2023

SalemOne Order System Project Notebook

WRITTEN BY:
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PROJECT PROPOSAL

Introduction

The purpose of this project proposal is to present the design and implementation of an ordering system for Salem-One, a printing company located in Winston-Salem, NC. Salem-One specializes in printing large quantities of packaging, post-cards, advertisements, and other print materials for customers. The company is seeking a more efficient and streamlined way to manage orders, and this project aims to provide a solution that meets their needs.

Background

Currently, Salem-One relies on salespersons to take customer orders and submit them for processing. This manual process can be time-consuming and expensive, leading to inefficiencies and decreased customer satisfaction. The company recognizes the need for a more efficient and effective way to manage orders and is looking for a solution that streamlines the process and provides real-time visibility into order status. With the development of a mobile app for customers to place orders, a desktop app for employees to view order and inventory information, and a database to store order and inventory data, this project aims to address the current challenges faced by Salem-One and improve the overall ordering process.

Objectives

- Develop a mobile app that allows customers to place orders easily and efficiently.
- Create a desktop app for employees to view order and inventory information.
- Build a database that stores order and inventory information, enabling real-time reporting.
- Improve the efficiency of the ordering process.
- Provide customers with real-time visibility into the status of their orders.
- Give employees access to up-to-date inventory information to help manage stock levels.

Time Frame

February 2023 – May 2023

PROJECT SCOPE

Justification

The project aims to streamline the ordering process for Salem-One by providing an efficient platform for customers to place their orders. The platform will also store the orders in a database, allowing Salem-One to easily access and manage the information as well as manage inventory. With the ability to interface with the database, Salem-One can process orders more quickly and accurately, while also providing customers with a more personalized and convenient ordering experience. This project aligns with Salem-One's goal of providing top-notch customer service while increasing operational efficiency. By implementing this project, Salem-One will be able to stay competitive in an ever-changing market and meet the demands of a growing customer base. Additionally, the project will help Salem-One reduce costs associated with manual order processing and inventory management. Overall, this project will have a significant impact on Salem-One's bottom line by improving customer satisfaction, streamlining operations, and reducing costs.

Objectives

The primary objective of this project is to design and develop a comprehensive ordering and inventory management system that streamlines the ordering process and allows Salem-One to efficiently manage and track customer orders and inventory levels. The system will include a desktop program for employees, a database, and a mobile app for customers that is intuitive and user-friendly. The desktop program will allow company employees to view and search for orders as well as inventory information. The mobile app will provide customers with the ability to place orders directly from their mobile device as well as real-time updates on their orders. The database will have three tables: one for orders, one for inventory, and one for customers.

Requirements/Features

Desktop Program:

- View orders placed by customers
- Search orders using any kind of info included in the order (ex. order number or customer name)
- Update order status
- Close completed orders
- View inventory levels

Database:

- Orders table
- Order Items table
- Inventory table
- Customers table

Mobile App:

- Submit orders
- Add necessary information for the order (including name & contact info, details necessary for the design of the order, quantity, shipping info, etc.)
- View orders' status
- Cancel orders

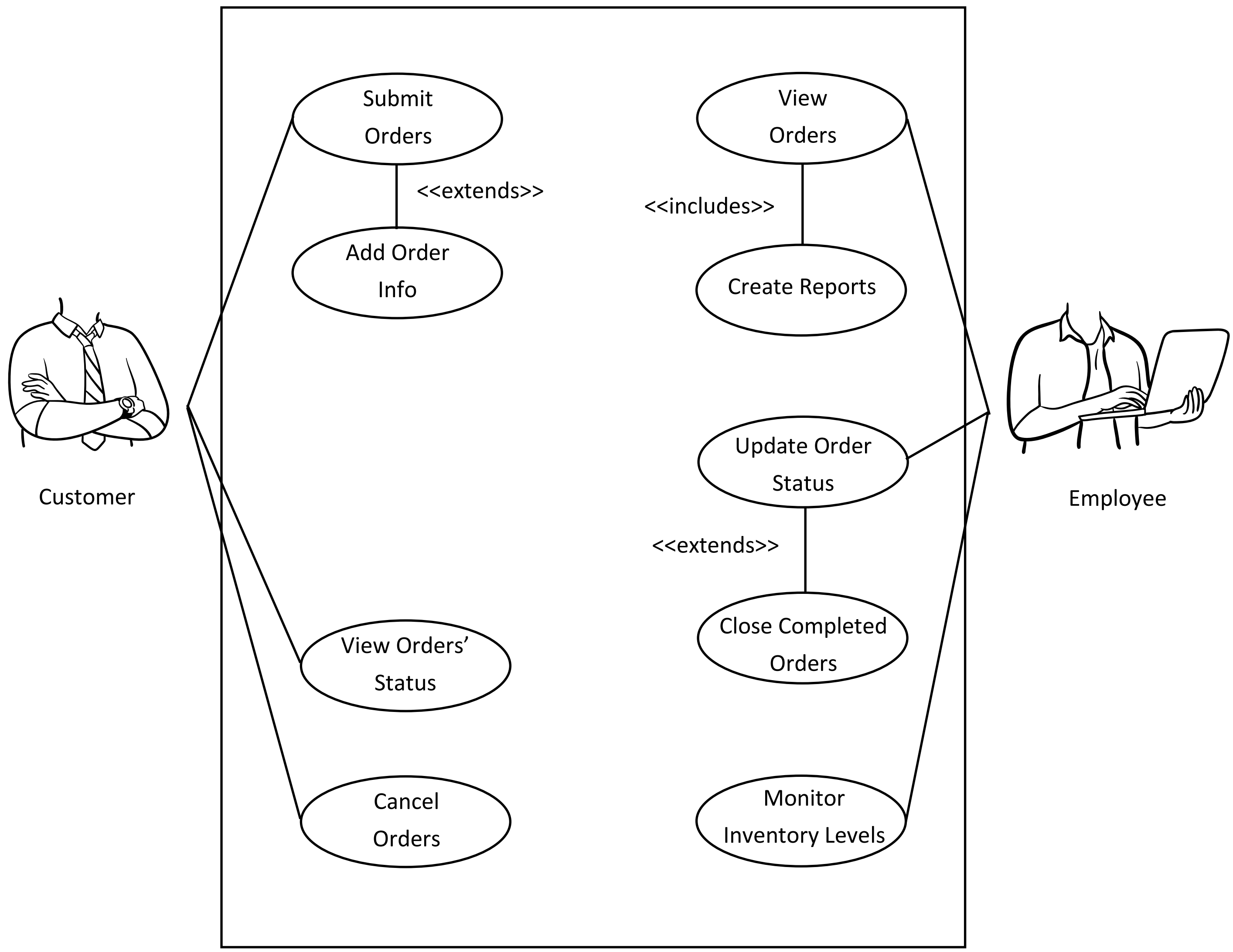
Deliverables

The project is expected to produce the following deliverables:

