

User Manual

I. Introduction

This user manual guides staff (Cashiers and Managers) to efficiently operate the SweetCupcake System. The system runs in a real-world bakery environment, so non-technical employees can navigate it easily. It is built using Java Swing (NetBeans) and is fully interactive, user-friendly, and responsive.

II. System Requirements

- **Software:** Windows OS, Java Runtime Environment (JRE), MS Access
- **Hardware:** Minimum 4GB RAM, 2GHz processor
- **Database:** sweetcupcake.accdb (MS Access file)

III. Launching the System

1. Open the project in NetBeans IDE and click Run Project, or run the compiled .jar file.
2. The Login Screen appears.

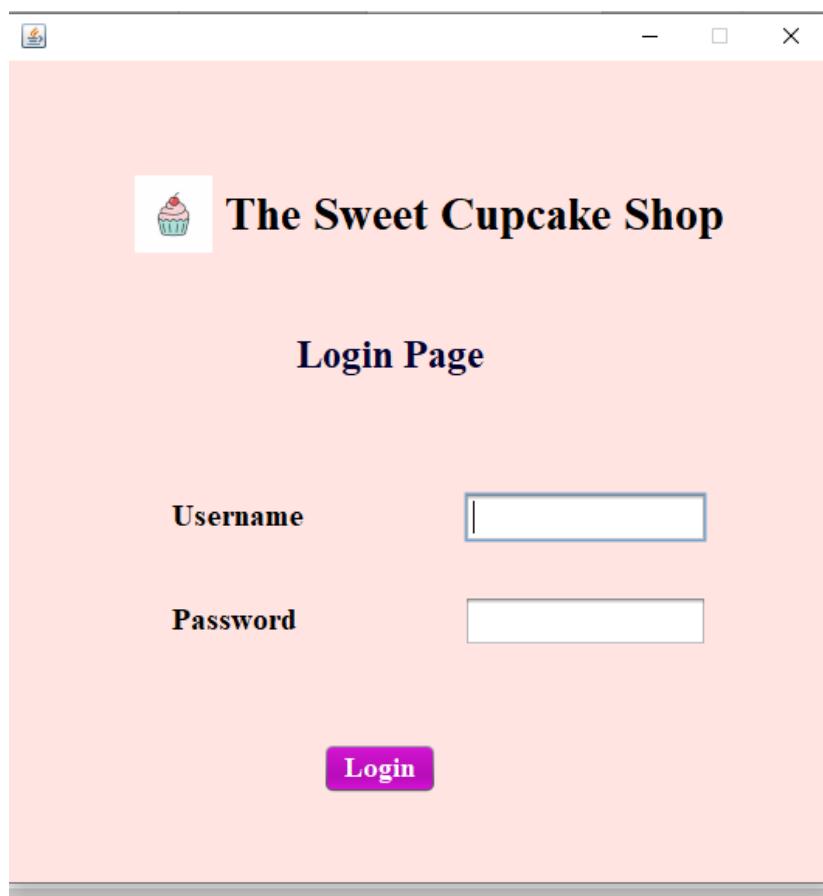


Figure 1: Login Screen

IV. Login Process

- **Username:** Enter your registered username.
- **Password:** Enter your password.
- **Login:** Click the button to enter.

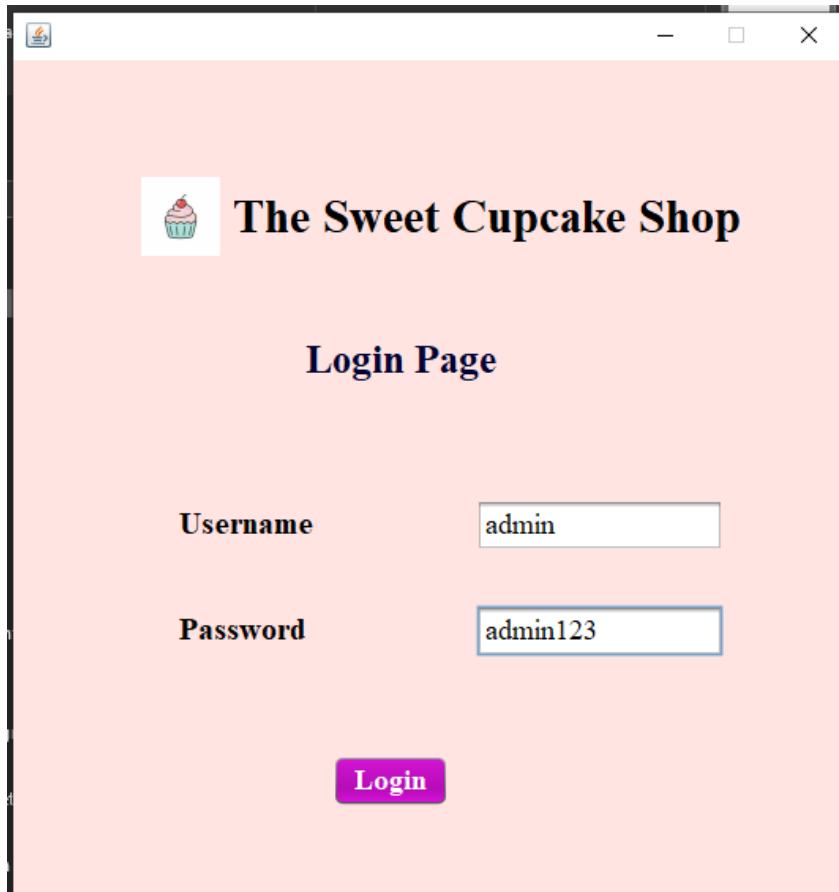


Figure 2:Enter Credentials

Example accounts:

- **Manager:** username = admin, password = admin123
- **Cashier:** username = Cashier1, password = cashier1

The system automatically records login information including user ID, role, and timestamp, for auditing purposes. When the correct login details are entered, the system will open either the Manager Dashboard or the Cashier Dashboard, depending on the user's role.

