

Data Base Management System- Mini Project

Bank Management System

Aim:

To build a Mini project on Bank Management System using Visual basic and SQL.

Software Used:

- Visual Studio
- My SQL

Back End:

The Back End of this project was built using My SQL.

Code:

User:

To create user table:

```
create table user(Name char(20),AccountNumber int(40),BankBalance  
varchar(40),AccountType char(20));
```

```
mysql> create table user(Name char(20),AccountNumber int(40),BankBalance varchar(40),AccountType char(20));  
Query OK, 0 rows affected, 1 warning (3.93 sec)
```

To insert values into user table:

```
insert into user  
values("Riya",123,"Rs.40000","Current"),("Isha",435,"Rs.12000","Saving"),("Sam",786,"Rs.99000","Current"),("Rishi",527,"Rs.50000","Current"),("Madav",972,"Rs.84000","Saving");
```

```
mysql> insert into user values("Riya",123,"Rs.40000","Current"),("Isha",435,"Rs.12000","Saving"),("Sam",786,"Rs.99000","Current"),("Rishi",527,"Rs.50000","Current"),("Madav",972,"Rs.84000","Saving");  
Query OK, 5 rows affected (0.45 sec)  
Records: 5 Duplicates: 0 Warnings: 0
```

To display the user table:

```
select * from user;
```

```
mysql> select * from user;
```

Name	AccountNumber	BankBalance	AccountType
Riya	123	Rs.40000	Current
Isha	435	Rs.12000	Saving
Sam	786	Rs.99000	Current
Rishi	527	Rs.50000	Current
Madav	972	Rs.84000	Saving

```
5 rows in set (0.00 sec)
```

Manager:

To create manager table:

```
create table manager(ManagerName char(30),ManagerID int(40));
```

```
mysql> create table manager(ManagerName char(30),ManagerID int(40));
Query OK, 0 rows affected, 1 warning (2.84 sec)
```

To insert values into manager table:

```
insert into manager
values("Rohan",101),("Sonal",102),("Tom",103),("Varun",104),("Anu",105);
```

```
mysql> insert into manager values("Rohan",101),("Sonal",102),("Tom",103),("Varun",104),("Anu",105);
Query OK, 5 rows affected (0.37 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

To display the manager table:

```
select * from manager;
```

```
mysql> select * from manager;
```

ManagerName	ManagerID
Rohan	101
Sonal	102
Tom	103
Varun	104
Anu	105

```
5 rows in set (0.00 sec)
```

Cashier:

To create cashier table:

```
create table cashier(CashierName char(30),CashierID int(5));
```

```
mysql> create table cashier(CashierName char(30),CashierID int(5));
Query OK, 0 rows affected, 1 warning (1.78 sec)
```

To insert values into cashier table:

```
insert into cashier
values("Manoj",201),("Teena",202),("Thara",203),("Karen",204),("Chan",205);
```

```
mysql> insert into cashier values("Manoj",201),("Teena",202),("Thara",203),("Karen",204),("Chan",205);
Query OK, 5 rows affected (0.17 sec)
Records: 5 Duplicates: 0 Warnings: 0
```

To display the cashier table:

