

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.

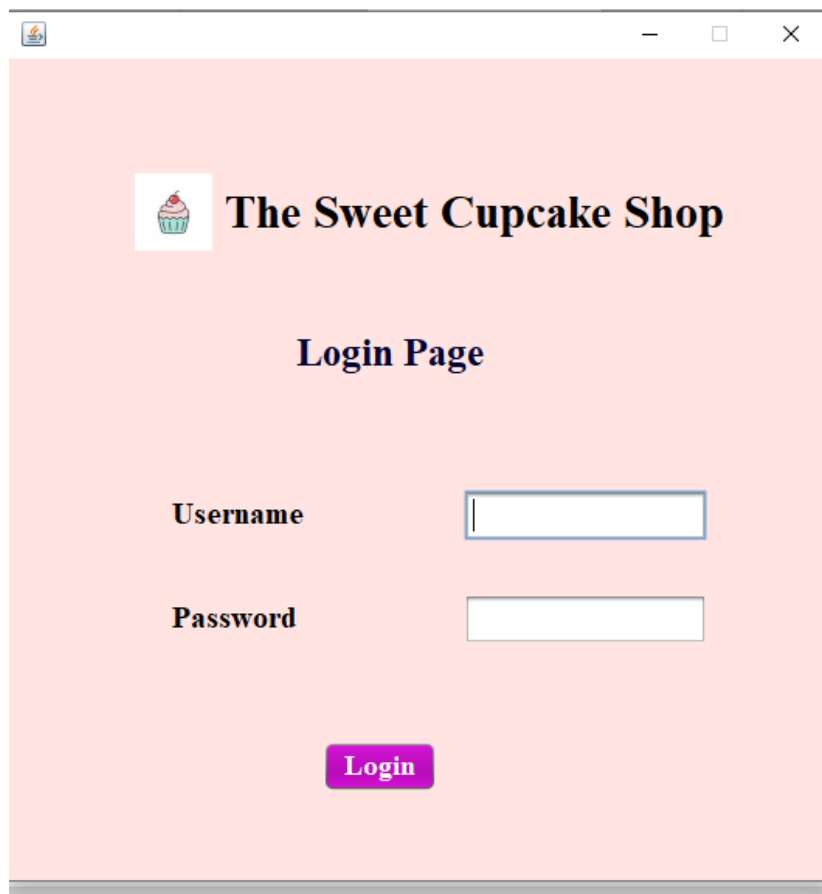
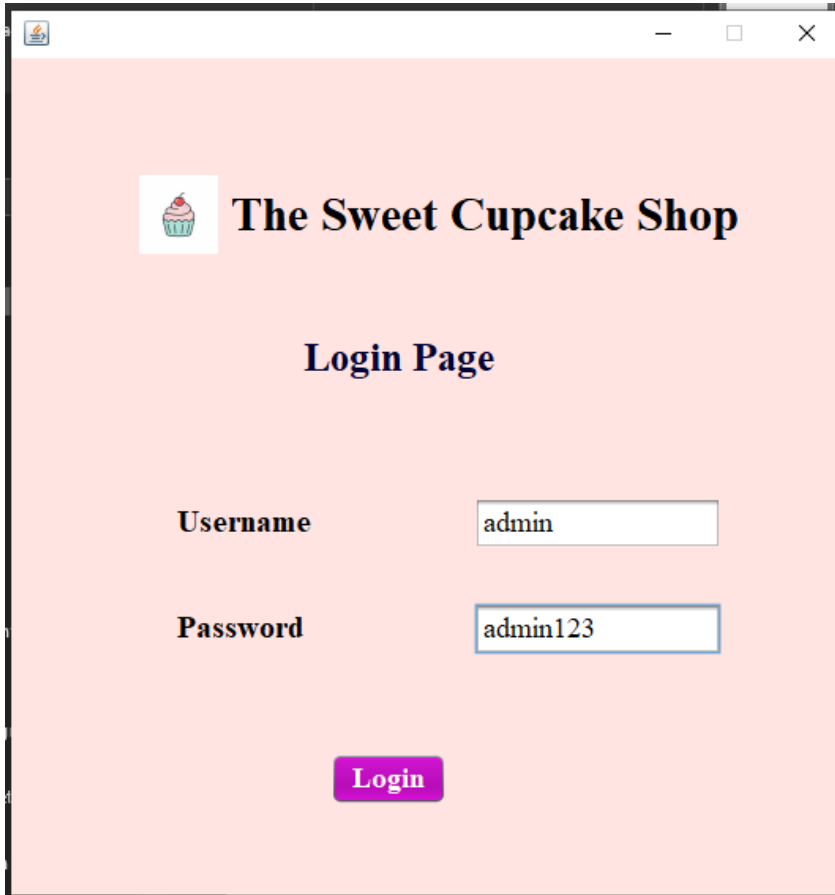


