Jan's Wholesale & Retail

JWR Management System Manual (v1.0.0)

Updated: November 11, 2022

Overview

The JWR Management System was developed to streamline our business processes. The software allows us to quickly view and modify items in stock, manage customer data, manage employees, document customer purchases, and generate product reports. This document serves as a user manual to inform staff members how to use the JWR Management system to conduct daily operations at our store.

Application User Interface

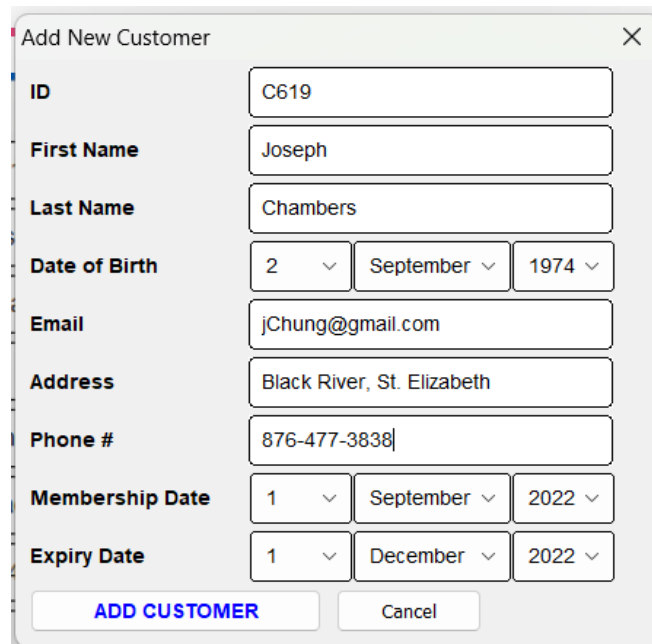The application used by managers and cashiers

Home/Splash Screen
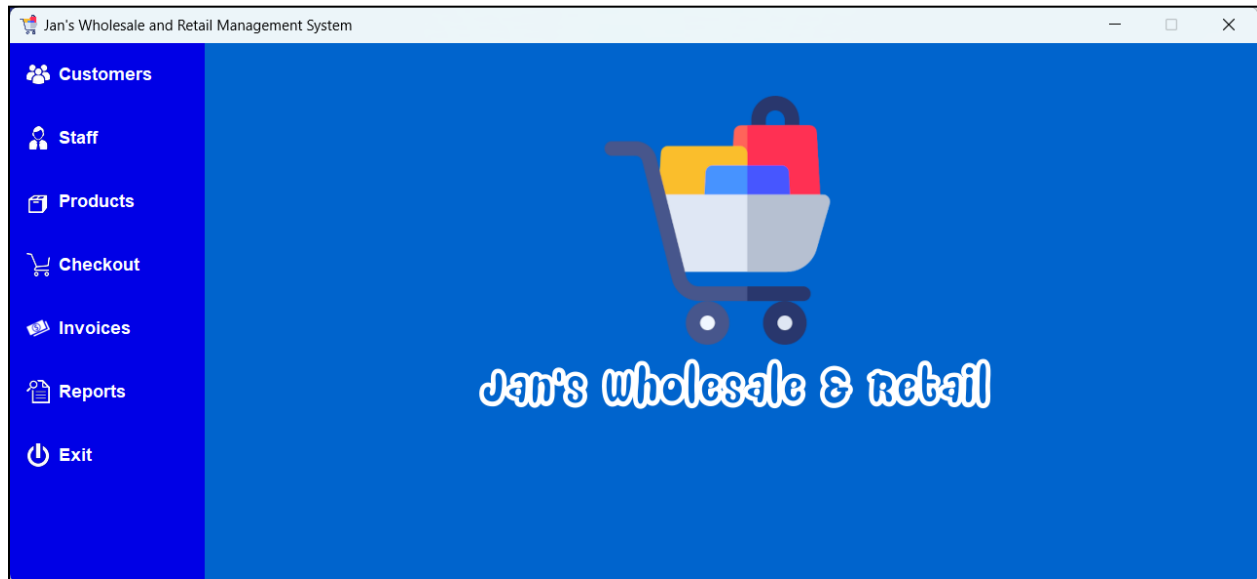
This screen is presented at startup. From here you will be able to navigate to various sections of the application depending on what you wish to accomplish. On the left is a list of buttons (tabs) corresponding to different aspects of our operation. For example, To add or view a customer, choose the "Customers" tab on the left.