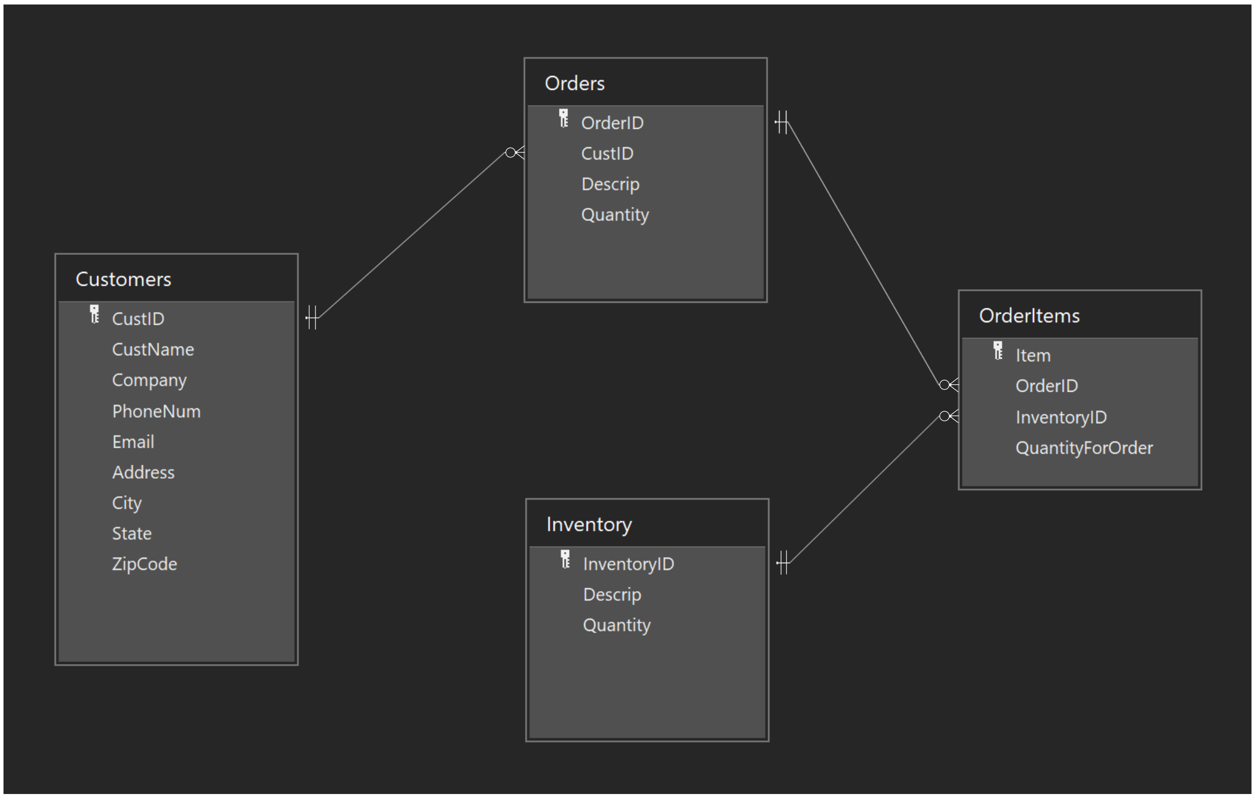
- A desktop program for employees that meets the listed requirements.
- A database that includes a table for orders and a table for inventory.
- A mobile app for customers that meets the listed requirements.
- Project documentation, including proposal and scope documents, status reports, time sheets, and diagrams, to provide a comprehensive overview of the project.

All software deliverables will be thoroughly tested and reviewed to ensure that they meet the project requirements and objectives. Upon completion, the final deliverables will be handed over to the client for implementation.

USE CASE DIAGRAM



ERD DIAGRAM



Orders
OrderID
CustID
Descrip
Quantity
Customers
CustID
CustName
Company
PhoneNum
Email
Address
City
State
ZipCode
OrderItems
Item
OrderID
InventoryID
QuantityForOrder
Inventory
InventoryID
Descrip
Quantity

STATUS REPORT #1

Memo

To: Samuel Dorsett

From: Pierre Valentine

Date: February 12, 2023

Subject: Status Report #1

This week I finalized preparations for the project. I decided that the desktop program will be coded in JAVA. I will begin work on the project next week, starting with the desktop program and the database. My main focus and goal will be setting up the database and connecting it to the desktop program. My main issues this week has been keeping up with the workload and getting out the documentation on time. There is a lot of work to be done in and especially outside of the project and balancing it all has been difficult, though I am slowly catching up and getting back on track.

TIME SHEET #1

Pierre Valentine

January 20, 2023 – February 10, 2023

Description	Hours Billed
Client Interview	1
Documentation	5
Management Meetings	2
Total	**8**

STATUS REPORT #2

Memo

To: Samuel Dorsett

From: Pierre Valentine

Date: February 24, 2023

Subject: Status Report #2

In these past two weeks I have focused on deliverables and finishing my design for the project before I get started. I made the use-case diagram which outlined exactly how both the customer and the employees of Salem-One will be interfacing with the program. I also decided to add another table to my database design. This is the “Order Items” table and will be a junction table between the “Orders” and “Inventory” tables which will show exactly which and how many inventory items are being used in each order, thus connecting the “Orders” and “Inventory” tables. I was able to get a little closer to being on track in this project, with the other work and projects I have to deal with outside of this one continuing to make things difficult. I have caught up on all deliverables. Now I will be focusing on getting caught up on development of the program itself. Next week will focus on the creation of the database itself as well as the tables within the database. I will also be working on an Entity Relationship Diagram (ERD).

TIME SHEET #2

Pierre Valentine

February 11, 2023 – February 24, 2023

Description	Hours Billed
Documentation	6
Management Meetings	2
Total	**8**

STATUS REPORT #3

Memo

To: Samuel Dorsett

From: Pierre Valentine

Date: March 24, 2023

Subject: Status Report #3

Over the past month I have made a decent amount of progress on the database and desktop program as well as finishing some necessary deliverables for the project. I started by making the ERD Diagram for my database, allowing both you and the client to have a simple and effective way of telling how the relational database works and how the tables work together. I then started work on making the database for the desktop application. I was able to finish the database and get some sample data put in to it for testing. Fortunately, this went relatively smoothly. I haven't worked with databases in JAVA Netbeans in a while, so there was a small period of getting used to it again, but once I got the hang of it again, it was smooth sailing. From there I started work on the desktop application itself. I worked primarily on getting the "Search Orders" screen to work. I set up the search bar and was able to get the orders to properly show up according to the search. No major struggles here. Looking forward, I have a lot I still need to do. Next step will likely be to get the "Order Details" or "Manage Orders" screen to work. I still have a long road ahead of me and a lot more work to get done to finish this project, so I am a little worried about what it's going to take to get it finished in time, but I'll do my best to keep things on schedule and let you know if I have any more problems moving forward.