Figure 1: Login Screen

IV. Login Process

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



The screenshot shows a web browser window displaying the login page for 'The Sweet Cupcake Shop'. The page has a light pink background. At the top left, there is a small icon of a cupcake. To its right, the text 'The Sweet Cupcake Shop' is displayed in a large, bold, black serif font. Below this, the text 'Login Page' is centered in a bold, black serif font. There are two input fields: 'Username' with the value 'admin' and 'Password' with the value 'admin123'. Below the password field is a purple 'Login' button.

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."

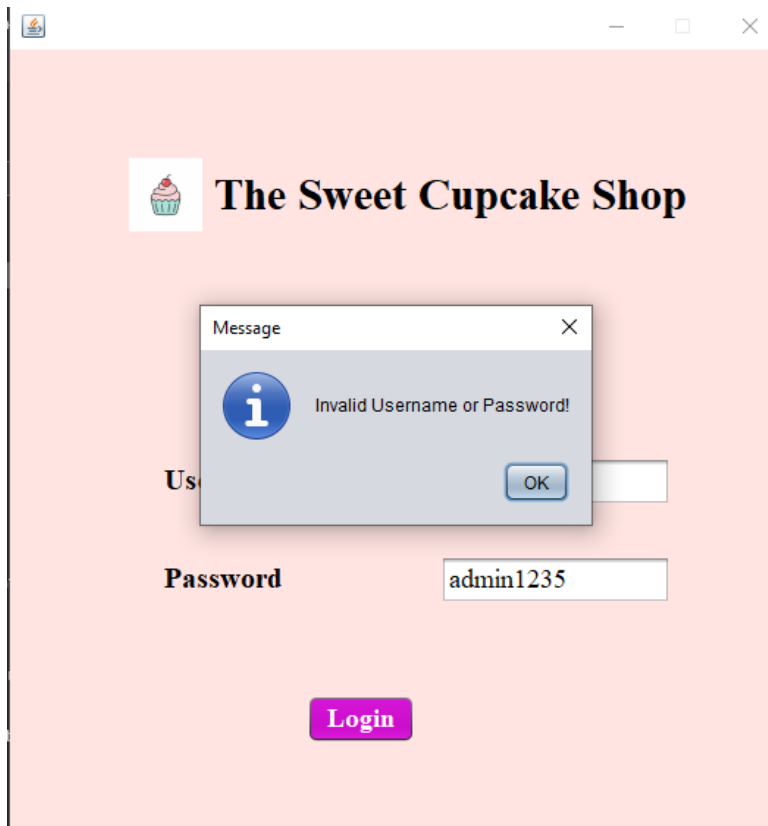


Figure 3: Incorrect Credentials

V. Cashier Functions

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

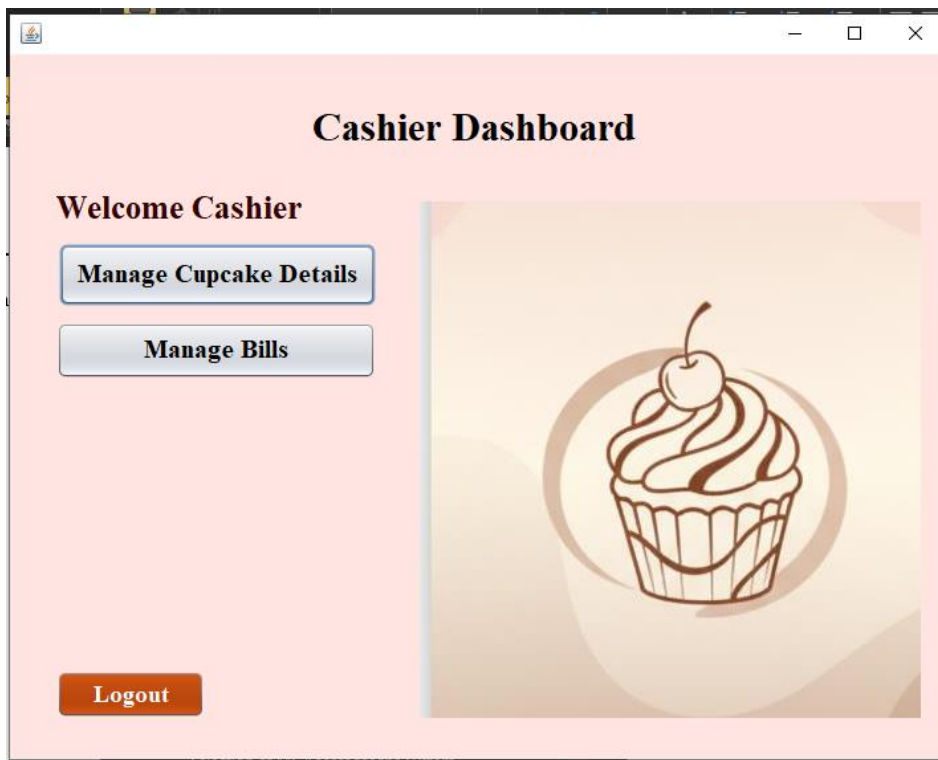


Figure 4: Cashier dashboard

Available Features for Cashier

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

The screenshot shows a window titled "Manage Cupcake Details" with a light pink background. At the top, there is a table with 6 columns: Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status. The table contains 10 rows of data. Below the table, there are four buttons: ADD, UPDATE, DELETE, and SEARCH. At the bottom left, 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

Buttons: ADD, UPDATE, DELETE, SEARCH, Back