Error Handling: If incorrect, the system displays: "Invalid username or password."

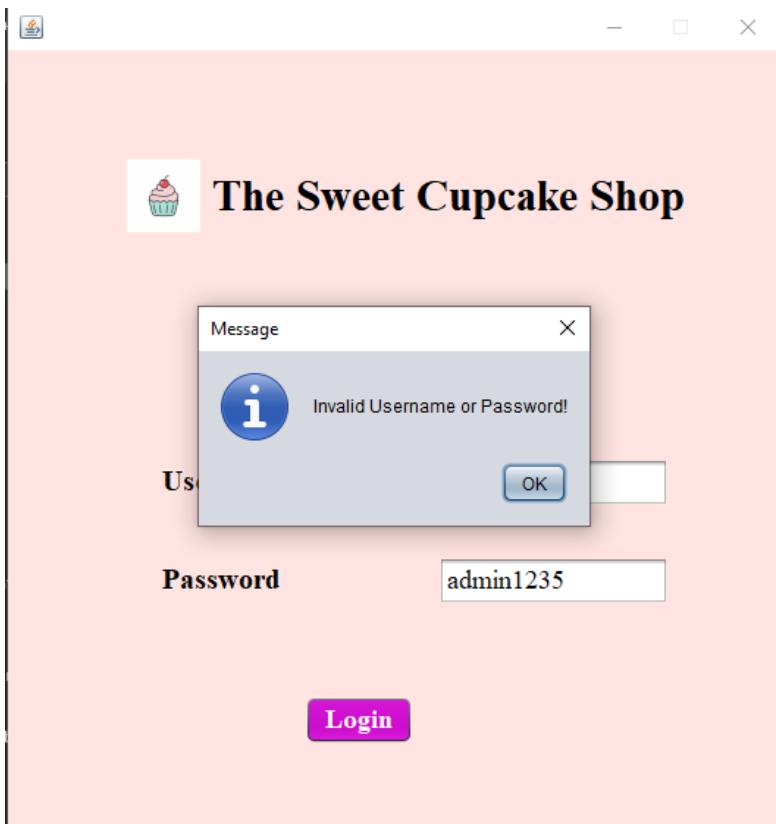


Figure 3: Incorrect Credentials

V. Cashier Functions

After logging in as a Cashier, the system opens the Cashier Dashboard.

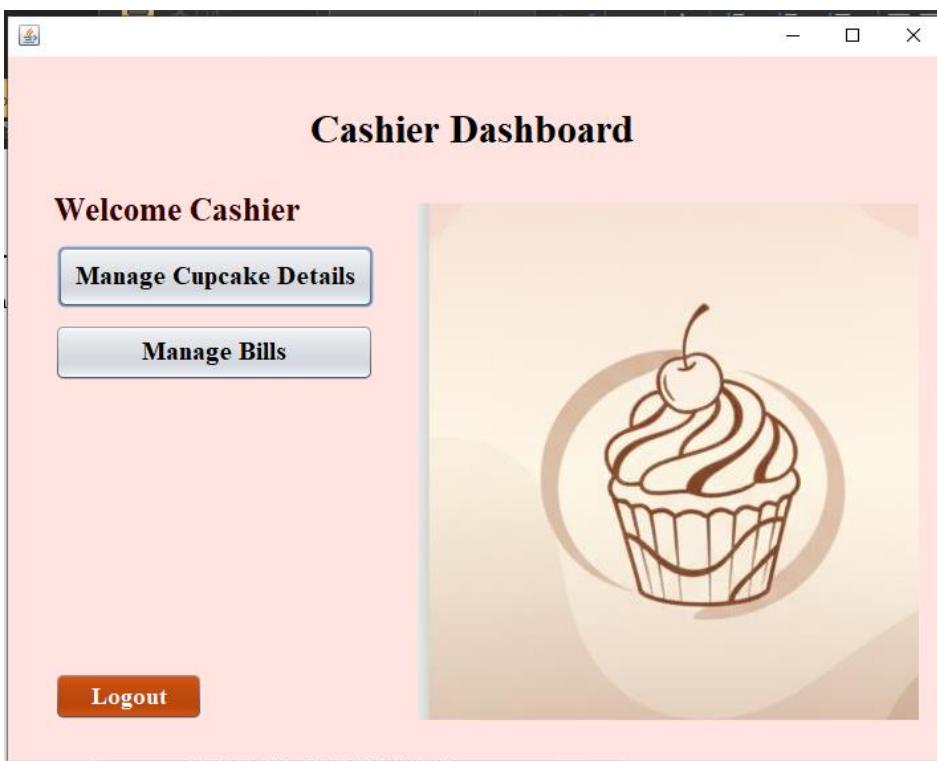


Figure 4: Cashier dashboard

Available Features for Cashier

- 1. View Cupcakes:** Displays all cupcakes stored in the database.