TIME SHEET #3

Pierre Valentine

February 25, 2023 – March 24, 2023

Description	Hours Billed
Documentation	4
Management Meetings	2
Database Programming	5
JAVA Desktop Application Programming	6
Total	**17**

STATUS REPORT #4

Memo

To: Samuel Dorsett

From: Pierre Valentine

Date: April 7, 2023

Subject: Status Report #4

Over the past couple weeks, I have focused solely on the programming portion of the desktop application. My time was spent on polishing the “Search Orders” screen. I added an extensive amount of sample data to make my database to make testing the application much easier. I found that the way I had formatted the data on the screen when searching was not ideal for the way that I wanted everything to look and function, so I reworked the way that orders display in the “Search Orders” screen. They now display in a list which allows the user to select specific orders that they may be looking at and then double click them to open the “Manage Order” screen to manage the specific order they double-clicked on. I also spent a long time getting the scroll bar to work for this page in case there are more orders than can fit on one page. It isn’t perfect, but the scroll bar at least works well in full screen which is what is most important to me. Over the next few weeks, I will be focusing on the “Manage Order” screen. I have made it so I can open the screen and carry over the Order ID of the order that was double-clicked on the “Search Orders” screen, but I have yet to add any actual functionality, which is what I will be doing next. I fortunately have no major problems to report at the moment.

TIME SHEET #4

Pierre Valentine

March 25, 2023 – April 7, 2023

Description	Hours Billed
Management Meetings	1
Documentation	1
Database Programming	1
JAVA Desktop Application Programming	4
Total	**7**

USER'S MANUAL TABLE OF CONTENTS

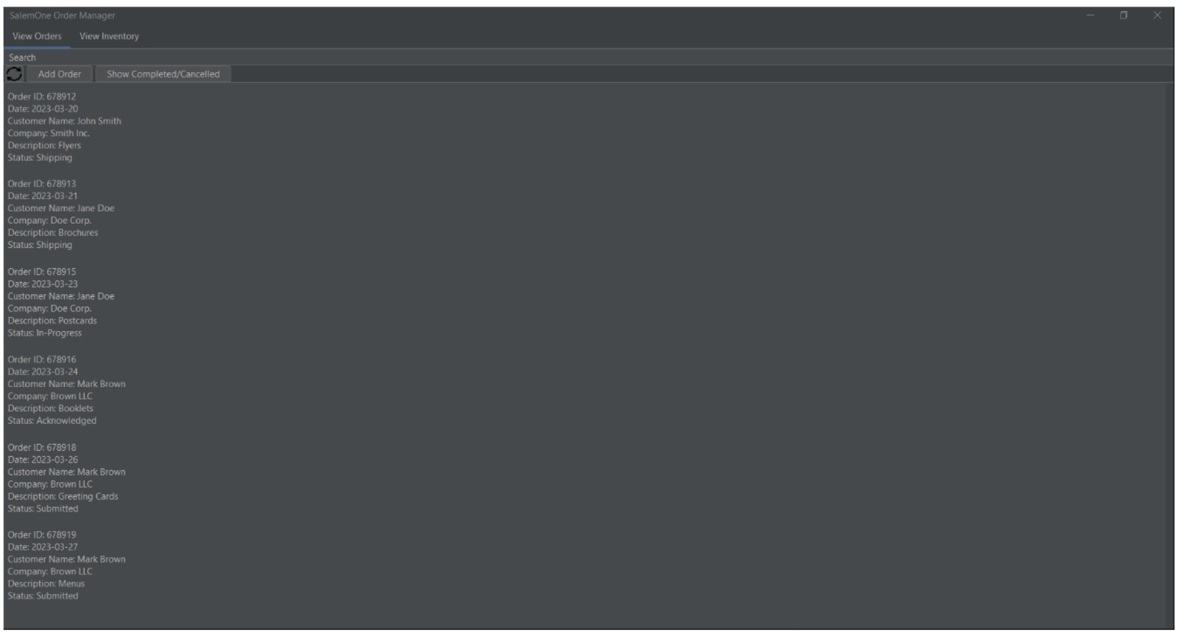
EMPLOYEE DESKTOP PROGRAM

Orders

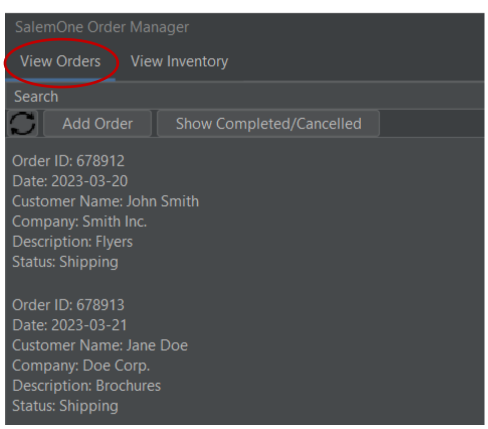
View Orders

View Orders Tab

When the application is first opened, you will be presented with the “View Orders” screen.

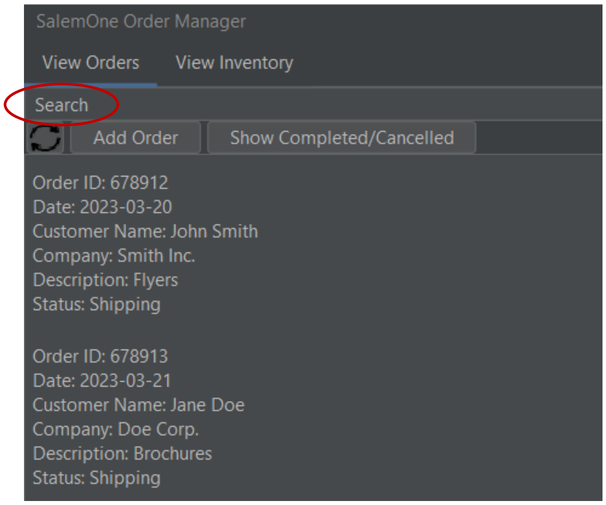


If this screen is not displayed or has been clicked away from, click on the “View Orders” tab in the top-right of the screen to view this page.