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, but with the "ADD" button highlighted. Below the table, there are input fields for Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status. Below these fields, there are buttons: ADD, UPDATE, DELETE, SEARCH, and a Confirm button. At the bottom left, 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

Buttons: ADD, UPDATE, DELETE, SEARCH, Confirm, Back

Input fields: Cupcake ID, Cupcake Name, Category, Price, Quantity, Status

Figure 6: Add New Cupcake function

3. **Search Cupcakes:** Search by cupcake category.

Manage Cupcake Details

Cupcake ID	Cupcake Name	Category	Price	Quantity	Status
3	Red Velvet Charm	Seasonal	180.0	20	Available
4	Mango Fiesta	Seasonal	250.0	8	Available
10	Pumpkin Spice Magic	Seasonal	190.0	10	Available

ADD

UPDATE

DELETE

SEARCH

Search by Category:

Seasonal

Classic

Custom Order

Fruity Delight

Gluten-Free

Seasonal

Back

Figure 7:Search cupcakes by Category

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

Manage Cupcake Details

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

ADD

UPDATE

DELETE

SEARCH

Cupeake ID

Confirm

Back

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

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

ADD **UPDATE** **DELETE** **SEARCH**

Cupcake ID

Cupcake Name

Category

Price

Quantity

Status

Confirm

Back

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.