The screenshot shows a window titled "Manage Cupcake Details". At the top, there is a table with columns: Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status. Below the table are four buttons: ADD, UPDATE, DELETE, and SEARCH. In the bottom left corner, there is a "Back" button.

Cupcake ID	Cupcake Name	Category	Price	Quantity	Status
1	Vanilla Bliss	Classic	120.0	40	Available
2	Choco Lava Burst	Classic	150.0	27	Available
3	Red Velvet Charm	Seasonal	180.0	20	Available
4	Mango Fiesta	Seasonal	250.0	8	Available
5	Blueberry Heaven	Fruity Delight	160.0	17	Available
6	Wedding White	Custom Order	250.0	8	Available
7	Choco Chip Crunch	Classic	140.0	35	Available
8	Gluten-Free Delight	Gluten-Free	200.0	10	Available
9	Strawberry Dream	Fruity Delight	165.0	18	Available
10	Pumpkin Spice Magic	Seasonal	190.0	10	Available

Figure 5:View Cupcakes

- 2. Add New Cupcake:** Cashier can add cupcake details – name, category, price, and quantity.

The screenshot shows the same "Manage Cupcake Details" window as Figure 5, but with a form overlaid at the bottom. The form has fields for Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status. Below the form is a "Confirm" button. In the bottom left corner, there is a "Back" button.

Cupcake ID	Cupcake Name	Category	Price	Quantity	Status
1	Vanilla Bliss	Classic	120.0	40	Available
2	Choco Lava Burst	Classic	150.0	27	Available
3	Red Velvet Charm	Seasonal	180.0	20	Available
4	Mango Fiesta	Seasonal	250.0	8	Available
5	Blueberry Heaven	Fruity Delight	160.0	17	Available
6	Wedding White	Custom Order	250.0	8	Available
7	Choco Chip Crunch	Classic	140.0	35	Available
8	Gluten-Free Delight	Gluten-Free	200.0	10	Available
9	Strawberry Dream	Fruity Delight	165.0	18	Available
10	Pumpkin Spice Magic	Seasonal	190.0	10	Available

Figure 6:Add New Cupcake function

3. Search Cupcakes: Search by cupcake category.

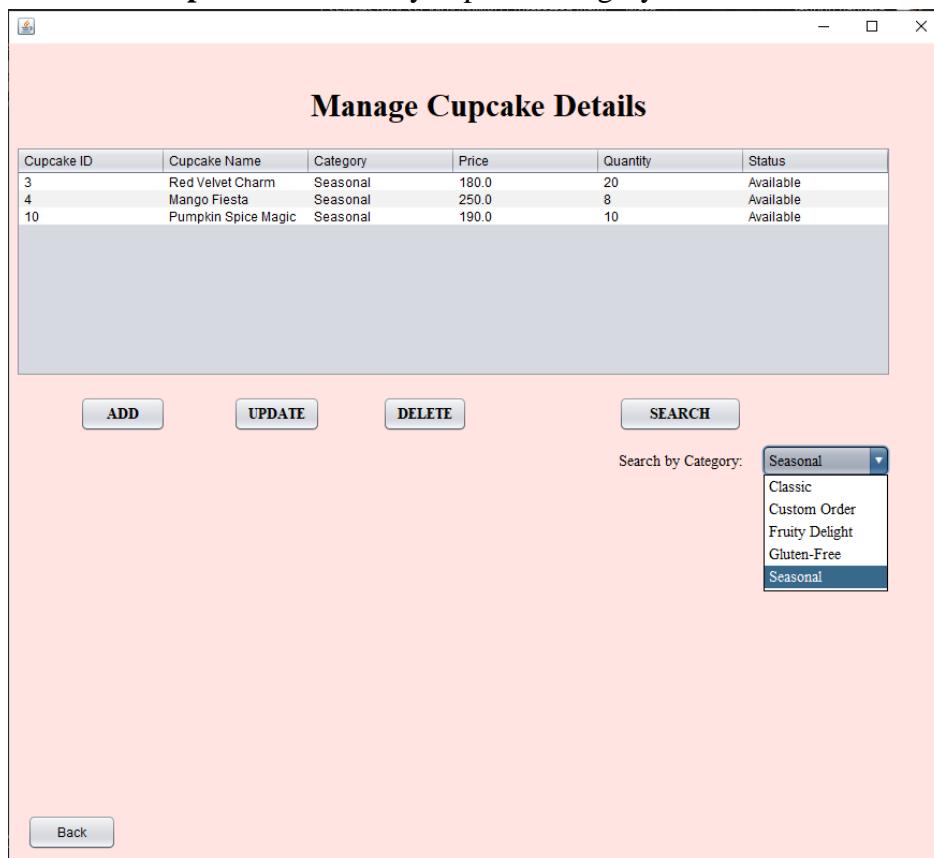
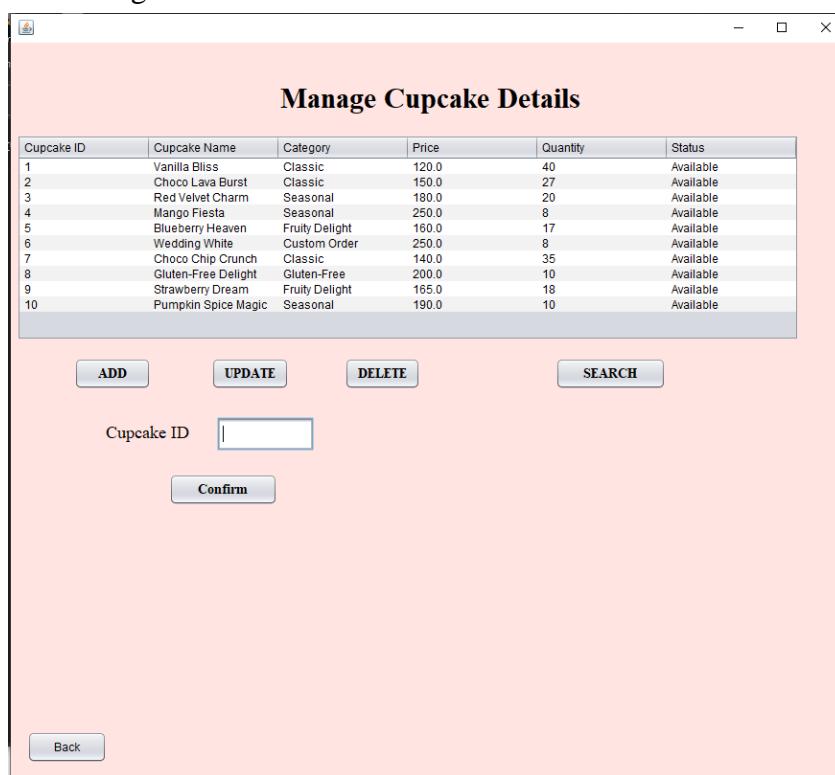