Customers Screen
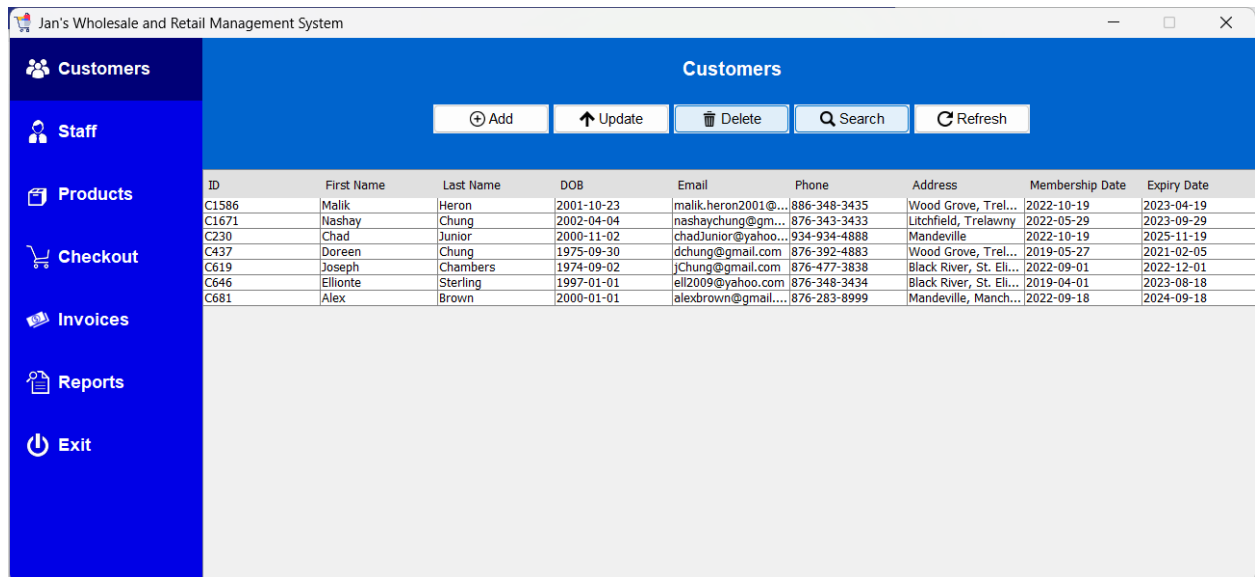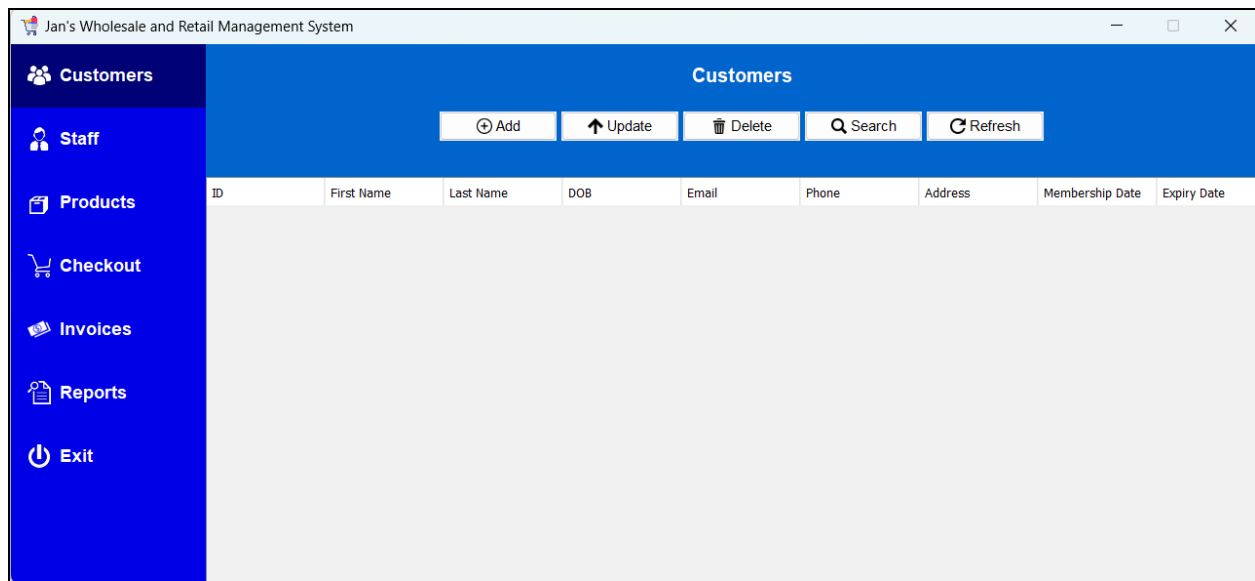
On the Customers screen, you will see a list of all registered customers in the system and their details. At the top of the screen five(5) actions can be taken:

- **Adding a Customer**
  - After clicking the add button you will see the prompt below to enter new customer information.
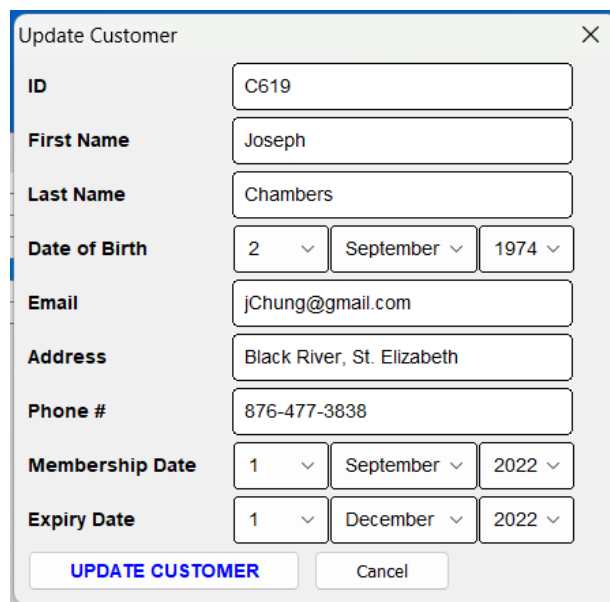
- **Updating an Existing Customer**
  - The update button will search for the selected customer and then fetch and display the corresponding data in a prompt. The user would then be allowed to enter any current changes to that customer.
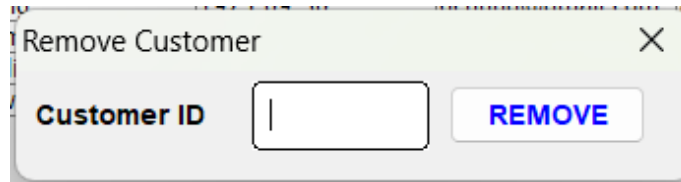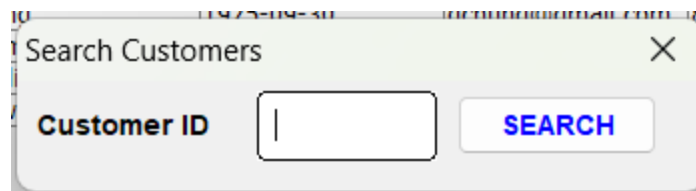
- **Deleting a Customer**
  - The delete button searches and removes existing customer information from the database. This can be done by selecting the row of the table which contains the customer information you wish to remove, then clicking the delete button. You could also select the delete button and then enter the ID number for the customer you wish to remove.