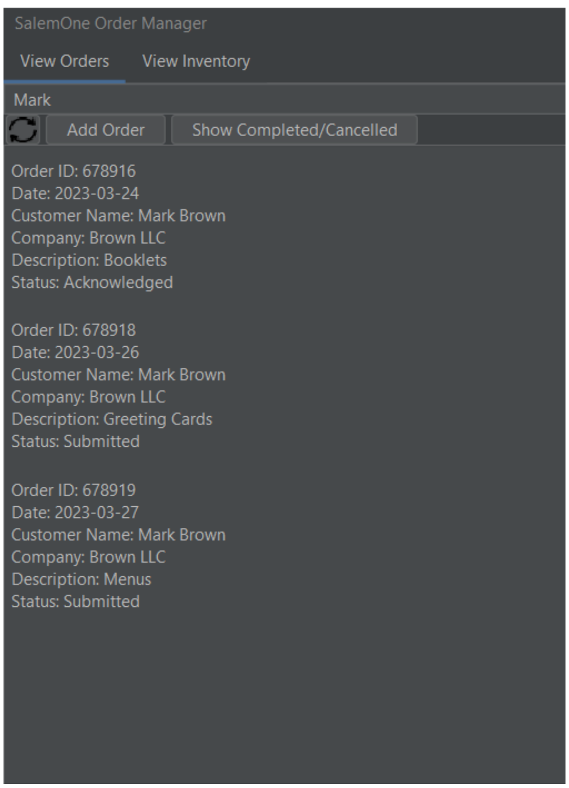


Search Orders

You can search through orders using the search bar at the top of the screen.



You can search by Order ID, Customer Name, or Company Name.

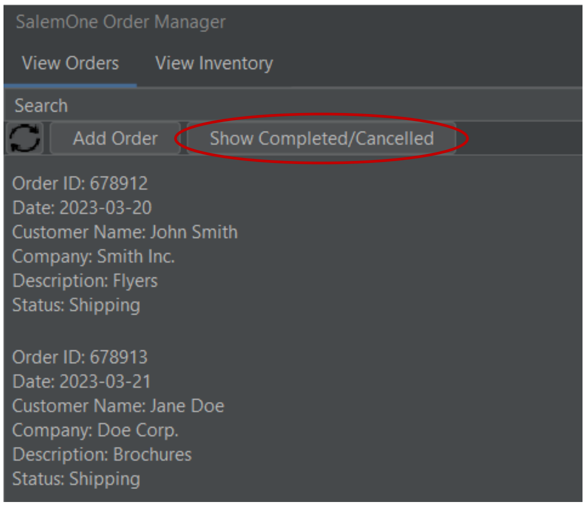


Clearing the search bar will display all orders.

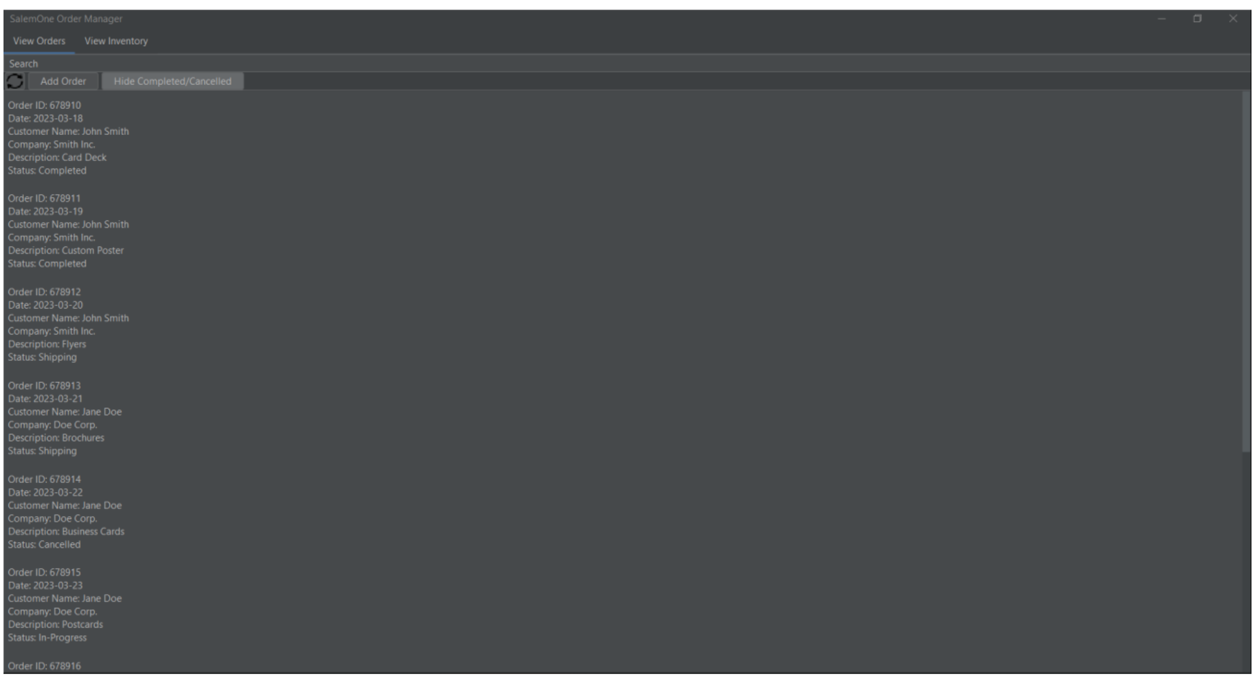
Show Completed/Cancelled Orders

By default, any orders with the order status of “Completed” or “Cancelled” will not be displayed.

To show completed and cancelled orders, click the “Show Completed/Cancelled” button located underneath the search bar.



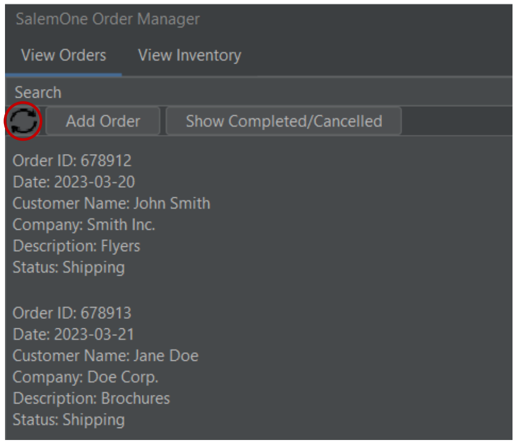
All orders will now be shown, including those that are completed or cancelled.



The button can be clicked again to hide completed and cancelled orders.

Refresh Button

At any point, you can click the refresh button at the top of the page to refresh all orders on the "View Orders" screen.



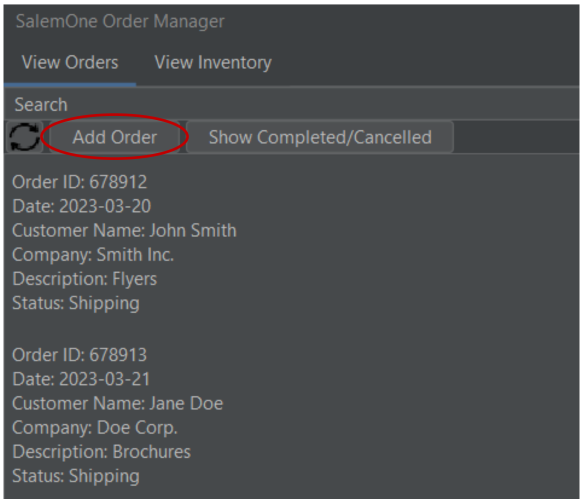
This is especially useful after you have added or updated an order. Clicking the refresh button after making either of these changes will update the list of orders to reflect the changes you have made.