Figure 7:Search cupcakes by Category

4. Delete Cupcake: Remove cupcake from the database by entering Cupcake id and clicking Confirm.



5. **Update Cupcake:** Enables the Cashier to modify existing cupcake details, including name, category, price, status, and quantity.

The screenshot shows a Windows application window titled "Manage Cupcake Details". At the top is a table with columns: Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status. Below the table are six input fields: Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status, each with a corresponding text input box. At the bottom are four buttons: ADD, UPDATE, DELETE, and SEARCH. A "Confirm" button is located below the input fields, and a "Back" button is at the bottom left.

Cupcake ID	Cupcake Name	Category	Price	Quantity	Status
1	Vanilla Bliss	Classic	120.0	40	Available
2	Choco Lava Burst	Classic	150.0	27	Available
3	Red Velvet Charm	Seasonal	180.0	20	Available
4	Mango Fiesta	Seasonal	250.0	8	Available
5	Blueberry Heaven	Fruity Delight	160.0	17	Available
6	Wedding White	Custom Order	250.0	8	Available
7	Choco Chip Crunch	Classic	140.0	35	Available
8	Gluten-Free Delight	Gluten-Free	200.0	10	Available
9	Strawberry Dream	Fruity Delight	165.0	18	Available
10	Pumpkin Spice Magic	Seasonal	190.0	10	Available

Figure 8:Update Cupcake Function

6. **Enter a Sale:** Select a cupcake by entering its Cupcake ID. Once the id is entered, all relevant details such as name, category, and price are automatically populated from the database. The Cashier only needs to input the quantity, and the system calculates the total amount and generates the bill instantly. This automation ensures speed, accuracy, and minimizes manual errors.

The screenshot shows a Windows application window titled "Transaction Management". At the top is a table with columns: Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status. Below the table are two sections: "New Bill" and "View Transaction History". In the "New Bill" section, there is a "Enter a Sale" button, a "Cupcake ID" input field containing "5", a "Cupcake Name" input field containing "Blueberry Heaven", a "Category" input field containing "Fruity Delight", a "Unit Price" input field containing "160.00", and a "Quantity" input field containing "6". Below these fields are "Total" and "LKR 960.00" labels, and "Confirm Sale" and "Back" buttons. The "View Transaction History" button is located to the left of the "New Bill" section.

Cupcake ID	Cupcake Name	Category	Price	Quantity	Status
1	Vanilla Bliss	Classic	120.0	40	Available
2	Choco Lava Burst	Classic	150.0	27	Available
3	Red Velvet Charm	Seasonal	180.0	20	Available
4	Mango Fiesta	Seasonal	250.0	8	Available
5	Blueberry Heaven	Fruity Delight	160.0	17	Available
6	Wedding White	Custom Order	250.0	8	Available
7	Choco Chip Crunch	Classic	140.0	35	Available
8	Gluten-Free Delight	Gluten-Free	200.0	10	Available
9	Strawberry Dream	Fruity Delight	165.0	18	Available
10	Pumpkin Spice Ma...	Seasonal	190.0	10	Available

Figure 9:Enter a Sale

7. **View Bill History:** Allows the Cashier to review past sales and transactions stored in the system.