```
select * from cashier;
```

```
mysql> select * from cashier;
+-----+-----+
| CashierName | CashierID |
+-----+-----+
| Manoj      | 201      |
| Teena      | 202      |
| Thara      | 203      |
| Karen      | 204      |
| Chan       | 205      |
+-----+-----+
5 rows in set (0.00 sec)
```

Connectivity:

With the help of My SQL.Net connector driver and My SQL for visual studio plugin/add-on, a connection between the front end (visual studio) and back end (My SQL databases) can be made successfully

To connect to the database, the following procedure are followed:

- Select TOOLS → Connect to Database
- Select a server name and the database name in the Add Connection dialog box.
- Click on the Test Connection button to check if the connection succeeded.
- Add a Data Grid View on the form.
- Click on the Choose Data Source combo box.
- Click on the Add Project Data Source link.
- This opens the Data Source Configuration Wizard.
- Select Database as the data source type.

- Choose Data Set as the database model.
- Choose the connection already set up.
- Save the connection string.
- Choose the database object, user table in our example, and click the Finish button.

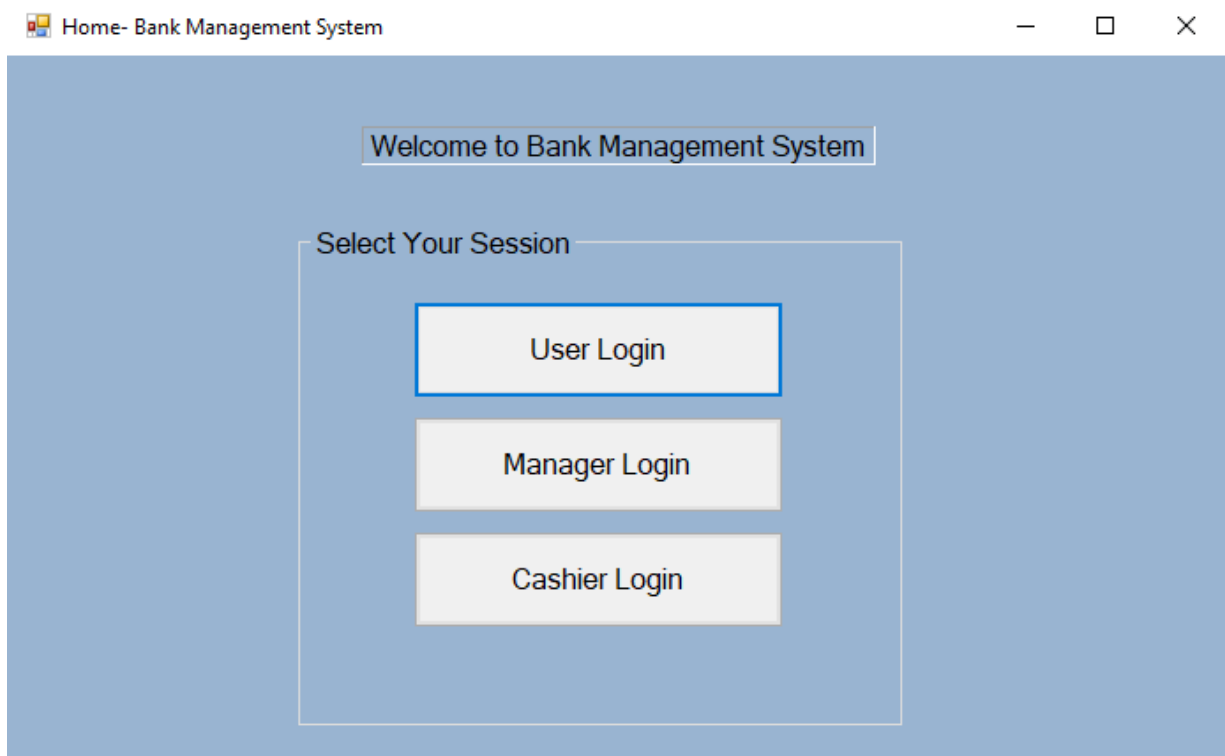
Front End:

The Front End of this project was built on Visual Studio software using visual basic.

Tool Used:

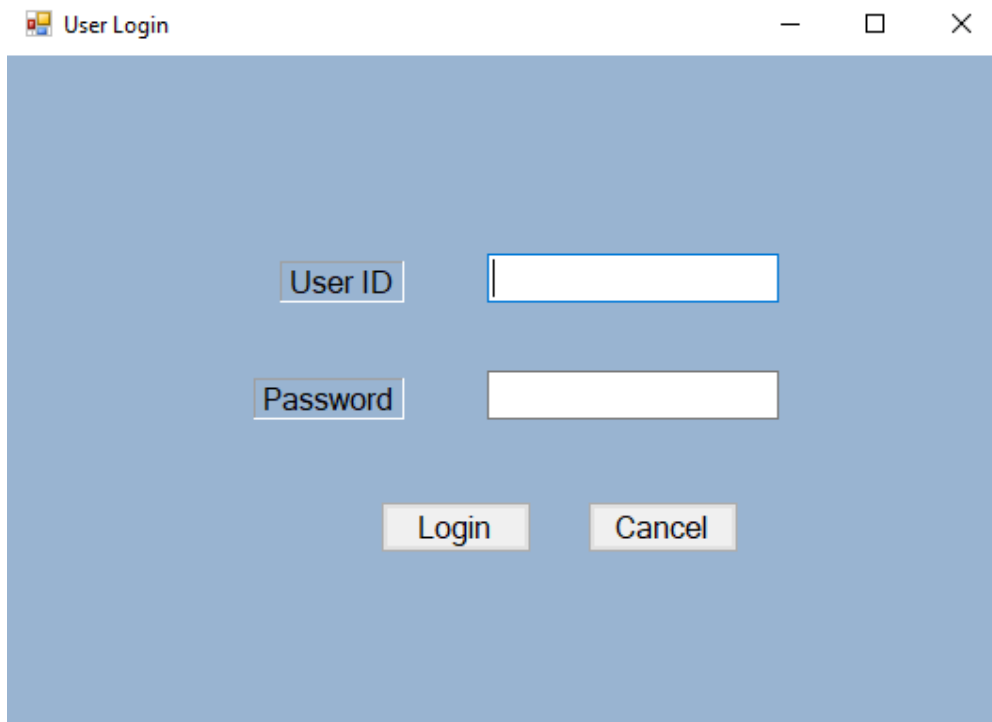
- Form
- Group Box
- Label
- Button
- Text Box

Home Page:



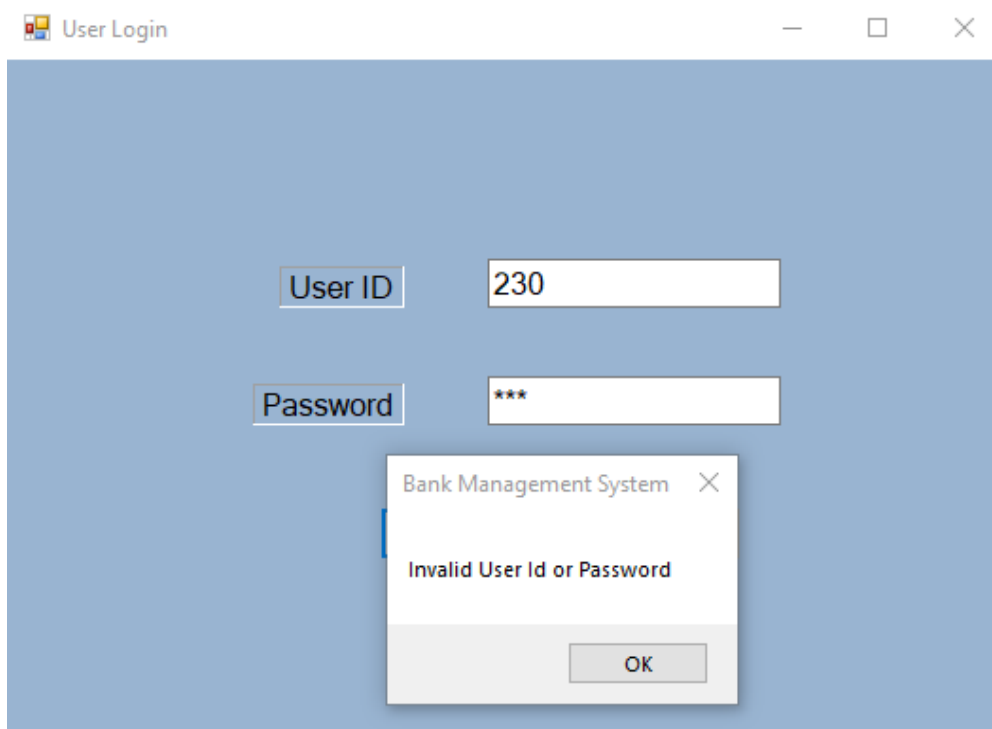
This is the Home Page of the Bank Management System which consists of group box, label and three login buttons. From these three, the person who has to login should select his/her session.

User- Login Page:



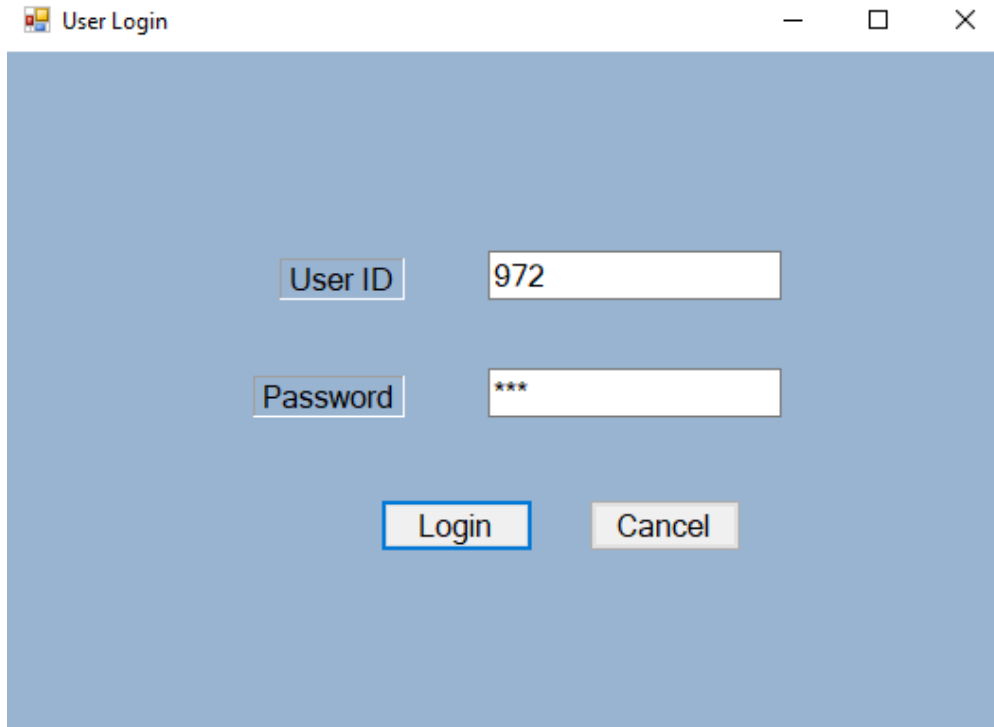
A screenshot of a 'User Login' window. The window has a blue background and a title bar with the text 'User Login' and standard window controls (minimize, maximize, close). The main area contains two text input fields. The first field is labeled 'User ID' and is empty. The second field is labeled 'Password' and is also empty. Below these fields are two buttons: 'Login' and 'Cancel'.