Before refreshing the page, any updates to existing orders or additions of new orders may not be properly displayed and the information may be outdated.

Add Orders

Add Order Screen

Clicking on the “Add Order” button in the top right of the “View Orders” tab will open up the “Add Orders” screen.

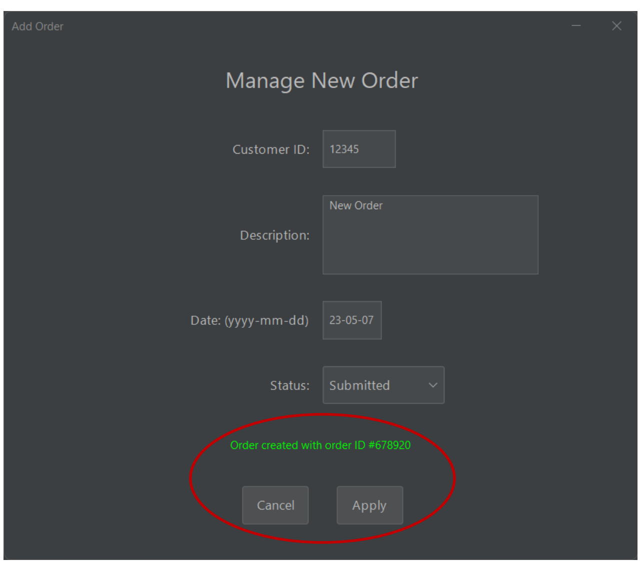


The “Add Order” screen will allow you to set the Customer ID, Description, Date, and Status of a new order.

After you have added the necessary data for the order, clicking the “Apply” button will add the order to the database.

If successful, a confirmation message will appear along with the Order ID of the new order. If not, an error message will appear and no changes will be made.

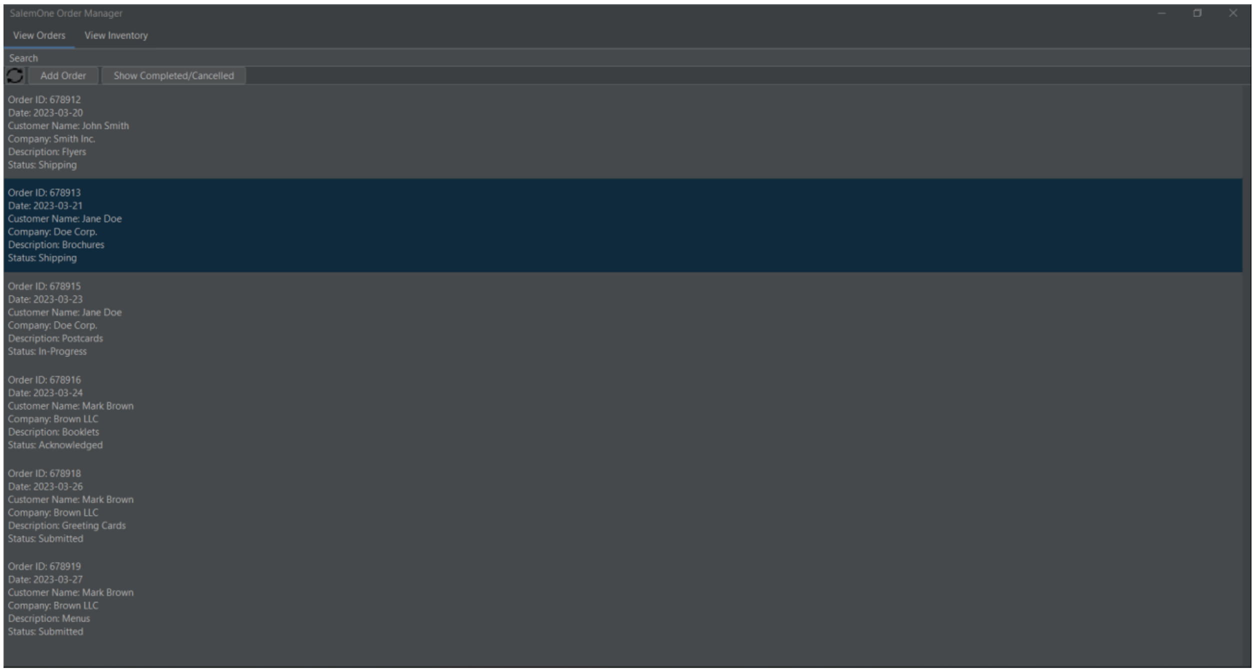
Clicking the “Cancel” button will exit the “Add Orders” screen and no changes will be made.