The screenshot shows a window titled "Transaction History". It contains a table with the following columns: Bill_ID, Cupcake_ID, Quantity, Unit_Price, Total_Price, Date, and Cupcake_Name. The data in the table is as follows:

Bill_ID	Cupcake_ID	Quantity	Unit_Price	Total_Price	Date	Cupcake_Name
1	5	3	160.0000	480.0000	2025-10-20 17:28:46.858	Blueberry Heaven
2	9	5	165.0000	825.0000	2025-10-20 22:24:36.914	Strawberry Dream
3	5	3	160.0000	480.0000	2025-10-20 22:30:28.794	Blueberry Heaven
4	5	4	160.0000	640.0000	2025-10-20 22:39:26.417	Blueberry Heaven
5	5	55	160.0000	8800.0000	2025-10-23 19:40:32.18	Blueberry Heaven
6	5	4	160.0000	640.0000	2025-10-28 01:47:27.952	Blueberry Heaven
7	6	1	250.0000	250.0000	2025-10-28 16:43:21.516	Wedding White
8	1	5	120.0000	600.0000	2025-10-28 17:11:39.895	Vanilla Bliss
9	2	3	150.0000	450.0000	2025-10-28 17:32:35.621	Choco Lava Burst
10	5	3	160.0000	480.0000	2025-10-28 18:20:50.985	Blueberry Heaven
11	5	5	160.0000	800.0000	2025-10-29 09:59:59.398	Blueberry Heaven

At the bottom left of the window is a "Back" button.

Figure 10: Bill History Function

VI. Manager Functions

When logged in as Manager, the ManagerForm opens. Managers have all Cashier functions plus additional privileges:

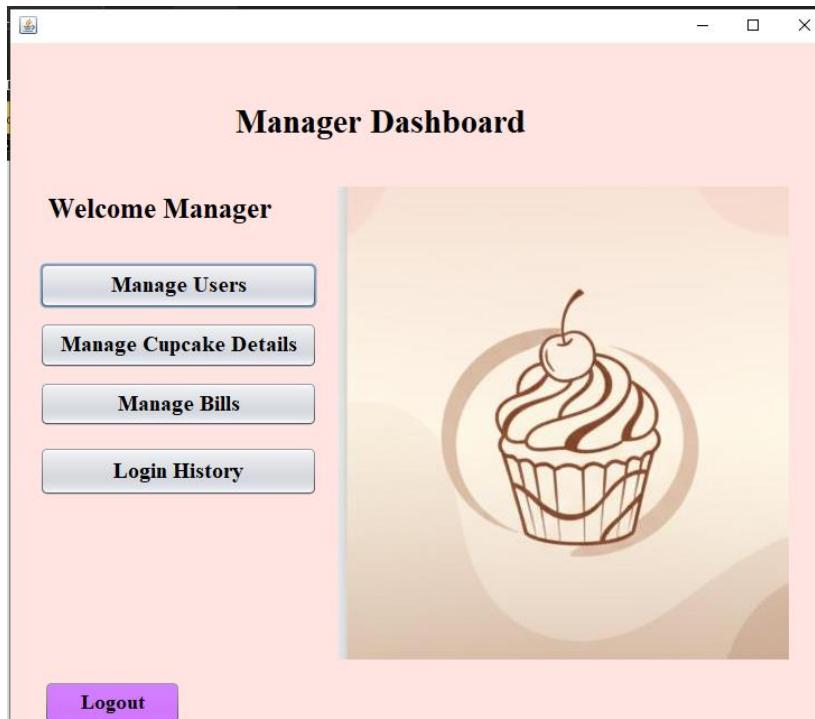


Figure 11: Manager Dashboard

- 1. Add Cashier Accounts:** Enter casheir details and press **confirm** to create a new cashier.

The screenshot shows a Windows application window titled "Add User Function". At the top, there is a menu bar with File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, and Window. Below the menu is a table with columns: User_ID, Full_Name, Contact, Role, Username, and Password. The table contains 5 rows of data. Below the table are three buttons: ADD, UPDATE, and DELETE. Underneath these buttons is a set of input fields for adding a new user, each labeled with a field name (User ID, Full Name, Contact, Role, Username, Password) followed by a text input box. At the bottom center is a "CONFIRM" button, and at the bottom left is a "Back" button.

User_ID	Full_Name	Contact	Role	Username	Password
1	John Smith	123-456-7890	Manager	admin	admin123
2	Alice Johnson	987-654-3210	Cashier	cashier1	cashier1
3	Bob Williams	555-123-4567	Cashier	cashier2	cashier21
4	Mary Brown	444-987-6543	Cashier	cashier3	cashier321
5	Deloosha	3643732	cashier	deloosha	1234

Buttons: ADD, UPDATE, DELETE, CONFIRM, Back

Figure 12:Add User Function

- 2. Update/Delete Users:** Modify or remove user accounts as required.

The screenshot shows a Windows application window titled "Update User Function". At the top, there is a menu bar with File, Edit, View, Navigate, Source, Refactor, Run, Debug, Profile, Team, Tools, and Window. Below the menu is a table with columns: User_ID, Full_Name, Contact, Role, Username, and Password. The table contains 5 rows of data. Below the table are three buttons: ADD, UPDATE, and DELETE. Underneath these buttons is a set of input fields for updating a user account, each labeled with a field name (User ID, Full Name, Contact, Role, Username, Password) followed by a text input box. At the bottom center is a "CONFIRM" button, and at the bottom left is a "Back" button.

