank Account Statement", "Account No : 1020001", "Branch Code : XXXXX", "Time Stamp : 2012-03-15 01:30:05", "Account Details", "Customer Name : Kasun Kodagoda Vitharanage", "Account Number : 1020001", "Account Type : Savings Account", "Date Opened : 2012-03-13", "Account Status : Active", "Date Closed : null", "Authorized By : gbk_opr", and "Initial Deposit : Rs.25000.0". At the bottom of the window, there are three buttons: "Clear Details", "Back" (with a green arrow icon), and "Exit" (with a red X icon).

Transactions

EXPORT-IMPORT BANK

Bank Management System

Transactions

Check Balance Deposit Money

Withdraw Money Transfer Money Account Statement

Account Number

Enter Account Number 1020001 Display Details

Account Statement

Bank Account Statement
Account No : 1020001
Branch Code : XXXXX Time Stamp : 2012-03-15 01:30:05

Account Details
Customer Name : Kasun Kodagoda Vitharanage
Account Number : 1020001
Account Type : Savings Account
Date Opened : 2012-03-13
Account Status : Active
Date Closed : null
Authorized By : gbk_opr
Initial Deposit : Rs.25000.0

Clear Details Back Exit

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.