If the person chooses the user login, then it appears as the above. In this page there are two text boxes, one for user id and the other for password and two buttons are present below, one for login and the other for cancel. The user has to enter their correct user id and password in the provided text box, then click the login button to enter into his/her user page.



A screenshot of the 'User Login' window with the 'User ID' field containing the text '230' and the 'Password' field containing three asterisks '***'. Below the login fields, a small error dialog box is displayed. The dialog box has a title bar that says 'Bank Management System' and a close button. The main text of the dialog box reads 'Invalid User Id or Password'. At the bottom of the dialog box is an 'OK' button.

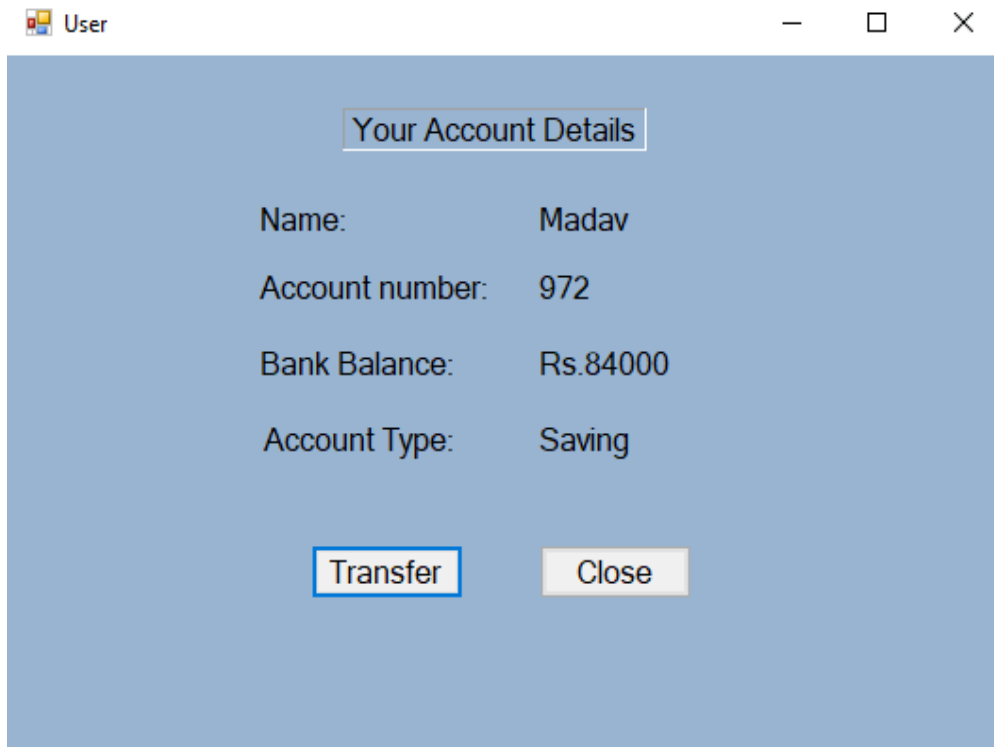
If the user provides the wrong user id or password, it will not allow to enter into his/her account.



A screenshot of a 'User Login' window. The window has a blue background and a title bar with the text 'User Login'. It contains two input fields: 'User ID' with the value '972' and 'Password' with the value '***'. Below the input fields are two buttons: 'Login' and 'Cancel'.

If the user provides the correct user id and password, it allows to enter into his/her account.

User- Main Page:

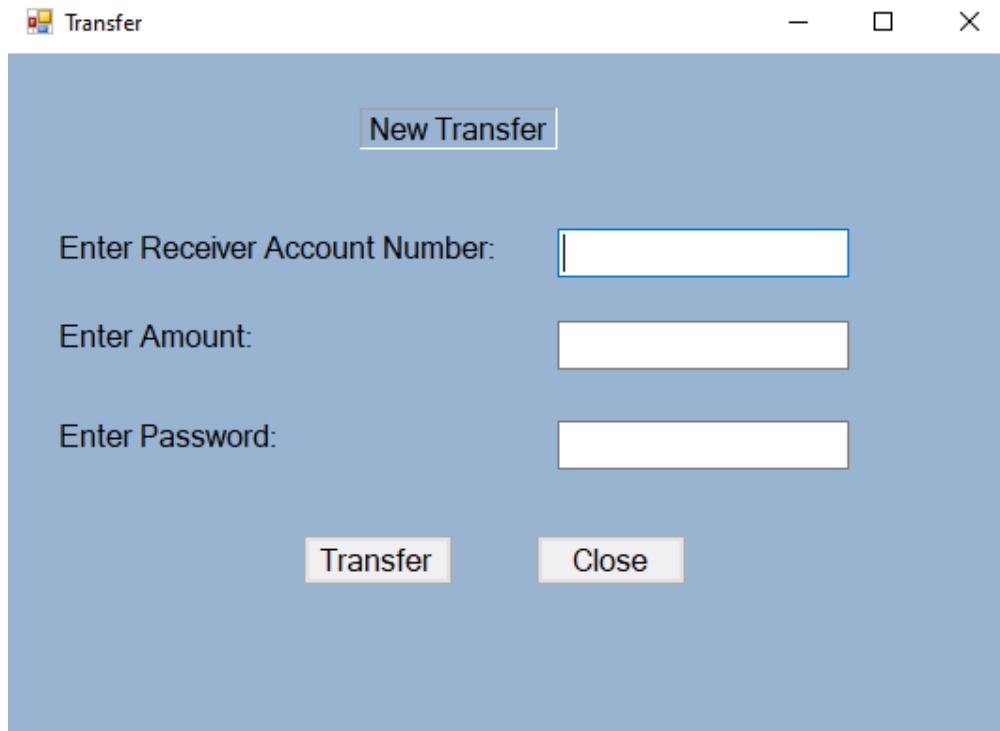


A screenshot of a 'User' window. The window has a blue background and a title bar with the text 'User'. It displays 'Your Account Details' in a table format. The details are: Name: Madav, Account number: 972, Bank Balance: Rs.84000, and Account Type: Saving. Below the table are two buttons: 'Transfer' and 'Close'.

Your Account Details	
Name:	Madav
Account number:	972
Bank Balance:	Rs.84000
Account Type:	Saving

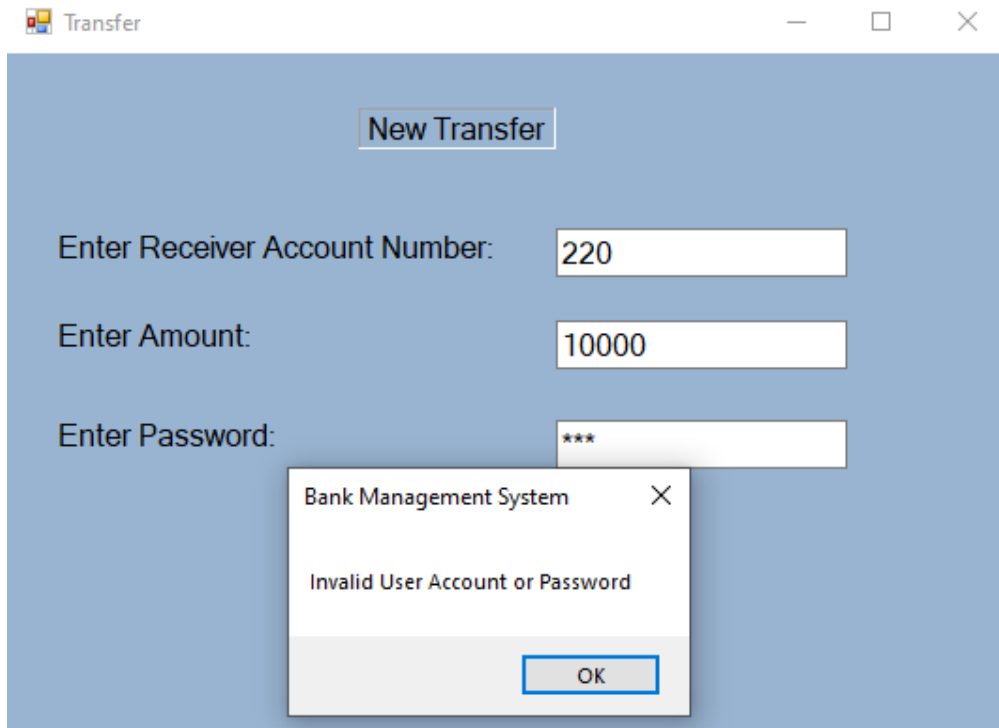
This is the user main page where the user's account details will be displayed. It consists of labels and buttons. There are two buttons, one for fund transfer and the other for close. If the user wants to transfer the fund from his/her account to other user's account, he/she has to click the transfer button.