Remove Customer		✕
Customer ID	[|]	**REMOVE**

- **Search for a Customer**
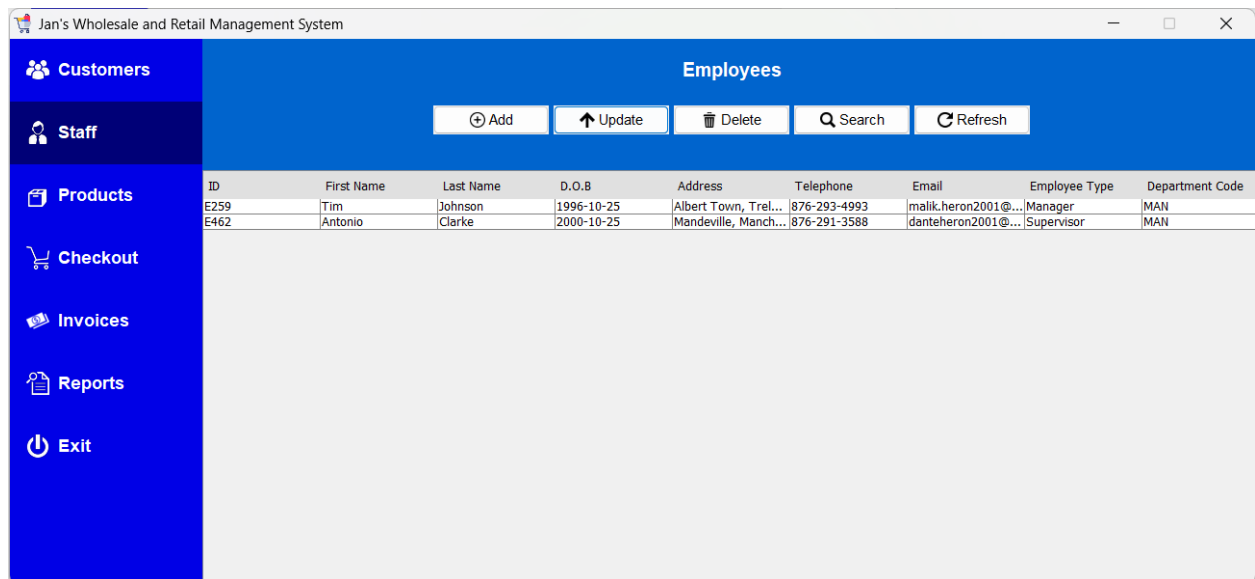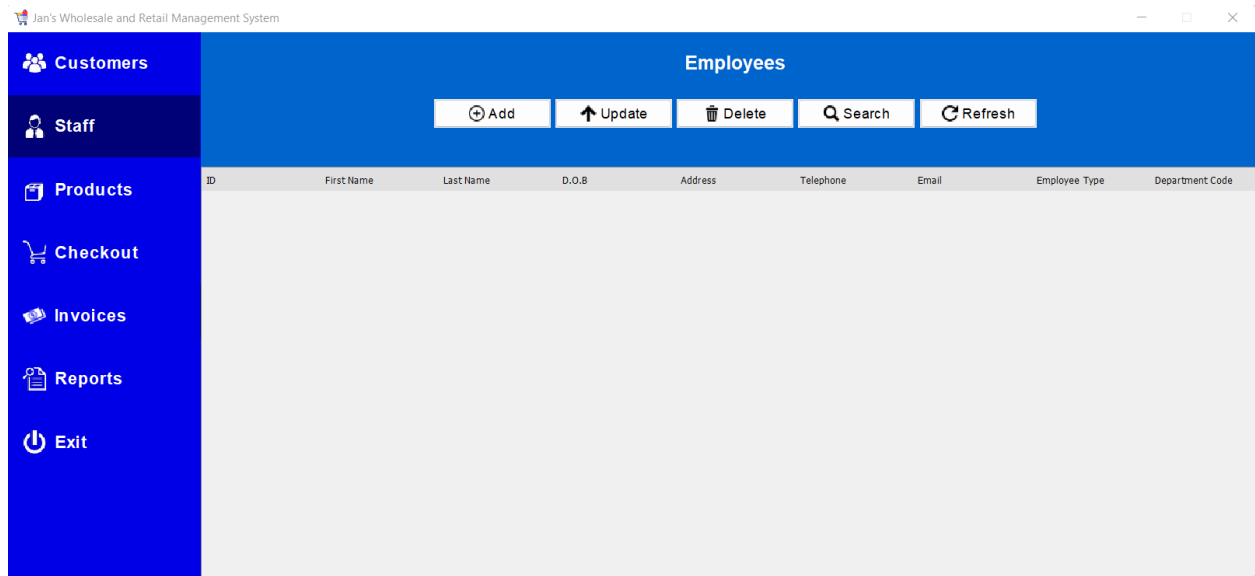 - The search button searches the database using the customer ID entered in the prompt. If the customer's record exists in the server's database, the corresponding customer details will be displayed to the user.