User_ID	Full_Name	Contact	Role	Username	Password
1	John Smith	123-456-7890	Manager	admin	admin123
2	Alice Johnson	987-654-3210	Cashier	cashier1	cashier1
3	Bob Williams	555-123-4567	Cashier	cashier2	cashier21
4	Mary Brown	444-987-6543	Cashier	cashier3	cashier321
5	Deloosha	3643732	cashier	deloosha	1234

Buttons: ADD, UPDATE, DELETE, CONFIRM, Back

Figure 13:Update User Function

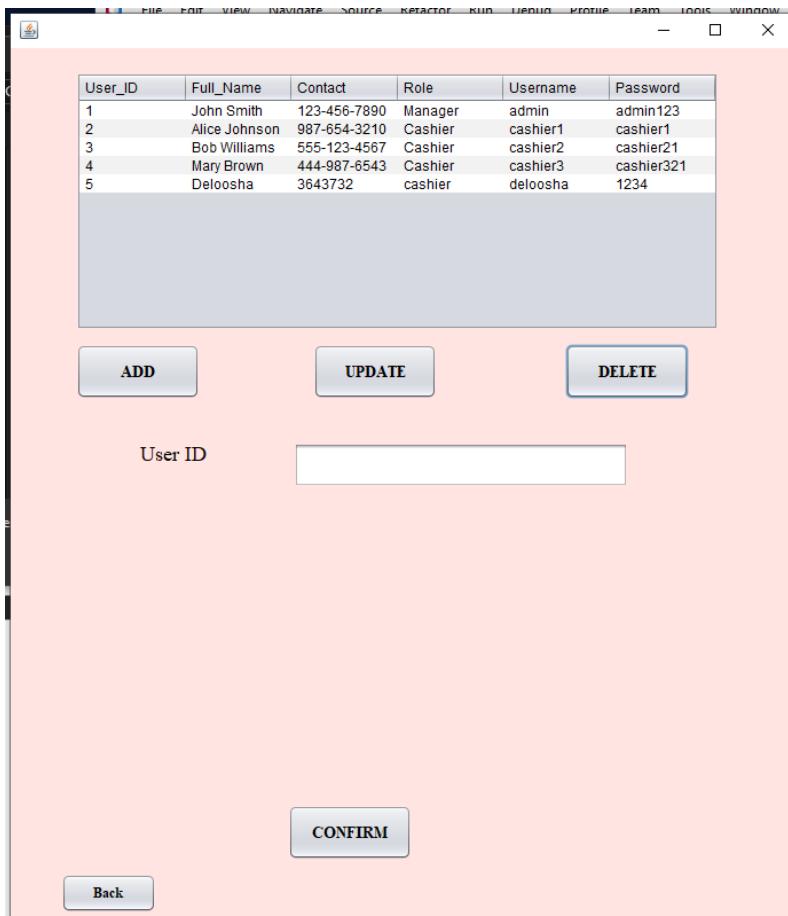


Figure 14:Delete User Function

3. **View Login History:** Monitor login records automatically captured by the system.

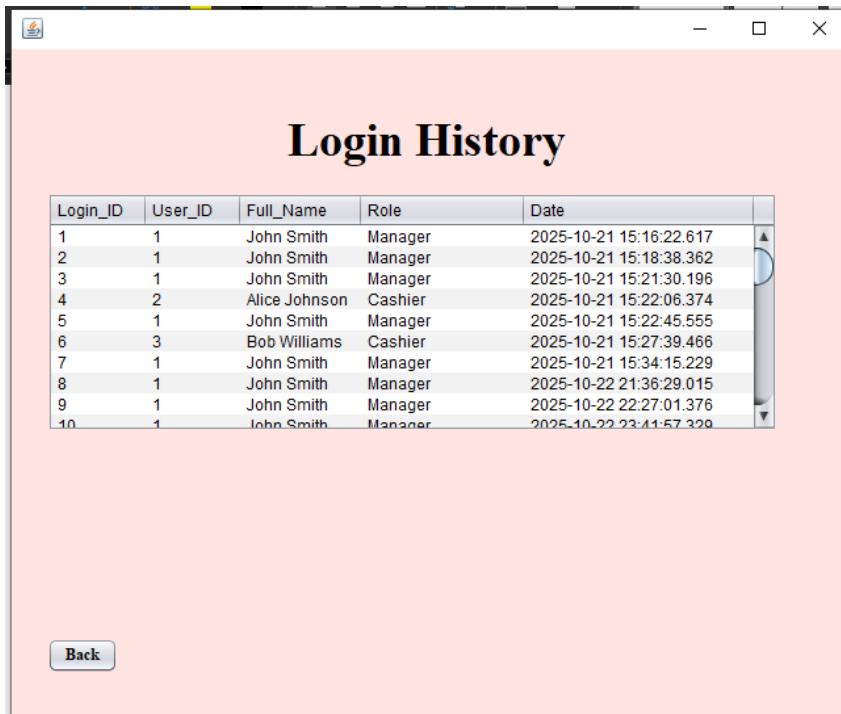


Figure 15:Login History Function

VII. Error Handling

- **Database connection failure:** “Error cannot connect to database.”

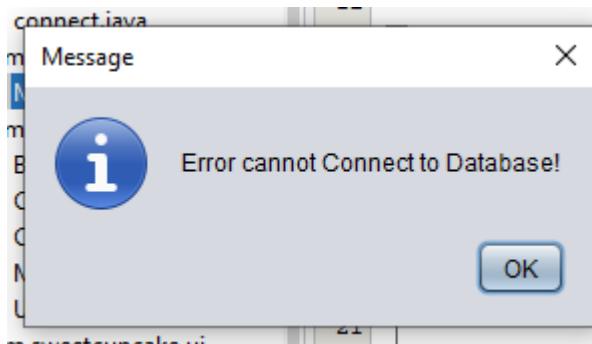


Figure 16: Database Connection Failure

- **Invalid input:** Text in numeric field shows “Please enter number.”