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

Enter a Sale **View Transaction History**

New Bill

Cupcake ID

Cupcake Name

Category

Unit Price

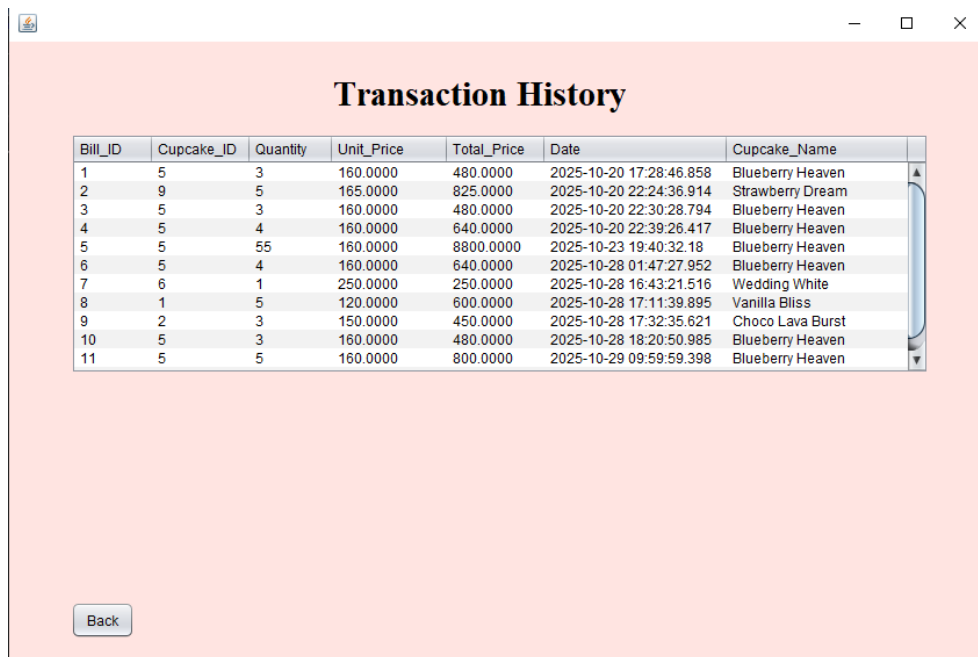
Quantity

Total **LKR 960.00**

Back **Confirm Sale**

Figure 9: Enter a Sale

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

A screenshot of a software window titled "Transaction History". The window has a light pink background. At the top center, the title "Transaction History" is displayed in a bold, black, serif font. Below the title is a table with 7 columns: Bill_ID, Cupcake_ID, Quantity, Unit_Price, Total_Price, Date, and Cupcake_Name. The table contains 11 rows of transaction data. At the bottom left of the window, there is a "Back" button.