Search Customers		✕
Customer ID	[|]	**SEARCH**

- **Refresh**
  - The refresh button will fetch and display the latest customer data from our servers.
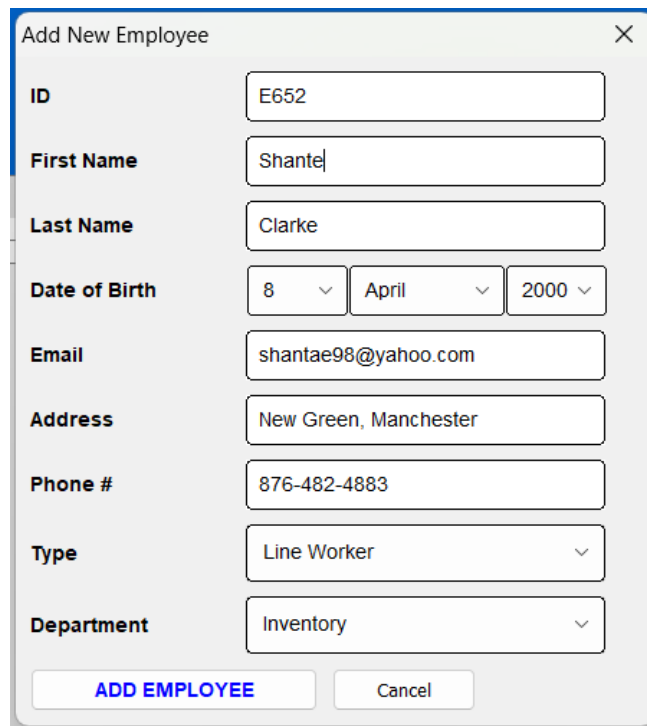
Employees Screen

On the Employee Screen, you may view a list of all persons that are employed by Jan's wholesale and retail organization. This screen shows a list of records that are used to track and maintain information about each staff. At the top of the screen, five (5) actions can be performed:

- **Adding an employee**

○ After clicking the add button you will see the prompt below to enter new employee information.
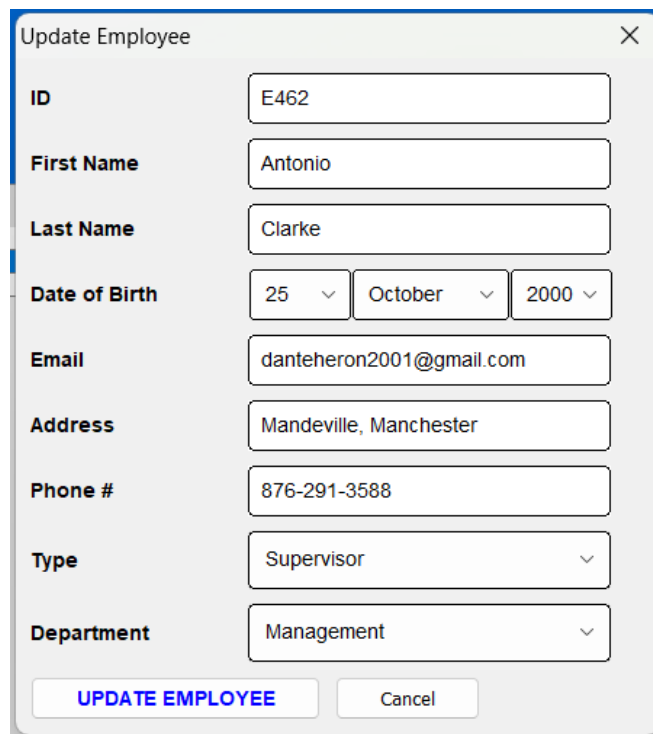
Add New Employee ✕

ID	E652
First Name	Shante|
Last Name	Clarke
Date of Birth	8 ⌄ April ⌄ 2000 ⌄
Email	shantae98@yahoo.com
Address	New Green, Manchester
Phone #	876-482-4883
Type	Line Worker ⌄
Department	Inventory ⌄

ADD EMPLOYEE   Cancel

● **Updating existing employee data**
  ○ The update button will search for the selected employee and then fetch and display the corresponding data in a prompt. The user would then be allowed to enter any current changes to that employee.

Update Employee
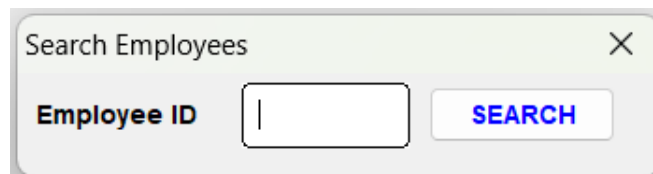
ID	E462
First Name	Antonio
Last Name	Clarke
Date of Birth	25 ∨ October ∨ 2000 ∨
Email	danteheron2001@gmail.com
Address	Mandeville, Manchester
Phone #	876-291-3588
Type	Supervisor ∨
Department	Management ∨

UPDATE EMPLOYEE   Cancel

- **Searching for an employee**
  - The search button searches the database using the employee ID entered in the prompt. If the employee's record exists in the server's database, the corresponding employee details will be displayed to the user.

Search Employees

Employee ID [   ] SEARCH

- **Deleting an employee's data**
  - The delete button searches and removes an employee's existing information from the database. This can be done by selecting the row of the table which contains the customer information you wish to remove, then clicking the delete button. You could also select the delete button and then enter the ID number for the customer you wish to remove.