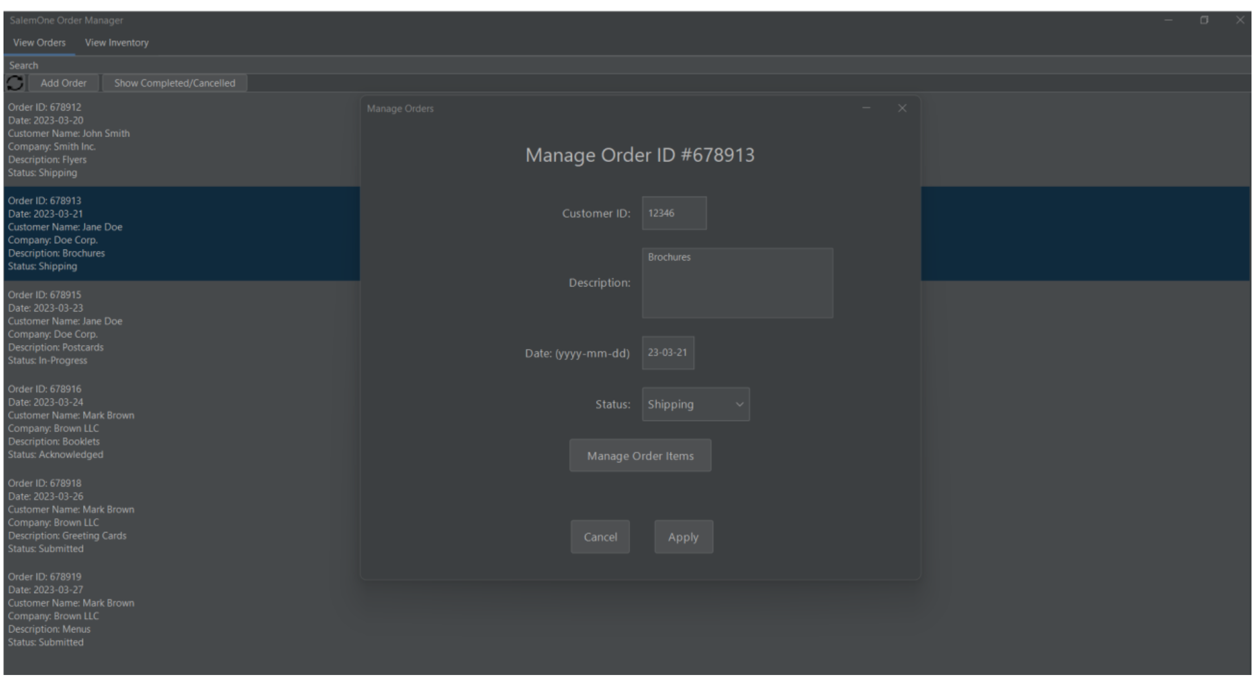
Manage Orders

Selecting an Order

Clicking on an order one time will select the order, allowing you to see the order better and better keep track of it, but clicking an order one time has little purpose otherwise.

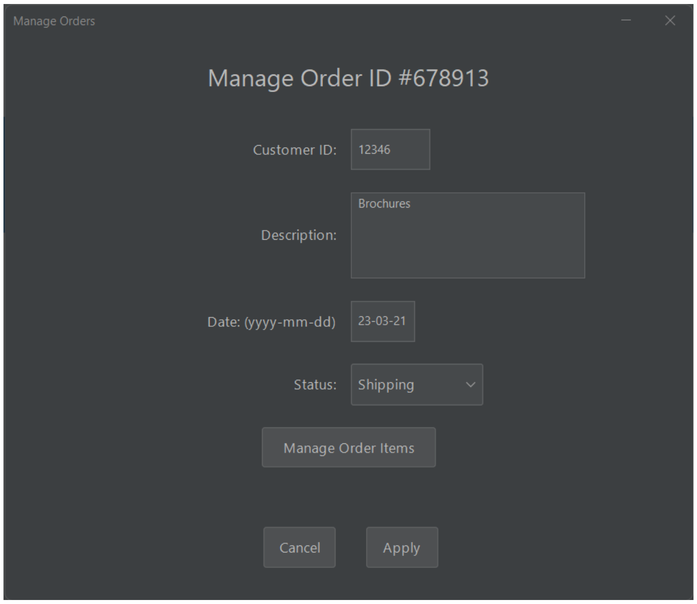


However, double-clicking an order will open up the "Manage Order" screen for that specific order.



Manage Orders Screen

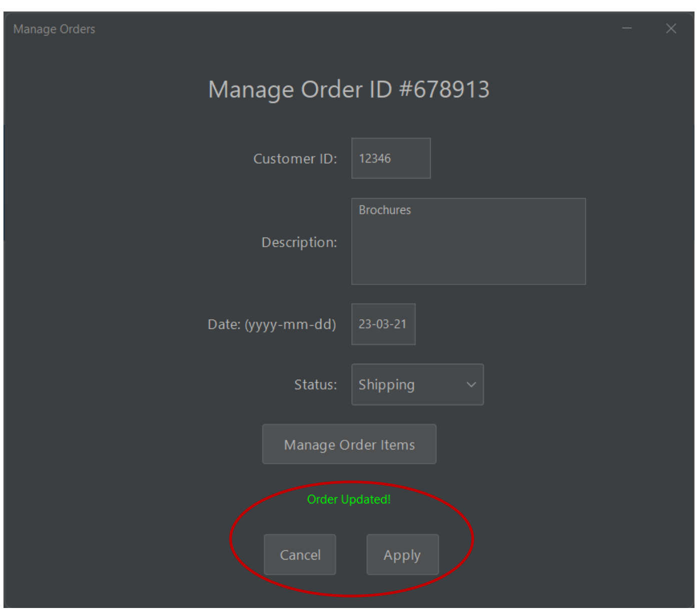
The “Manage Orders” screen will allow you to edit the Customer ID, Description, Date, and Status of the selected order.



After you have made the necessary changes to the order, clicking the “Apply” button will apply the changes to the order in the database.

If successful, a confirmation message will appear. If not, an error message will appear and no changes will be made.

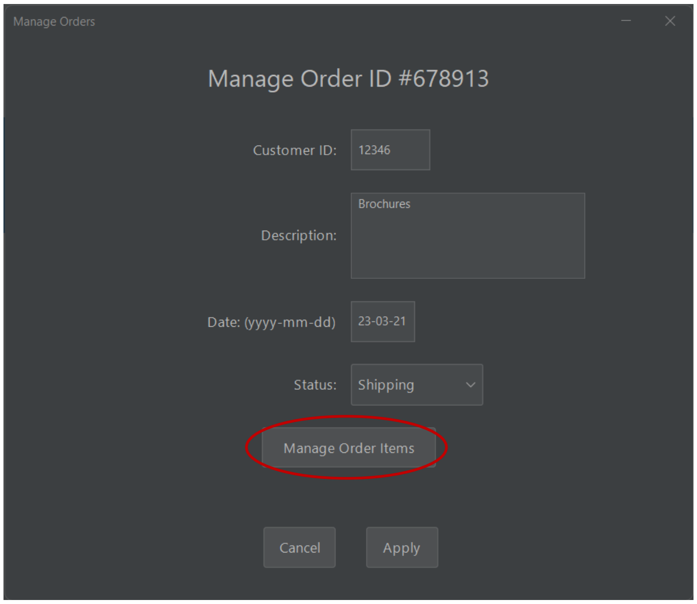
Clicking the “Cancel” button will exit the “Manage Orders” screen and no changes will be made.



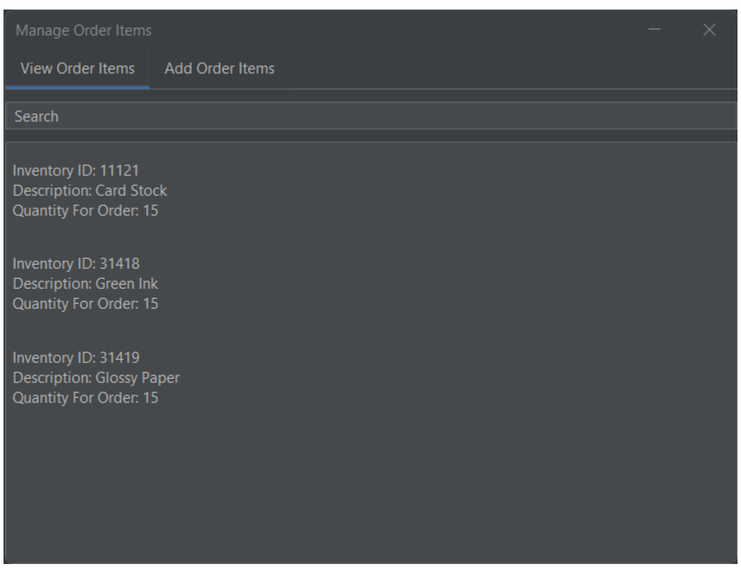
Manage Order Items

Manage Order Items Screen

Once in the “Manage Orders” screen, clicking the “Manage Order Items” button will bring you to the “Manage Order Items” screen for that same order.