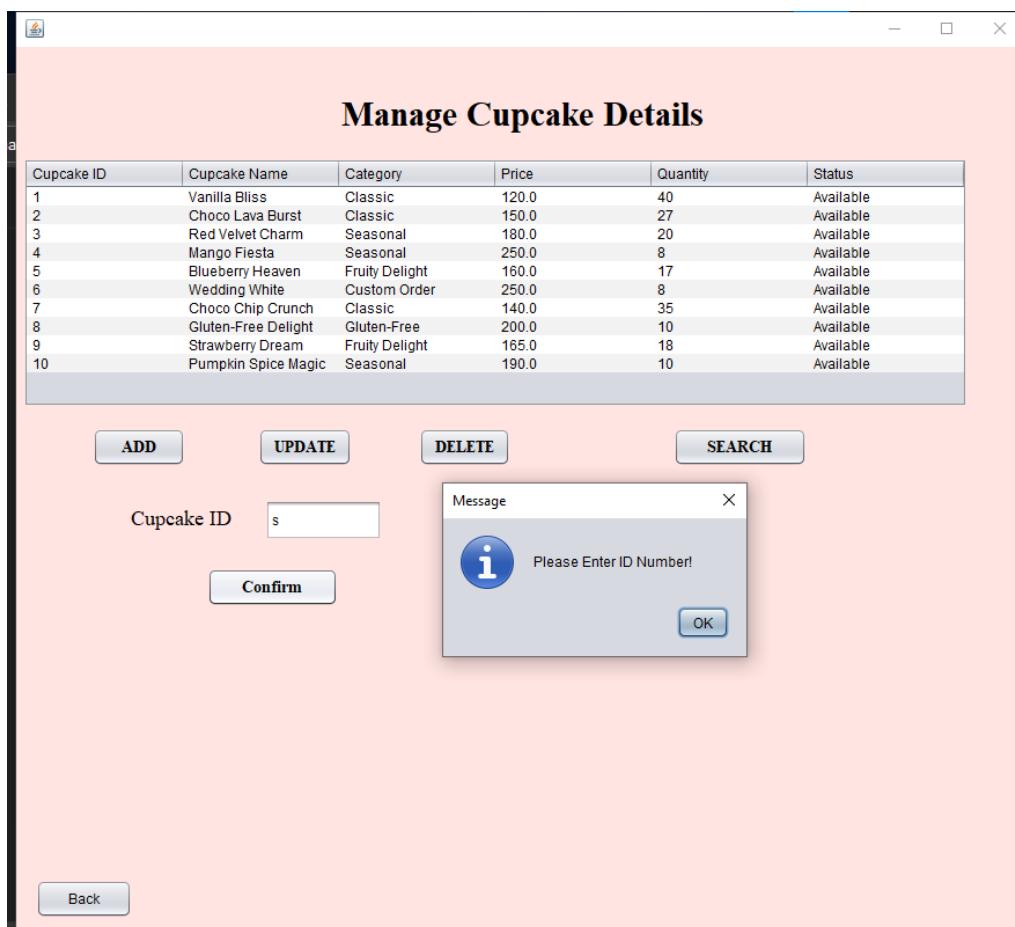


Figure 17: Error Message 1

- **Add Cupcake Without Filling All Fields:** Shows “Please fill in all fields.”