Remove Employee ×

Employee ID [|]   **REMOVE**

- **Refreshing the employee screen**
  - The refresh button will fetch and display the latest data from our servers

Product Screen
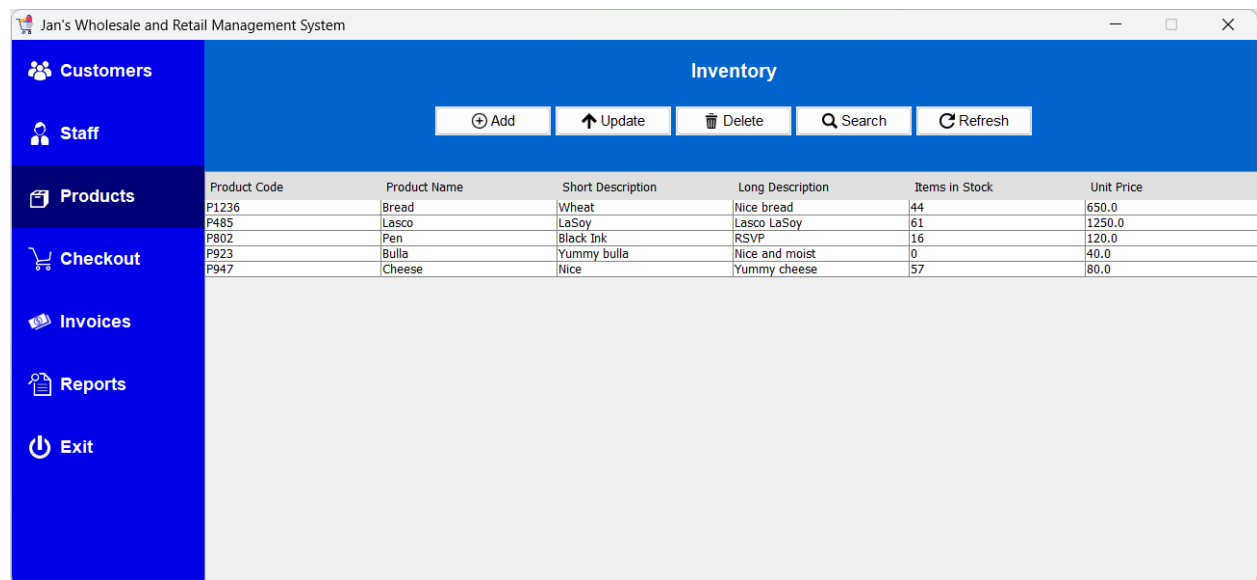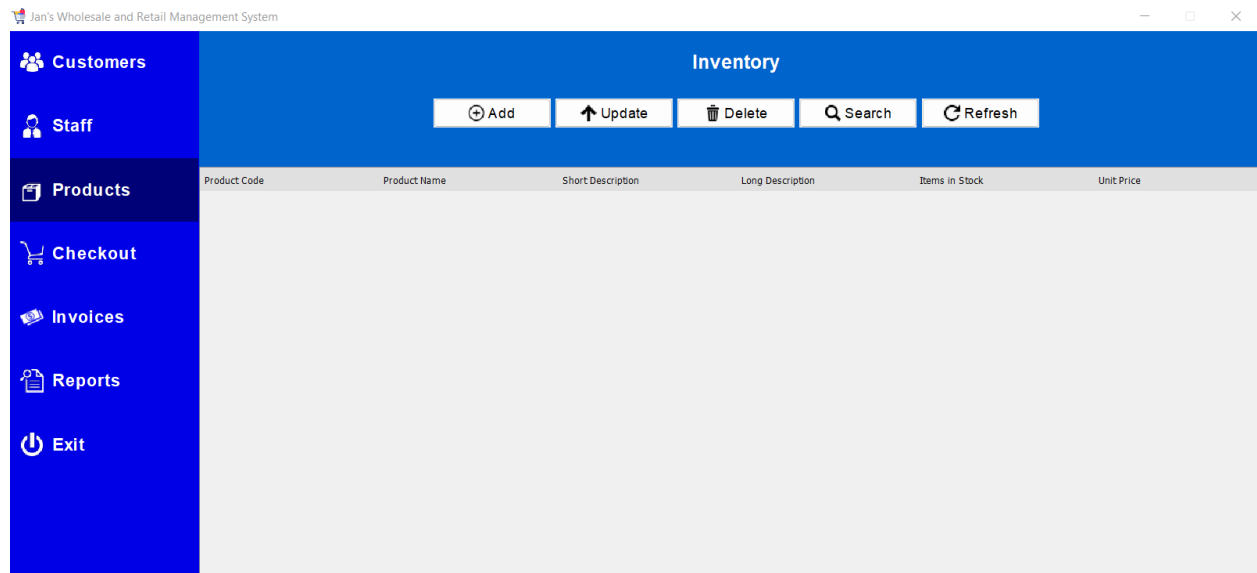
On the inventory screen, you may view a list of all items in stock (inventory). This screen shows a list of products and is used to track and maintain information about each product that has been sold. At the top of the screen, five (5) actions can be performed:

- **Adding a product**
  - After clicking the add button, you will be prompted to enter new product details to add to the inventory list as shown below.