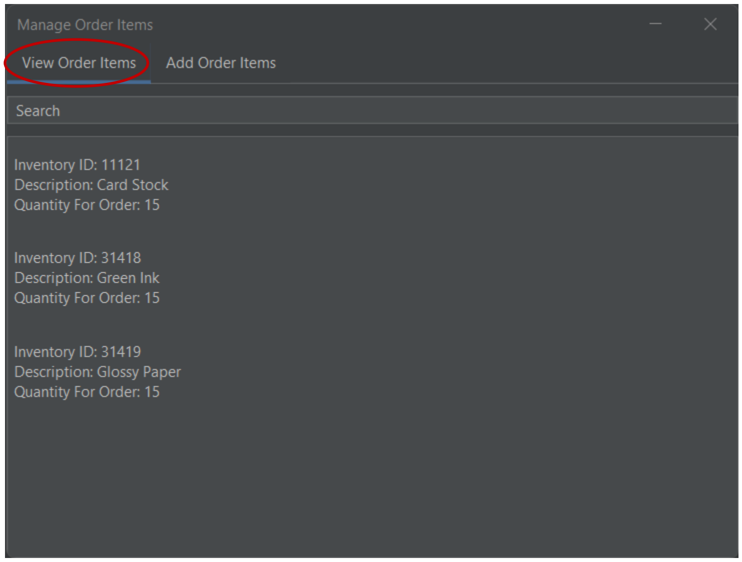
The “Manage Order Items” screen allows you to link specific amounts of specific inventory items to an order.



View Order Items Tab

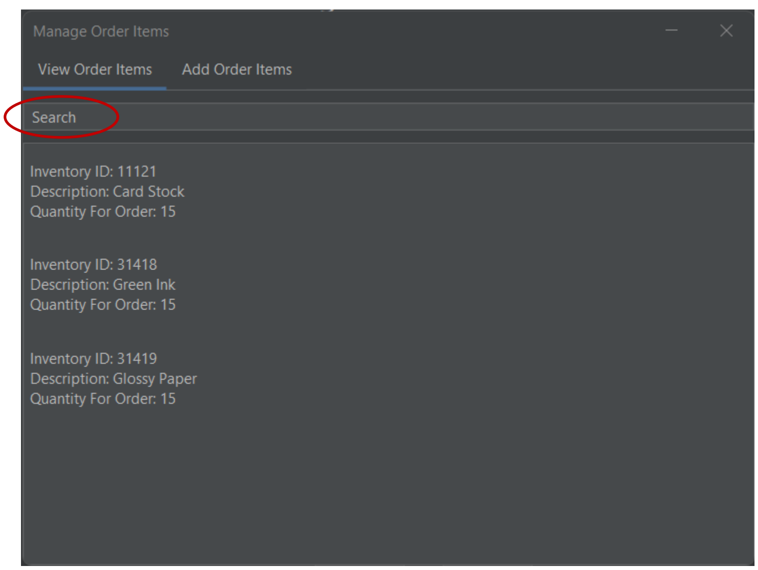
When the "Manage Order Items" screen is first opened, the "View Order Items" tab will be selected and all inventory items currently tied to the order will be shown.

If this screen is not displayed or has been clicked away from, click on the "View Order Items" tab in the top-right of the window to view this page.



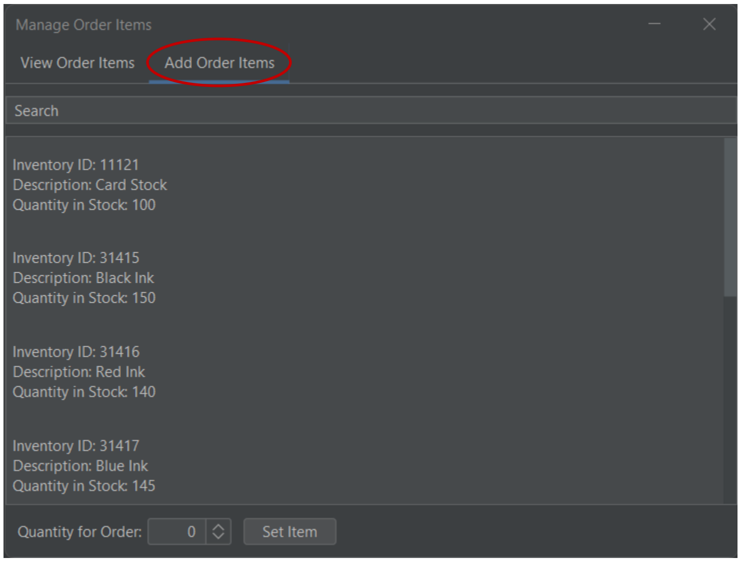
When working with a brand new order, this screen may show no order items, as no order items have yet been added to the order.

The search bar at the top of the screen can be used to search through existing order items by Inventory ID or Description.



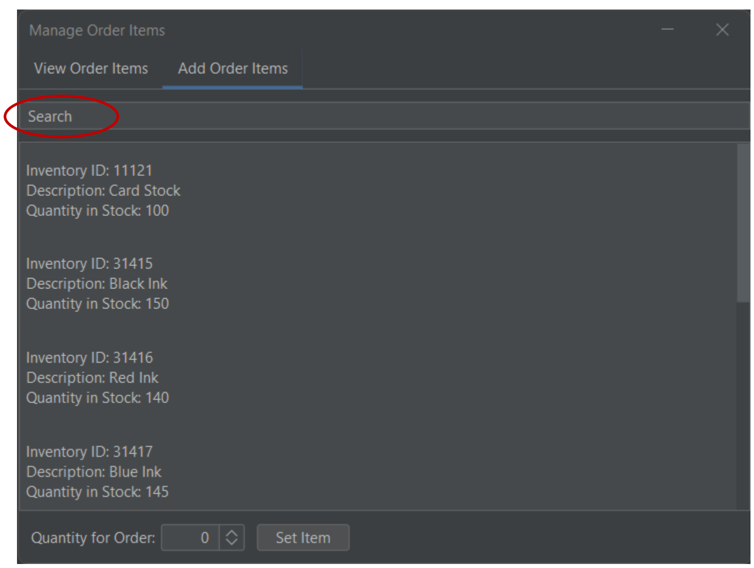
Add Order Items Tab

Clicking on the "Add Order Items" tab will allow you to view the "Add Order Items" page.