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

Figure 10: Bill History Function

VI. Manager Functions

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

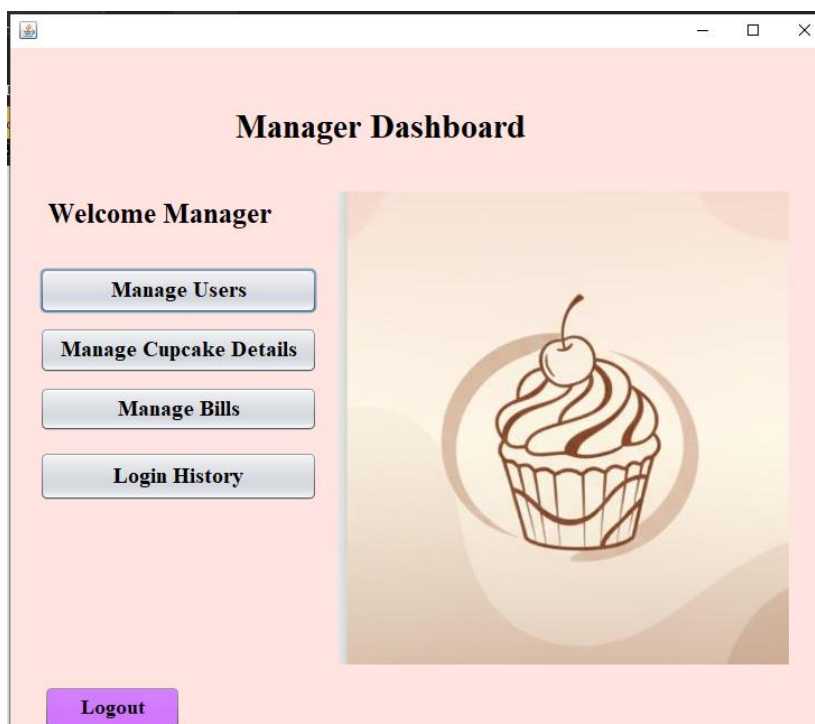


Figure 11: Manager Dashboard

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

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

ADD UPDATE DELETE

User ID

Full Name

Contact

Role

Username

Password

CONFIRM

Back

Figure 12: Add User Function

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

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

ADD UPDATE DELETE

User ID

Full Name

Contact

Role

Username

Password

CONFIRM

Back

Figure 13: Update User Function

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

ADD UPDATE DELETE

User ID

CONFIRM

Back

Figure 14:Delete User Function

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

Login History

Login_ID	User_ID	Full_Name	Role	Date
1	1	John Smith	Manager	2025-10-21 15:16:22.617
2	1	John Smith	Manager	2025-10-21 15:18:38.362
3	1	John Smith	Manager	2025-10-21 15:21:30.196
4	2	Alice Johnson	Cashier	2025-10-21 15:22:06.374
5	1	John Smith	Manager	2025-10-21 15:22:45.555
6	3	Bob Williams	Cashier	2025-10-21 15:27:39.466
7	1	John Smith	Manager	2025-10-21 15:34:15.229
8	1	John Smith	Manager	2025-10-22 21:36:29.015
9	1	John Smith	Manager	2025-10-22 22:27:01.376
10	1	John Smith	Manager	2025-10-22 23:41:57.329