- **Updating existing product data**
  - The update button will search for an existing product code and then fetch and display the data for that product. It will then prompt the user to enter any current changes to that product.
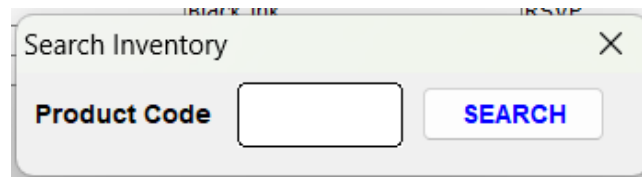
- **Searching for a product**
  - The search button searches the inventory database by product code for an existing product record and then displays the corresponding detail to the user.

- **Deleting a product's data**
  - The delete button searches and removes existing product information from the database.
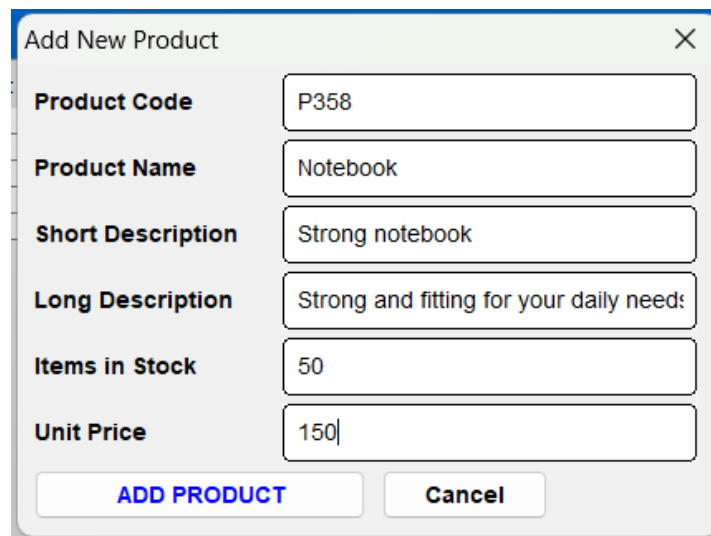

- **Refreshing the product screen**
  - The refresh button will fetch and display the latest data from our servers

Checkout Screen

There are six buttons on the checkout screen, each of which corresponds to a different action that can be taken by the user. If the customer is not enrolled in John's wholesale membership program, the customer ID is automatically issued the default number "C0000." The display of this ID number is seen in the image above.

The table below the adjacent buttons stores the list of items that are added to the customer's cart to be cashed, along with some of their attributes. The checkout screen allows a staff member to complete the following task through the use of buttons:

- **Add Customer**
  - The add customer button allows the user to add a new member to Wholesale's membership program. It works just the same as the add button on the customer screen. After clicking the add button you will see the prompt below to enter new customer information.

Add New Customer	✕
ID	C773
First Name	
Last Name	
Date of Birth	1 ⌄ January ⌄ 2000 ⌄
Email	
Address	
Phone #	
Membership Date	1 ⌄ January ⌄ 2000 ⌄
Expiry Date	1 ⌄ January ⌄ 2000 ⌄
ADD CUSTOMER Cancel	

  - Customer IDs are auto-created by the system. Users are only required to enter the rest of the customer's information. The ID number displayed in the ID field should be given to the customer being added for future use. After entering the customer information, click the add customer button highlighted in blue above to add the customer to the system's database. Select the cancel button to cancel the addition of a new customer.

- **Search for product**
  - The search button searches the inventory for the product selected and displays the corresponding data to the user.

- **Add Products to Cart**
  - The add button adds the product selected and quantity entered to the table(cart) which displays product details, cost per product unit, and total cost for the product quantity selected.

- **Delete Products from the Cart**
  - The delete button removes a selected product from the table(cart) before checking out a customer.
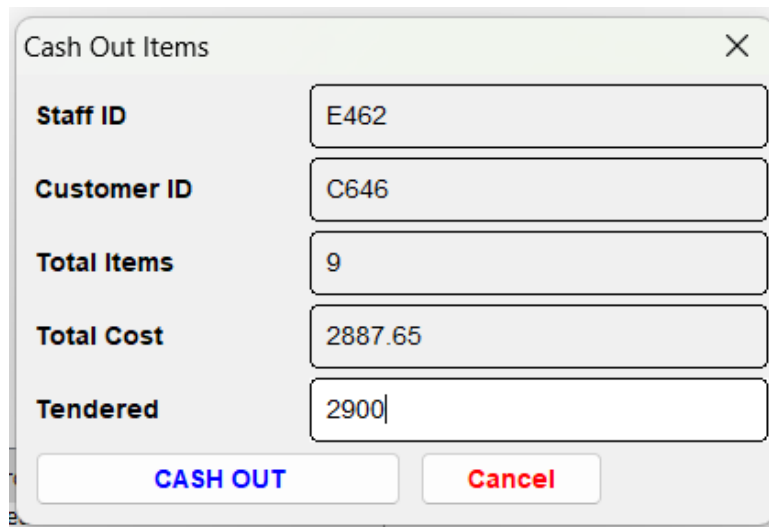
- **Clear Cart**
  - The clear button empties the table(cart) and text fields to process a new customer

- **Checkout Items**
  - The checkout button brings the user to the cashing screen after ensuring that a valid staff ID and customer ID were entered before proceeding to cash out. The cashout screen is displayed below in figure 2.0.