Fund Transfer Page:

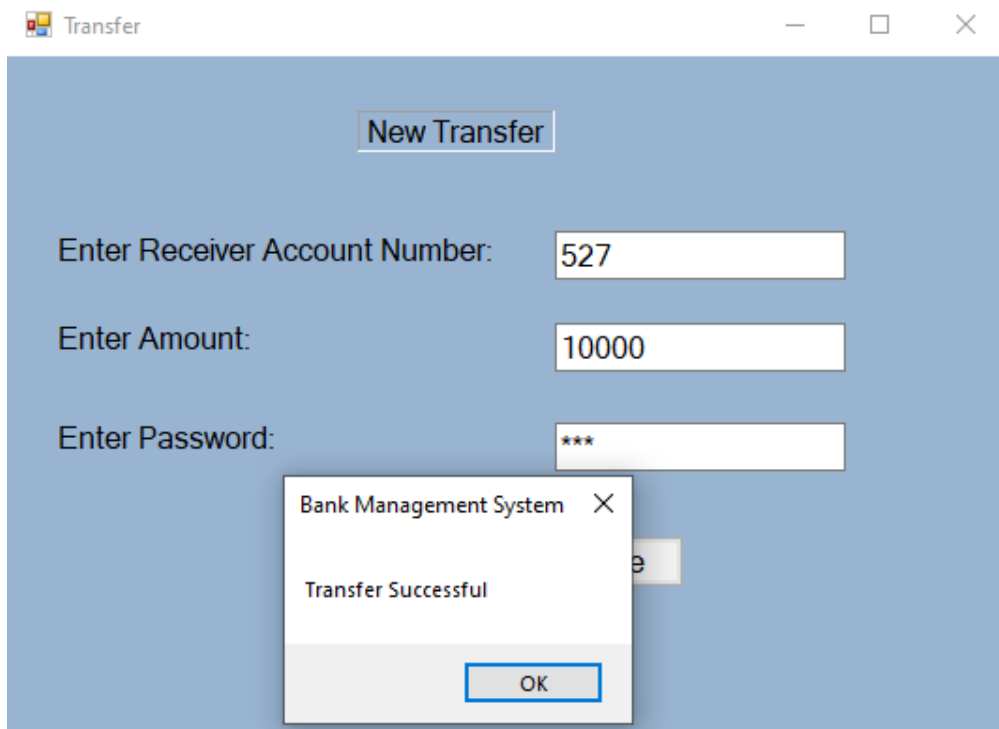


The screenshot shows a window titled "Transfer" with standard Windows window controls (minimize, maximize, close). The window has a blue background. At the top center, there is a button labeled "New Transfer". Below this, there are three text input fields, each preceded by a label: "Enter Receiver Account Number:", "Enter Amount:", and "Enter Password:". At the bottom of the window, there are two buttons: "Transfer" and "Close".

In this page there are two buttons for transfer and close and three text boxes where the user has to provide the receiver's account number, the amount to be transferred and the user's account password for confirmation, then click the transfer button to transfer the amount.

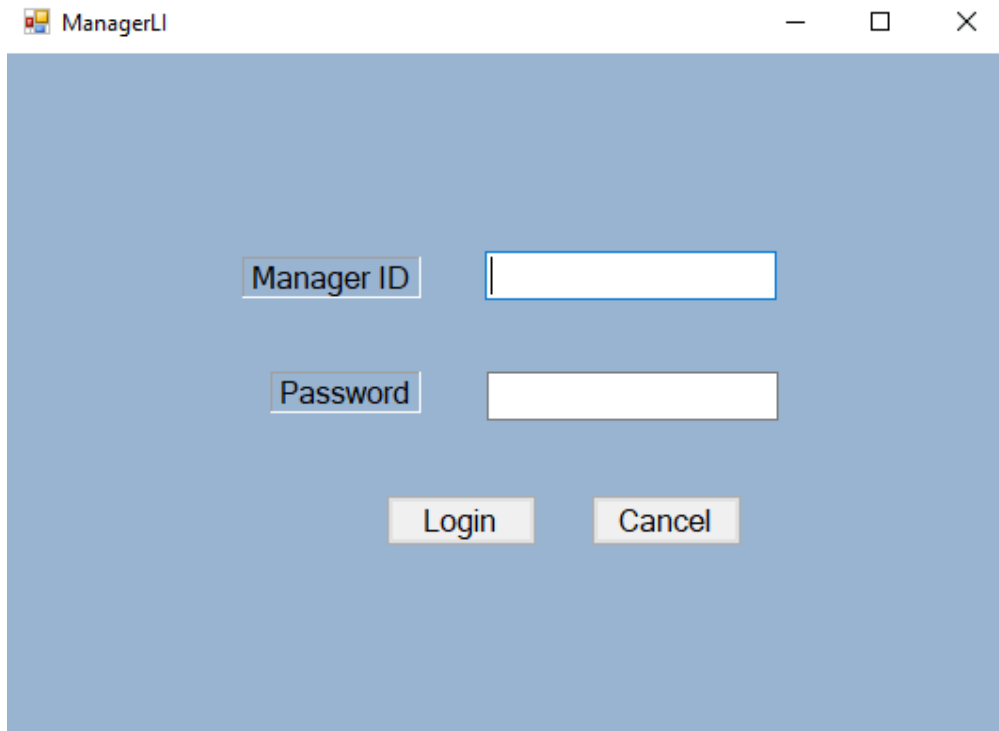


If the provided account number or password is incorrect, it will prompt that the given account number or password is invalid.



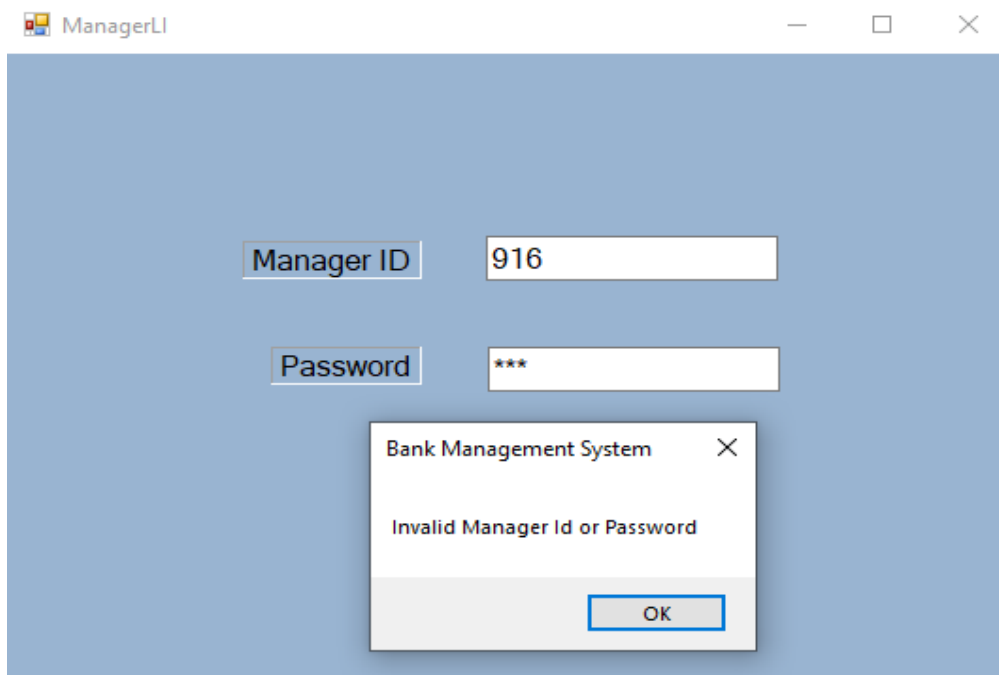
If the provided account number and password is correct, the fund will be successfully transferred to the receiver's account.

Manager- Login Page:



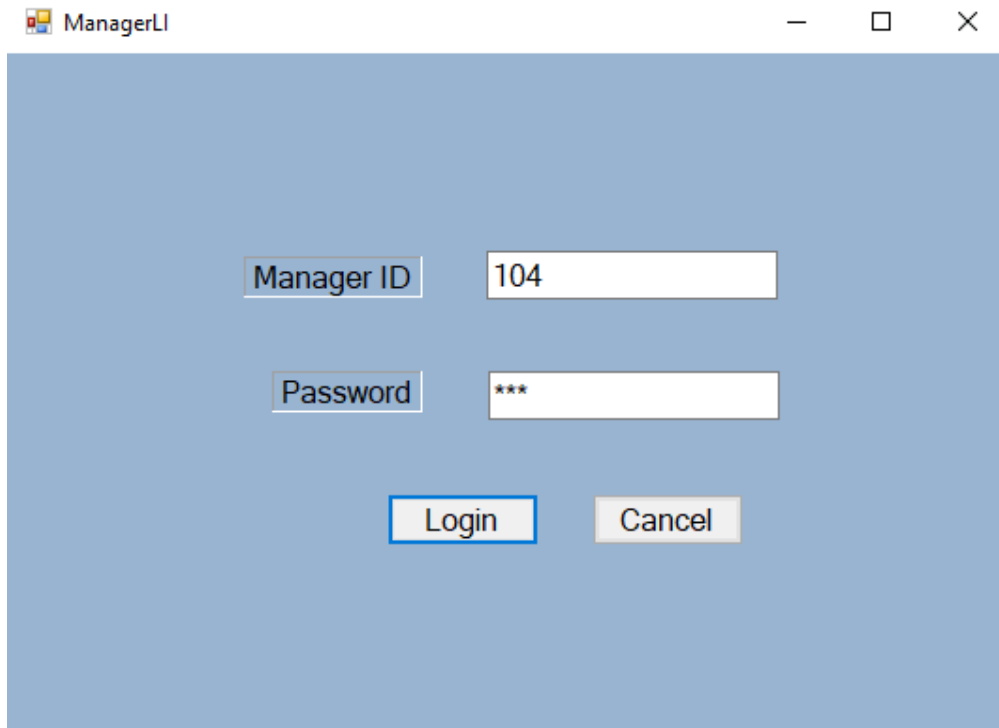
A screenshot of a Windows application window titled "ManagerLI". The window has a blue background and contains two text input fields. The first field is labeled "Manager ID" and is empty. The second field is labeled "Password" and is also empty. Below these fields are two buttons: "Login" and "Cancel".

If the person chooses the manager login, then it appears as the above. In this page there are two text boxes, one for manager id and the other for password and two buttons are present below, one for login and the other for cancel. The manager has to enter their correct manager id and password in the provided text box, then click the login button to enter into his/her manager page.



A screenshot of the "ManagerLI" application window. The "Manager ID" field contains the text "916" and the "Password" field contains three asterisks "***". A modal dialog box is displayed in the foreground. The dialog box is titled "Bank Management System" and contains the message "Invalid Manager Id or Password". At the bottom of the dialog box is an "OK" button.