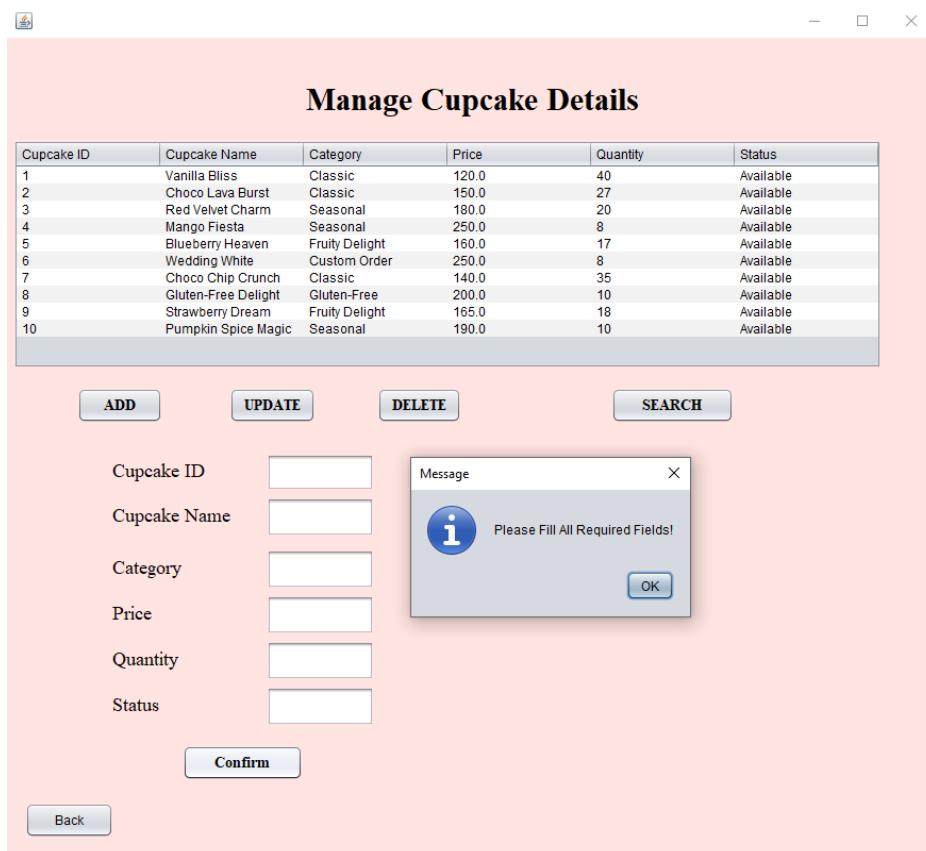


Figure 18: Error Message 2

- Invalid Cupcake ID:** Displays an error message when the user tries to delete a cupcake that does not exist in the database.

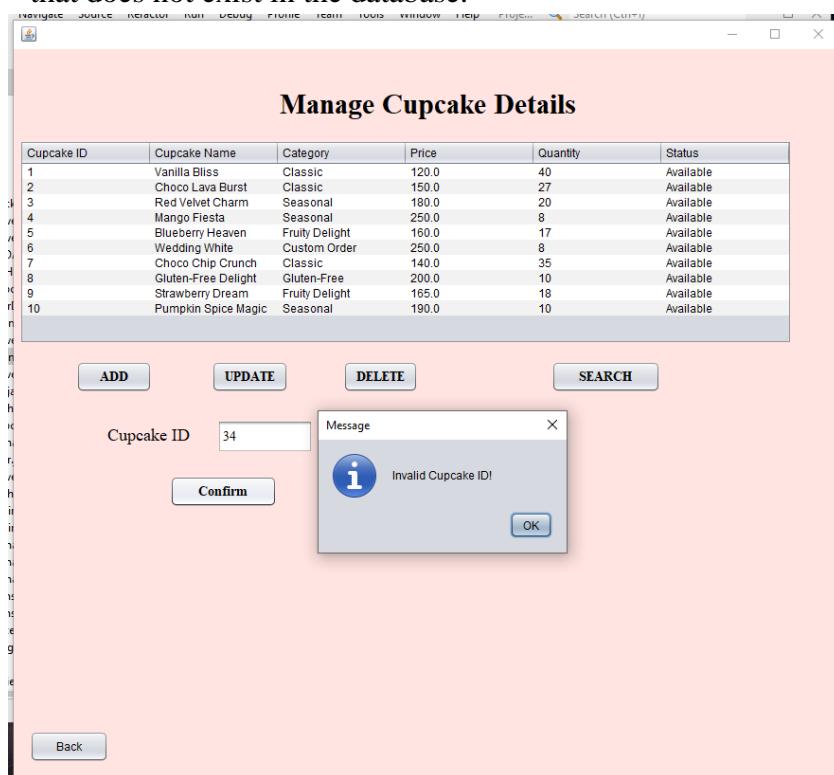


Figure 19: Error Message 3

- **Duplicate Cupcake ID:** Prevents adding cupcakes with an existing ID.

Cupcake ID	Cupcake Name	Category	Price	Quantity	Status
1	Vanilla Bliss	Classic	120.0	40	Available
2	Choco Lava Burst	Classic	150.0	27	Available
3	Red Velvet Charm	Seasonal	180.0	20	Available
4	Mango Fiesta	Seasonal	250.0	8	Available
5	Blueberry Heaven	Fruity Delight	160.0	17	Available
6	Wedding White	Custom Order	250.0	8	Available
7	Choco Chip Crunch	Classic	140.0	35	Available
8	Gluten-Free Delight	Gluten-Free	200.0	10	Available
9	Strawberry Dream	Fruity Delight	165.0	18	Available
10	Chocolate	Classic	250.0	23	Available

ADD UPDATE DELETE SEARCH

Cupcake ID: 10
 Cupcake Name: Vanilla
 Category: Classic
 Price: 230
 Quantity: 20
 Status: Available

Message

Cupcake ID 10 already exists! Please use a different ID.

OK

Confirm

Back

Figure 20: Error Message 4

VIII. Logout and Exit

- Close the form window to exit.
- User session ends automatically, and login info is recorded.

IX. System Navigation Guidelines

- **Buttons:** Confirm actions before deleting to avoid data loss.
- **Billing:** Enter cupcake ID and quantity only; other fields auto-fill and total calculates automatically.

X. Troubleshooting

- **Database missing** (sweetcupcake.accdb): Ensure file is in the project folder; restore from backup if deleted.
- **Cannot connect to database:** Verify UCanAccess driver is installed and added to project libraries; restart NetBeans.
- **Login not working:** Check username/password.

Default accounts: Manager: admin/admin123, Cashier: Cashier1/cashier1.

- **Cupcake not adding/saving:** Ensure all fields (name, category, price, quantity) are correctly filled; numeric fields must contain numbers.
- **Delete button not working:** Select a cupcake before pressing Delete.

This user manual ensures smooth operation for Cashiers and Managers. The system helps with day-to-day bakery operations such as cupcake management, sales, billing, account management, and auditing, making workflows efficient and reliable for better customer service.