Cash Out Items   ✕

Staff ID	E462
Customer ID	C646
Total Items	9
Total Cost	2887.65
Tendered	2900

CASH OUT   Cancel
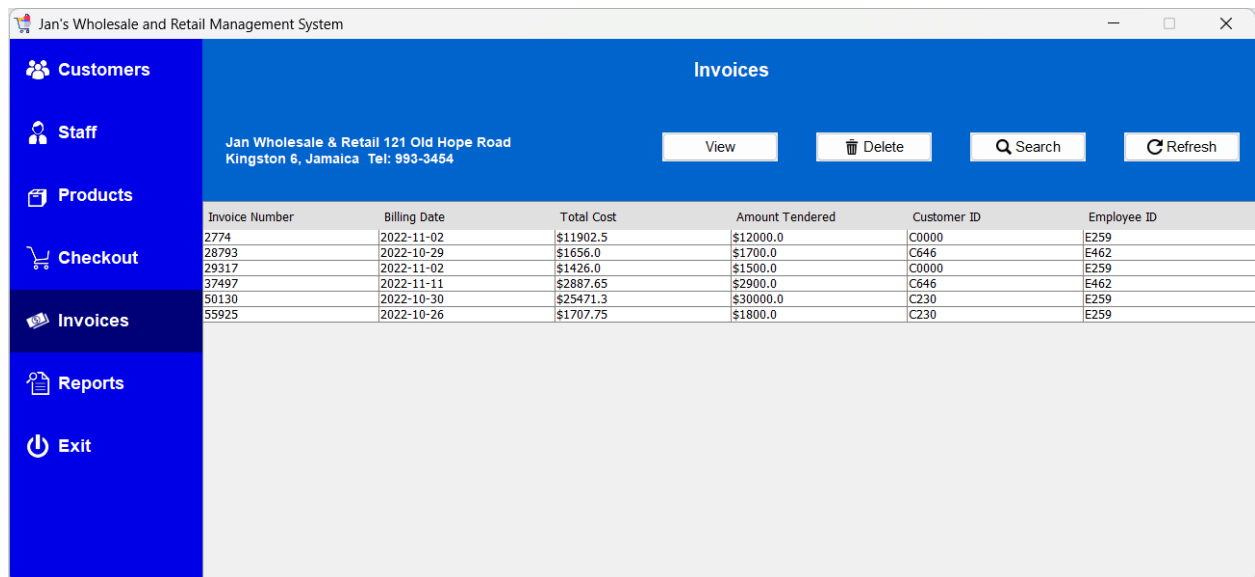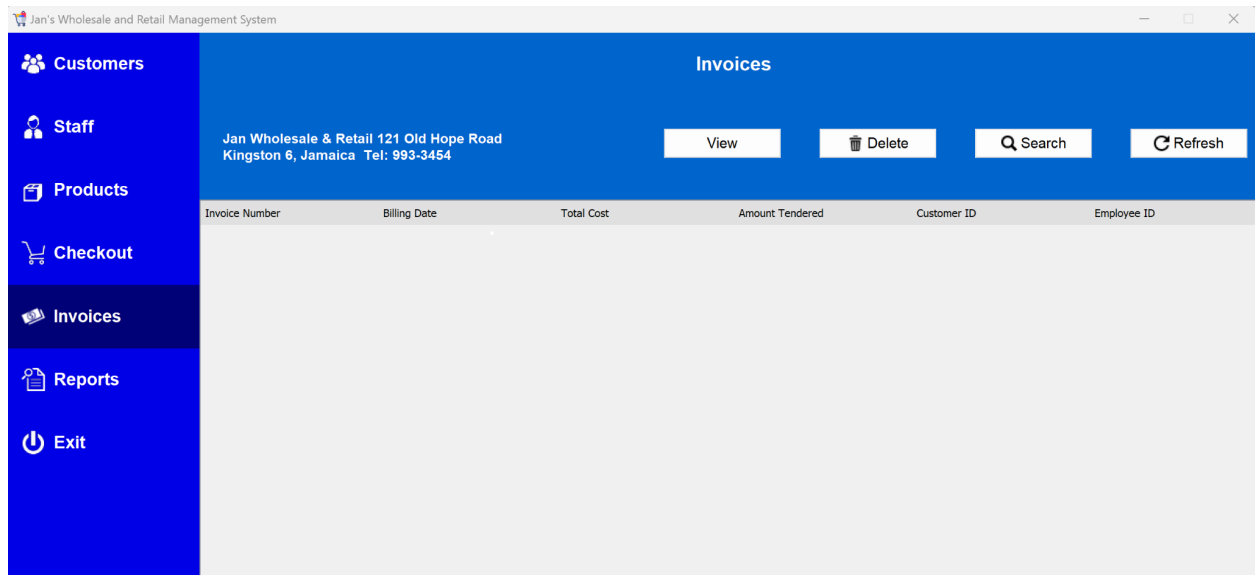
Invoice Screen

On the Invoice Screen, you may view a list of all invoices. This screen shows a list of purchases and it is used to track and maintain information about each purchase. At the top of the screen, there are four(4) actions that can be performed:

- **Viewing an invoice**
  - The view button is used to display the selected invoice in greater detail

Invoice Details ✕

Invoice Number	37497
Billing Date	2022-11-11
Customer	Ellionte Sterling
Cashier	Antonio Clarke

Product Name	Unit Price	Quantity	Total Cost
Bread	$ 650.0	2	$ 1300.0
Bulla	$ 40.0	6	$ 240.0
Lasco	$ 1250.0	1	$ 1250.0

Customer discount received

Amount Tendered $ 2900.0

Grand Total $ 2887.65

CLOSE	PRINT

- **Searching for an invoice**
  - The search button is used to search the list of invoices by invoice ID number and then display the corresponding invoice details to the user.

Search Invoices ✕

Invoice Number [   ] **SEARCH**

- **Removing an invoice**
  - The remove button will search and remove an existing invoice from the server's database.