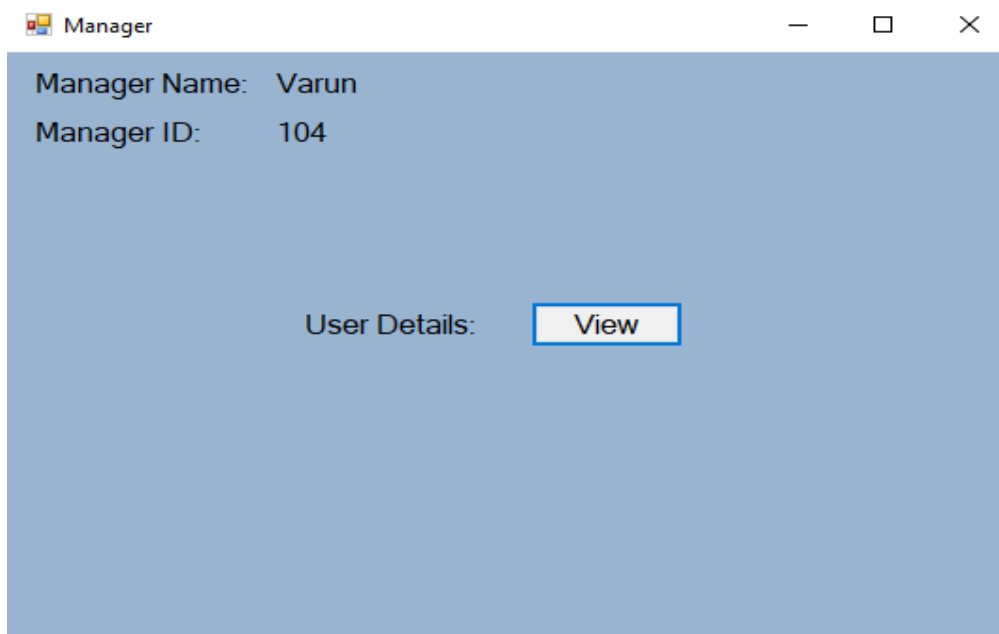
If the manager provides the wrong manager id or password, it will not allow to enter into his/her page.



A screenshot of a Windows application window titled "ManagerLI". The window has a light blue background. In the center, there are two input fields. The first is labeled "Manager ID" and contains the text "104". The second is labeled "Password" and contains three asterisks "***". Below these fields are two buttons: "Login" and "Cancel". The "Login" button is highlighted with a blue border.

If the manager provides the correct manager id and password, it allows to enter into his/her page.

Manager- Main Page:



A screenshot of a Windows application window titled "Manager". The window has a light blue background. At the top left, it displays "Manager Name: Varun" and "Manager ID: 104". In the center, there is a label "User Details:" followed by a "View" button. The "View" button is highlighted with a blue border.

This is the manager main page where the manager details will be displayed. It consists of labels and a view button. By clicking on the view button, the manager will be allowed to enter into the next page where the user details will be displayed.

View and Edit Page:

User Details

	Name	AccountNumber	BankBalance	AccountType
	Riya	123	Rs.40000	Current
	Isha	435	Rs.12000	Saving
	Sam	786	Rs.99000	Current
	Rishi	527	Rs.50000	Current
	Madav	972	Rs.84000	Saving
▶*				

Name: Add

Account Number: Delete

Balance: Save

Account Type: Close

This is the page where the manager can view user details and edit. It consists of the labels, text boxes and four buttons- Add, Delete, Save, Close.

User Details

	Name	AccountNumber	BankBalance	AccountType
	Isha	435	Rs.12000	Saving
	Sam	786	Rs.99000	Current
	Rishi	527	Rs.50000	Current
	Madav	972	Rs.84000	Saving
▶				

Name: Add

Account Number: Delete

Balance: Save

Account Type: Close

User Details

	Name	AccountNumber	BankBalance	AccountType	^