Back

Figure 15:Login History Function

VII. Error Handling

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

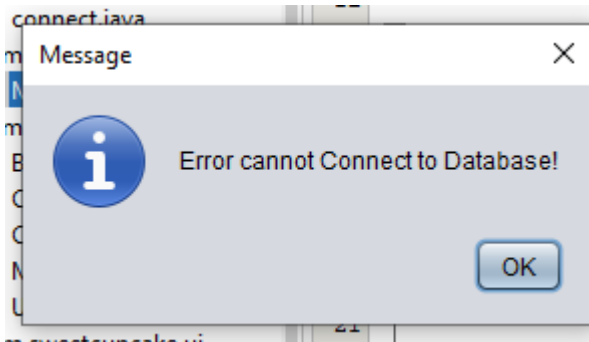


Figure 16:Database Cconnection Failure

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

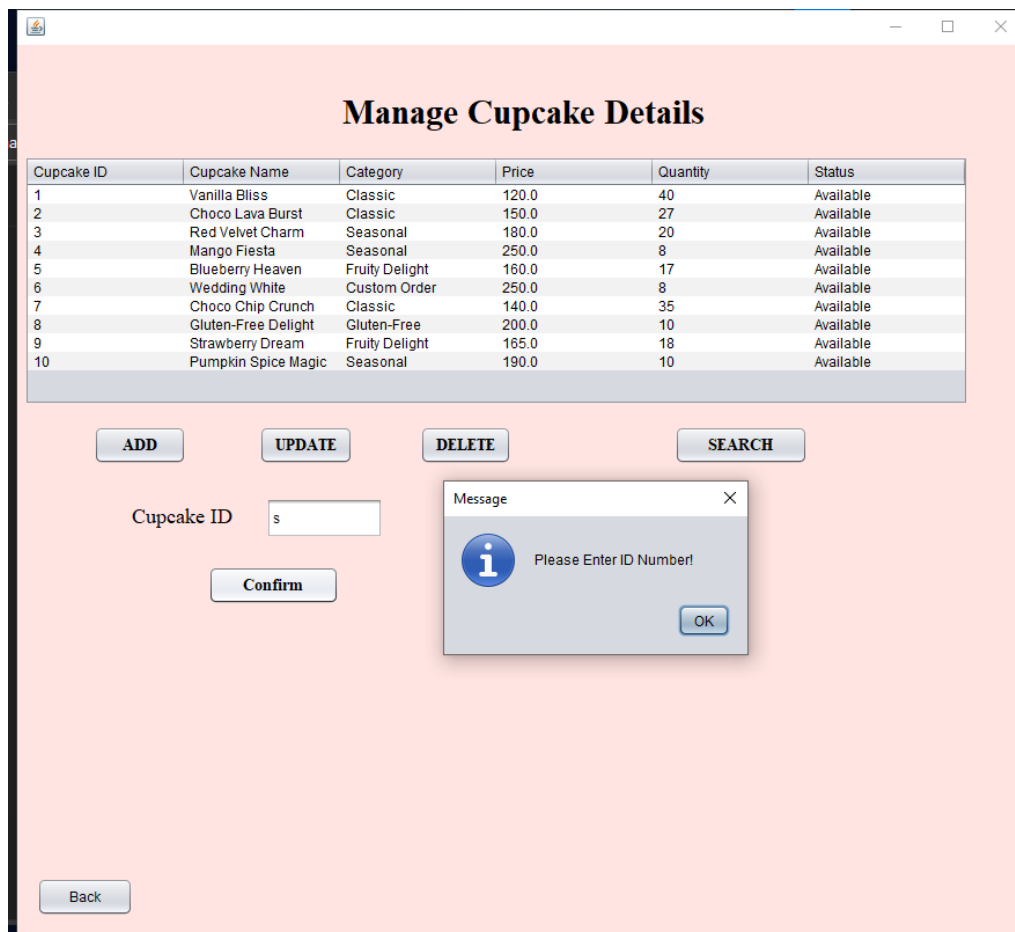


Figure 17:Error Message 1

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

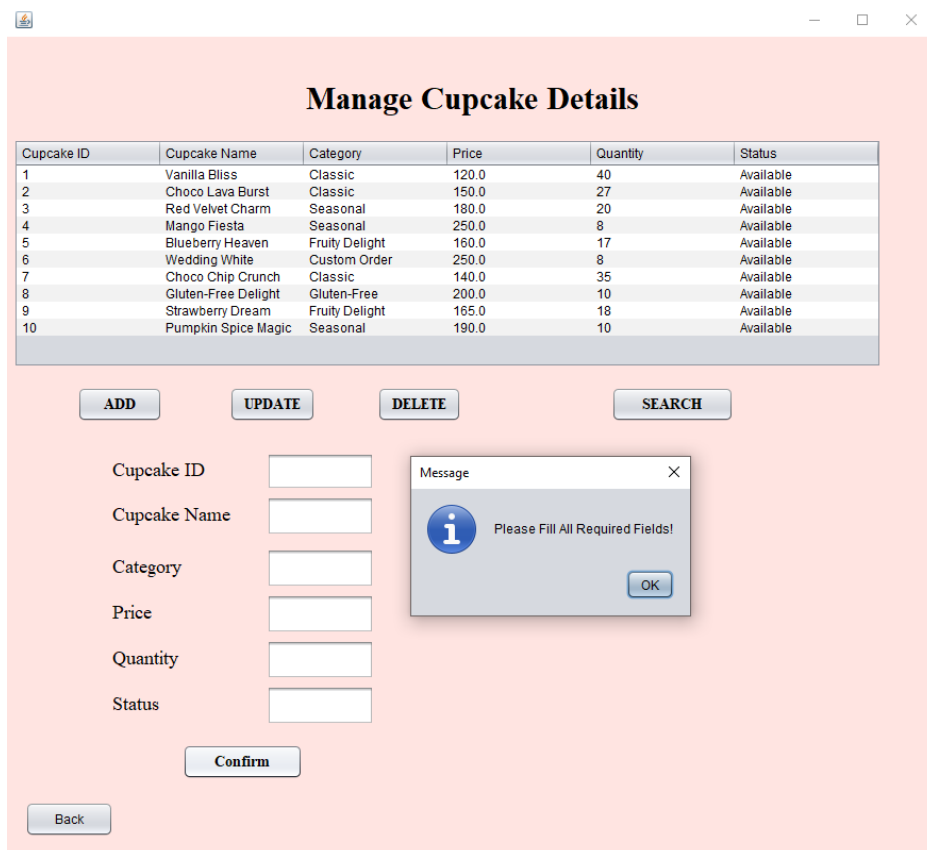


Figure 18: Error Message 2

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

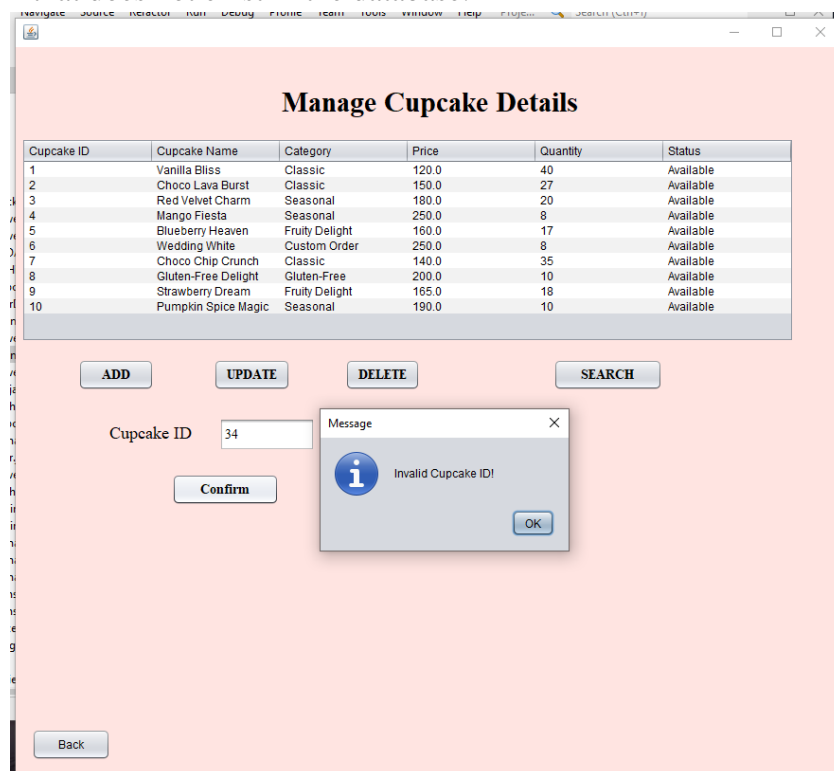


Figure 19: Error Message 3

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

The screenshot shows a web application window titled "Manage Cupcake Details". At the top, there is a table listing 10 cupcakes with columns for Cupcake ID, Cupcake Name, Category, Price, Quantity, and Status. The table data is as follows:

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

Below the table are four buttons: ADD, UPDATE, DELETE, and SEARCH. Under the ADD button, there are input fields for Cupcake ID (10), Cupcake Name (Vanilla), Category (Classic), Price (230), Quantity (20), and Status (Available). A Confirm button is located below these fields. A Back button is at the bottom left. An error message dialog box is open in the center, titled "Message", with an information icon and the text: "Cupcake ID 10 already exists! Please use a different ID." with an OK button.

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.