    .
- **Refreshing the invoice screen**
  - The refresh button will fetch and display the latest data from our servers

Report screen

This screen generates a report on a particular product over a specific period for Jans Wholesale and Retail Company to analyze the demand for a particular product. On the left side of the screen, Two (2) actions can be performed:

- **Generate a Report**
  - The "Generate Report" button will fetch and display detailed information about a specific product over a specified period. This detail shows the number of items in stock and how many remain after the specified period (i.e., the total purchase).

- **Print the report**
  - The "Print" button will capture the generated report and initiate the system print dialog to send to a printer or PDF file.

Server Side Interface

An application used by IT staff to monitor and troubleshoot server issues.

Server Control Panel
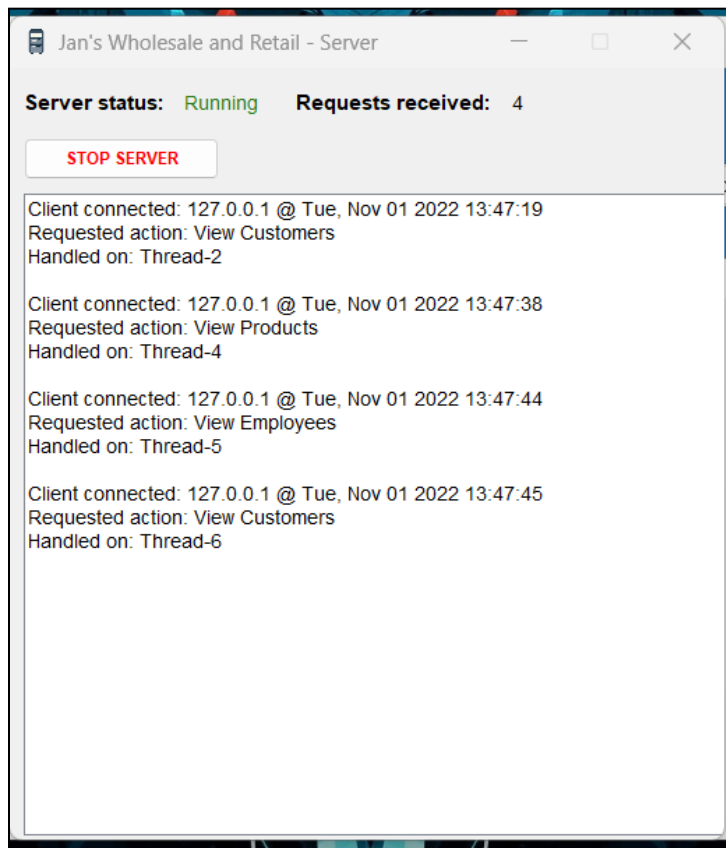
This window provides an overview of the running state of the server, requests received, and a live event log of all activity on the server. The control panel allows you to see the IP Address and timestamp of all requests sent to the server, along with the action requested.

The "Stop Server" button allows you to terminate the running server instance. **NB: All client applications will cease to function while the server is down.**

The server should only be stopped for maintenance or after work hours when no processing is occuring.

Server-Side Logs

For security, auditing, and troubleshooting, a log file is generated and updated while the server is running.

The log file can be found at **logs/eventlogs.log**.

```
161    [INFO ] 2022-10-30 10:39:21.591 [main] DBConnectorFactory - DB Connection Established @ Sun, Oct 30 2022 10:39:21
162    [WARN ] 2022-10-30 10:39:21.620 [main] DBConnectorFactory - SQLException: Table 'employee' already exists
163    [WARN ] 2022-10-30 10:39:21.620 [main] DBConnectorFactory - SQLException: Table 'customer' already exists
164    [WARN ] 2022-10-30 10:39:21.620 [main] DBConnectorFactory - SQLException: Table 'product' already exists
165    [WARN ] 2022-10-30 10:39:21.628 [main] DBConnectorFactory - SQLException: Table 'department' already exists
166    [WARN ] 2022-10-30 10:39:21.629 [main] DBConnectorFactory - SQLException: Table 'invoice' already exists
167    [WARN ] 2022-10-30 10:39:21.629 [main] DBConnectorFactory - SQLException: Table 'invoiceitem' already exists
168    [WARN ] 2022-10-30 10:39:21.631 [main] DBConnectorFactory - SQLException: Table 'inventory' already exists
169    [INFO ] 2022-10-30 10:39:21.952 [main] Server - Sever is running
170    [INFO ] 2022-10-30 10:40:01.040 [main] Server - Client connected: 127.0.0.1 @ Sun, Oct 30 2022 10:39:21
171    [INFO ] 2022-10-30 10:40:01.059 [Thread-3] Server - Requested action: View Products
172    [INFO ] 2022-10-30 10:40:12.019 [main] Server - Client connected: 127.0.0.1 @ Sun, Oct 30 2022 10:40:01
173    [INFO ] 2022-10-30 10:40:12.020 [Thread-4] Server - Requested action: View Products
174    [INFO ] 2022-10-30 10:40:13.893 [main] Server - Client connected: 127.0.0.1 @ Sun, Oct 30 2022 10:40:12
175    [INFO ] 2022-10-30 10:40:13.898 [Thread-5] Server - Requested action: View Invoices
176    [INFO ] 2022-10-30 10:40:53.090 [main] Server - Client connected: 127.0.0.1 @ Sun, Oct 30 2022 10:40:13
```

The log file contains timestamped records of all requests received by the server and stack traces of programming errors caught by the system.