	Sam	786	Rs.99000	Current	
	Rishi	527	Rs.50000	Current	
	Madav	972	Rs.84000	Saving	
	Zara	713	Rs. 20000	Current	
▶					▼

Name:

Add

Account Number:

Delete

Balance:

Save

Account Type:

Close

User Details

	Name	AccountNumber	BankBalance	AccountType	^
	Sam	786	Rs.99000	Current	
	Rishi	527	Rs.50000	Current	
	Madav	972	Rs.84000	Saving	
	Zara	713	Rs. 20000	Current	
▶					▼

Name:

Add

Account Number:

Delete

Balance:

Save

Account Type:

Close

User Details

	Name	AccountNumber	BankBalance	Account Type
	Rishi	527	Rs.50000	Current
	Madav	972	Rs.84000	Saving
	Zara	713	Rs. 20000	Current
	Diya	110	Rs. 16000	Saving
▶				

Name: Add

Account Number: Delete

Balance: Save

Account Type: Close

To add an account, the manager has to provide the user's name, account number, balance and account type in the given text box and then click the add button. The account will be added into the database successfully.

User Details

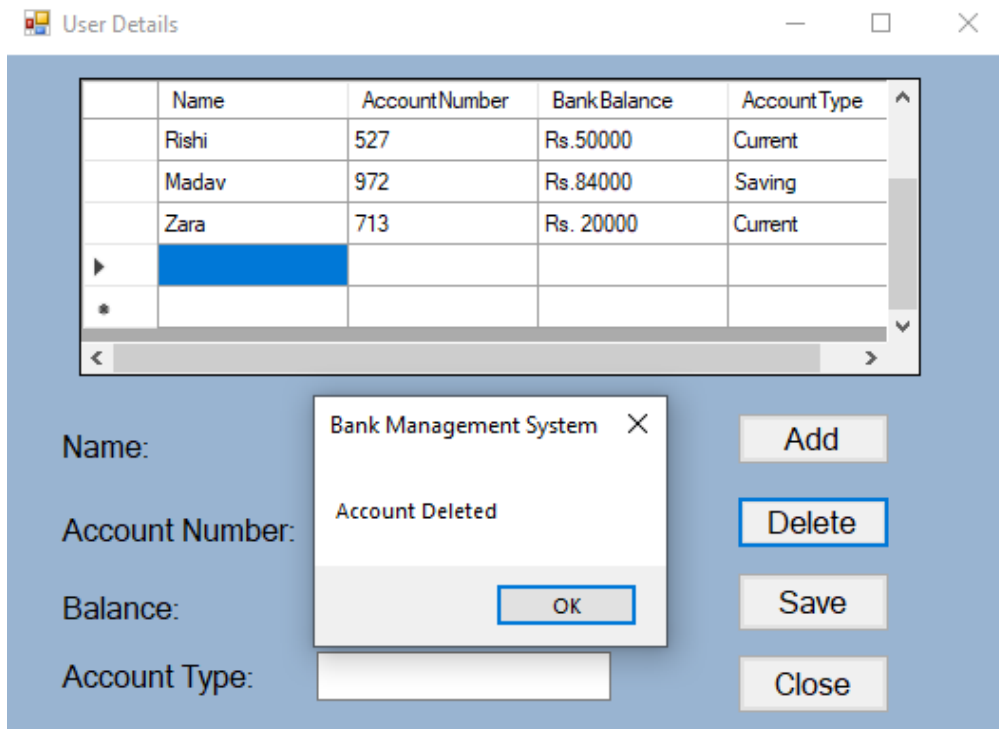
	Name	AccountNumber	BankBalance	AccountType
	Rishi	527	Rs.50000	Current
	Madav	972	Rs.84000	Saving
	Zara	713	Rs. 20000	Current
▶	Diya	110	Rs. 16000	Saving

Name: Add

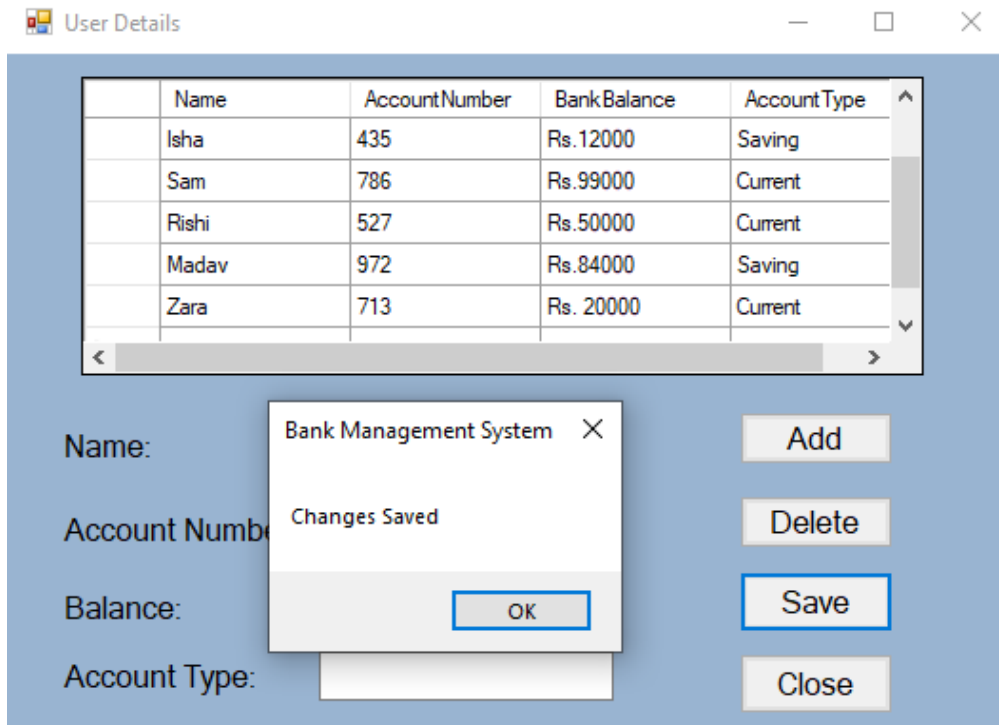
Account Number: Delete

Balance: Save

Account Type: Close

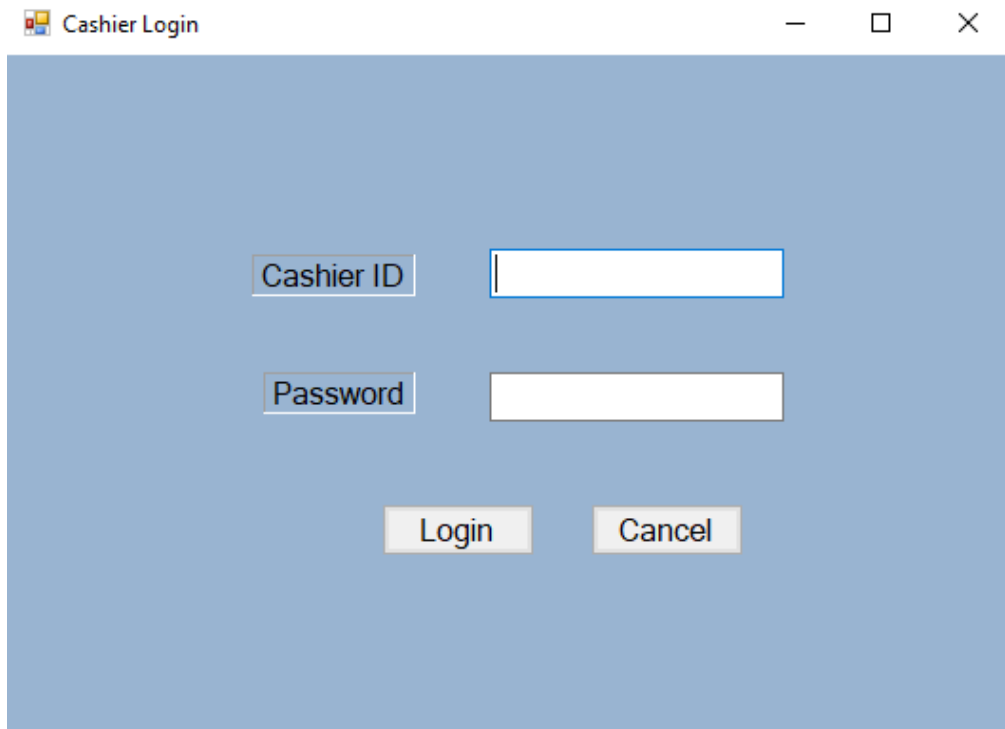


To delete an account, the manager has to select the account to be deleted and then click the delete button. The selected account will be deleted successfully from the database.



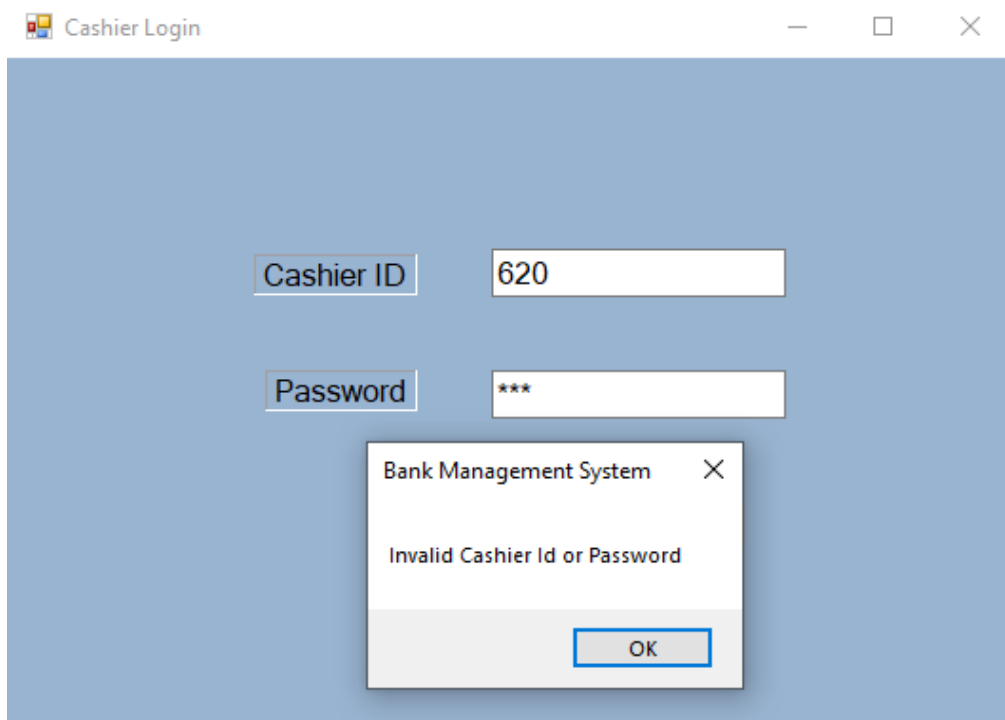
To save the changes, the manager has to click the save button. The changes will be saved successfully in the database.

Cashier- Login Page:



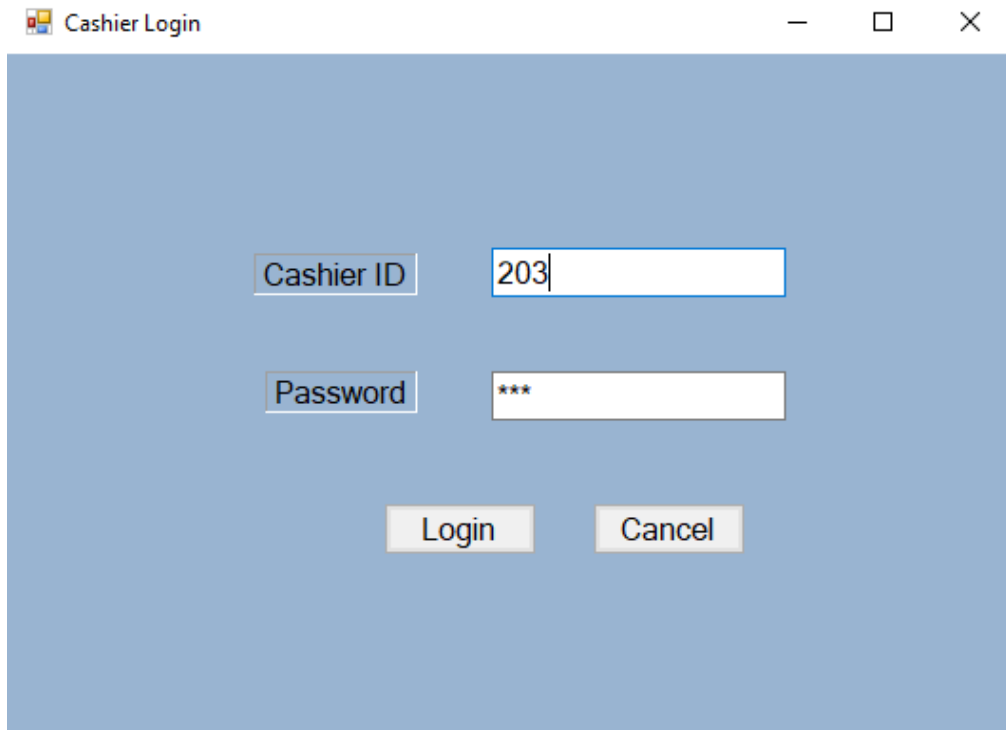
A screenshot of a Windows application window titled "Cashier Login". The window has a light blue background. It contains two text input fields: the first is labeled "Cashier ID" and the second is labeled "Password". Below these fields are two buttons: "Login" and "Cancel". The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

If the person chooses the cashier login, then it appears as the above. In this page there are two text boxes, one for cashier id and the other for password and two buttons are present below, one for login and the other for cancel. The cashier has to enter their correct cashier id and password in the provided text box, then click the login button to enter into his/her cashier page.



A screenshot of the "Cashier Login" window. The "Cashier ID" field contains the text "620" and the "Password" field contains three asterisks "***". Below the fields, a small error dialog box is displayed. The dialog box is titled "Bank Management System" and contains the message "Invalid Cashier Id or Password". It has an "OK" button at the bottom right. The background of the main window is light blue.

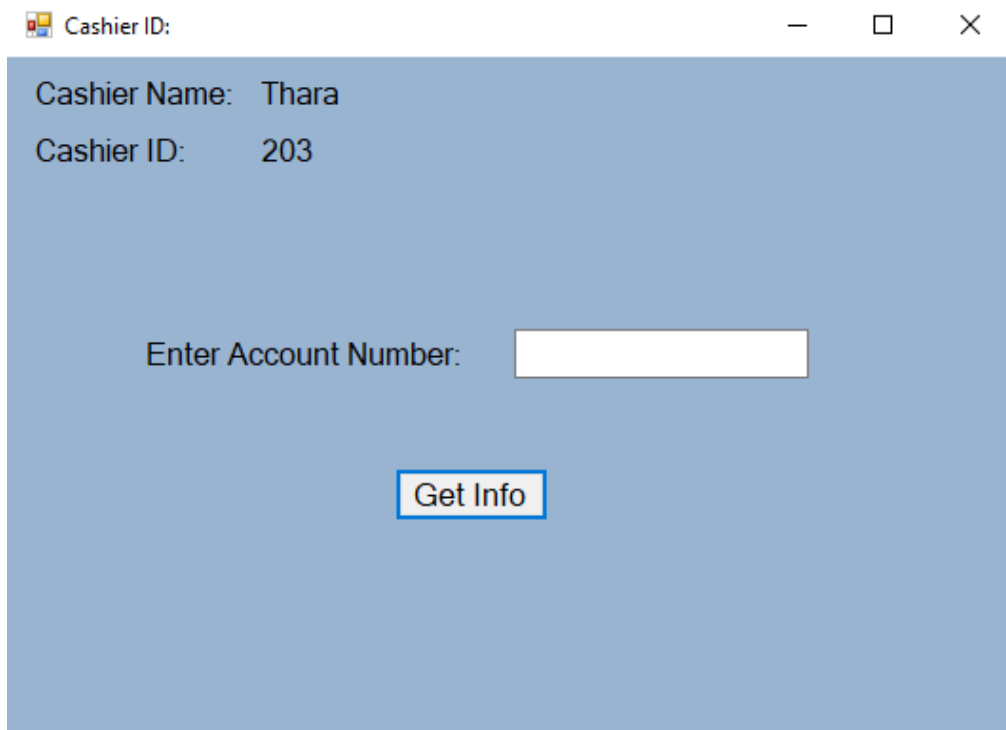
If the cashier provides the wrong cashier id or password, it will not allow to enter into his/her page.



The screenshot shows a window titled "Cashier Login" with a light blue background. It contains two input fields: "Cashier ID" with the value "203" and "Password" with three asterisks "***". Below these fields are two buttons: "Login" and "Cancel".

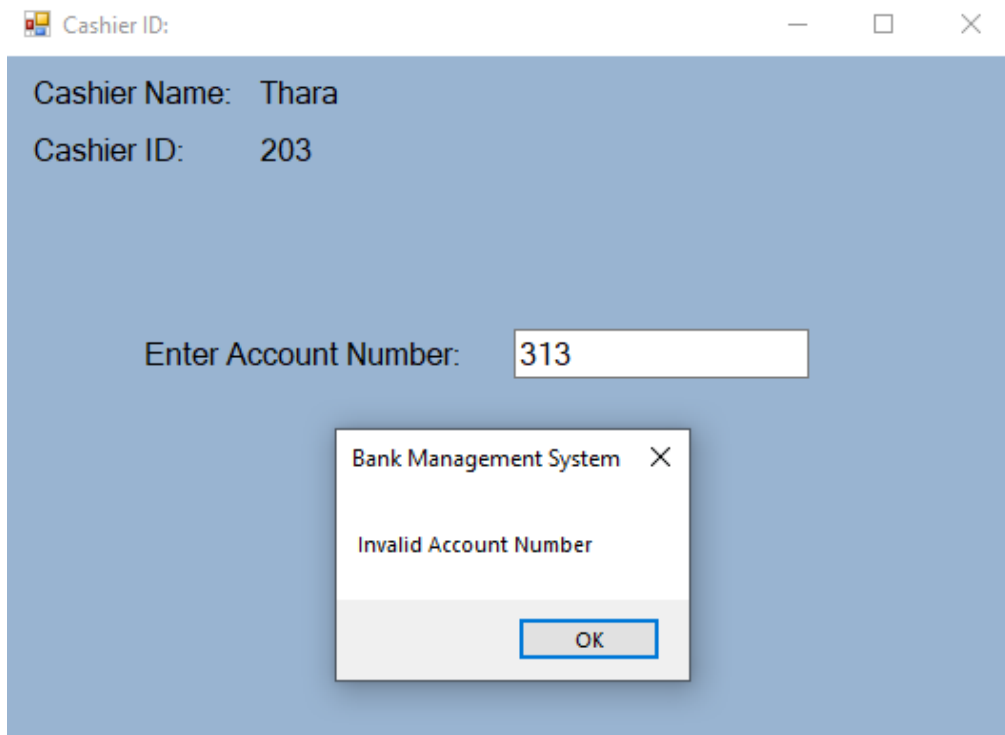
If the cashier provides the correct cashier id and password, it allows to enter into his/her page.

Cashier- Main Page:

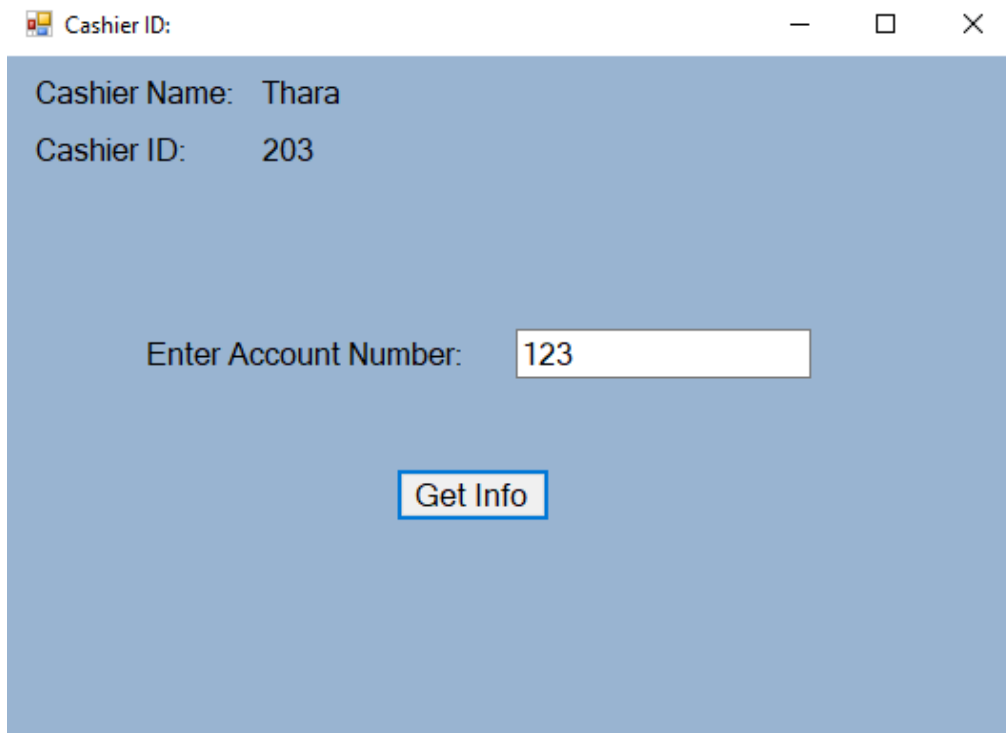


The screenshot shows a window titled "Cashier ID:" with a light blue background. It displays the cashier's details: "Cashier Name: Thara" and "Cashier ID: 203". Below this, there is a label "Enter Account Number:" followed by an empty text input field. At the bottom, there is a button labeled "Get Info".

This is the cashier main page where the cashier details will be displayed. It consists of labels, get info button and a textbox where the cashier has to provide the required user account number.

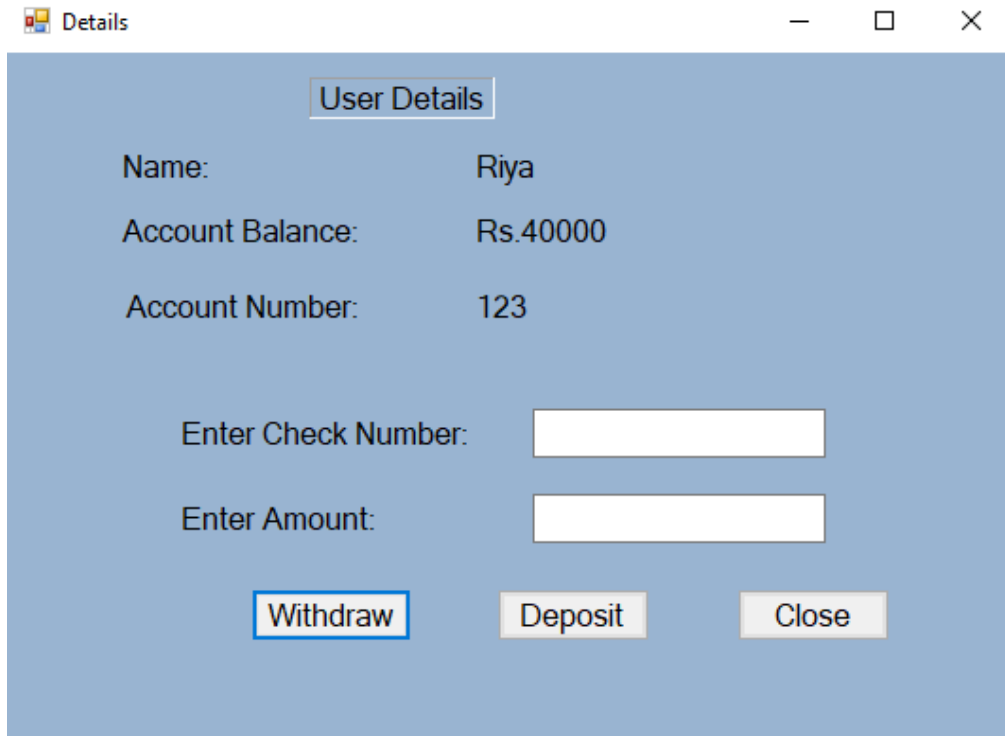


If the given account number is incorrect, it will prompt that the given account number is invalid.



After providing the correct account number, click the get info button present at the bottom. By clicking on the get info button, the cashier will be allowed to enter into the next page where the user details will be displayed.

Withdraw and Deposit Page:



The screenshot shows a window titled "Details" with a light blue background. At the top, there is a tab labeled "User Details". Below the tab, the following information is displayed:

Name:	Riya
Account Balance:	Rs.40000
Account Number:	123

Below the account details, there are two input fields:

Enter Check Number:

Enter Amount:

At the bottom, there are three buttons: "Withdraw" (highlighted with a blue border), "Deposit", and "Close".

This is the page where the cashier can view user details, withdraw and deposit the amount. It consists of the labels, text boxes and three buttons for withdraw, deposit and close.

Details

User Details

Name: Riya

Account Balance: Rs.40000

Account Number: 123

Enter Check Number: 9131620

Enter Amount: 10000

Withdraw Deposit Close

Details

User Details

Name: Riya

Account Balance: Rs. 30000

Account Number: 123

Bank Management System X

Withdraw Successful

OK

9131620

10000

Withdraw Deposit Close

To withdraw the amount from the account, the cashier has to provide the check number and the amount to be withdraw in the given text box and then click the withdraw button. The amount will be withdrawn successfully from the account and will also display the balance amount in the user details.

Details

User Details

Name: Riya

Account Balance: Rs. 30000

Account Number: 123

Enter Check Number: 5212369

Enter Amount: 20000

Withdraw Deposit Close

Details

User Details

Name: Riya

Account Balance: Rs. 50000

Account Number: 123

Bank Management System X

Deposit Successful

OK

5212369

20000

Withdraw Deposit Close

To deposit the amount into the account, the cashier has to provide the check number and the amount to be deposited in the given text box and then click the deposit button. The amount will be deposited successfully into the account and will also display the balance amount in the user details.

Result:

The Project “Bank Management System” has been completed successfully.

Team Members:

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