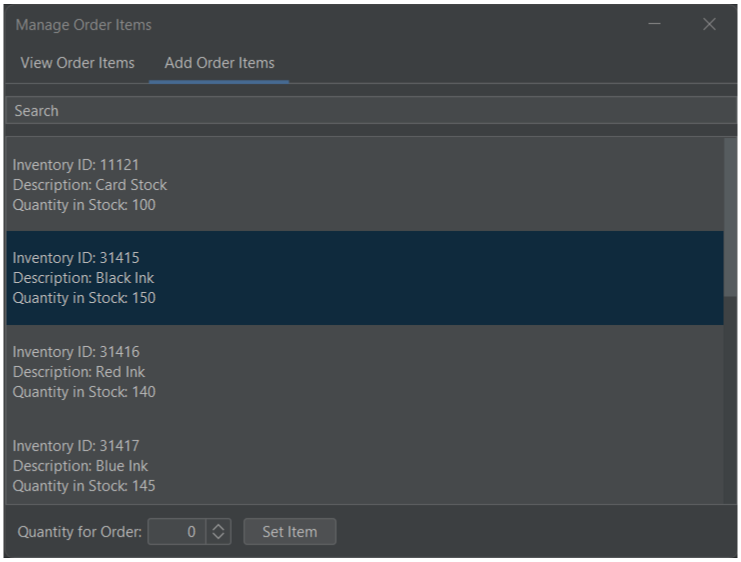
This page will display all current inventory items and allow you to add or update current order items and amounts.

The search bar at the top of the screen can be used to search through existing inventory items by Inventory ID or Description.

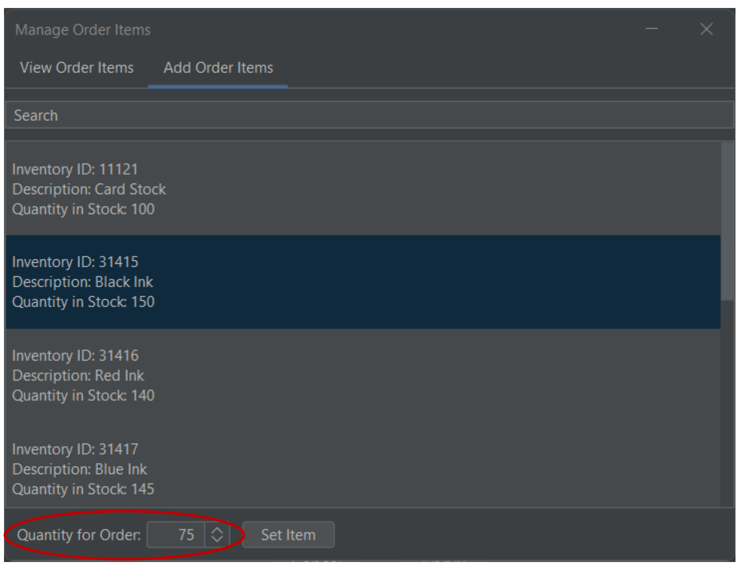


Adding Order Items

First, select the inventory item you want to add to the order:



Next, edit the "Quantity for Order" number at the bottom of the window, either by typing a new number or by using the up or down arrows.

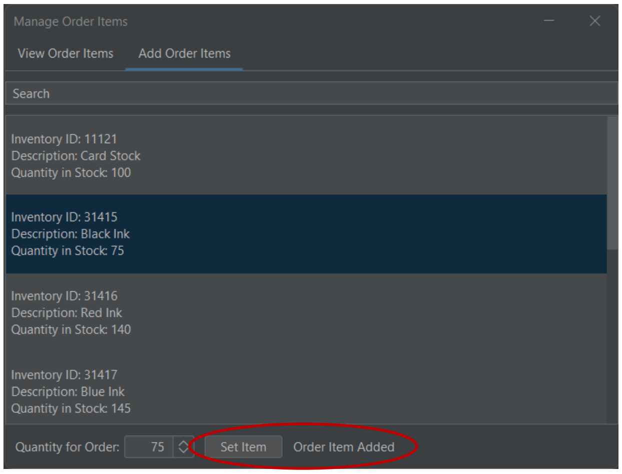


NOTICE: If the number you enter in the "Quantity for Order" box is greater than the quantity in stock for that inventory item, the full quantity in stock will be added as the quantity for the order item instead of the number entered in the "Quantity for Order" box. If the number entered is less than zero, then zero will be entered as the quantity for that order item.

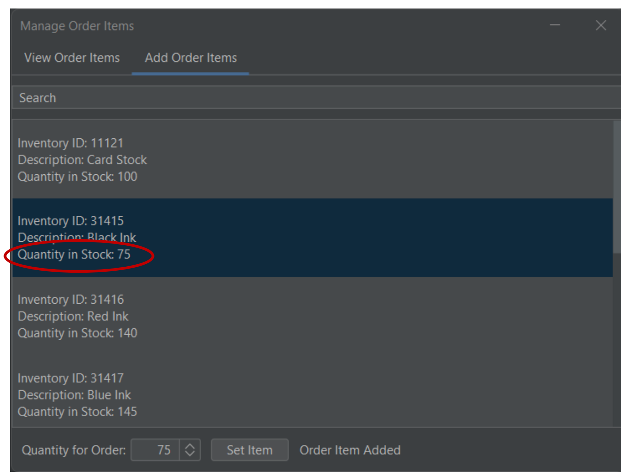
Once the quantity is set, click the “Set Item” button to add the order item.

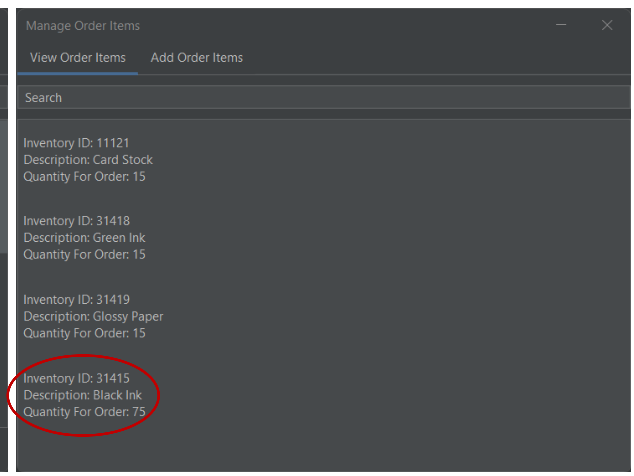
A confirmation message will appear if it was successful, and an error message will appear if not.

Once the order item has been added, the quantity for order will immediately be subtracted from the quantity in stock of the inventory item selected and the order item will be added to the “View Order Items” tab.



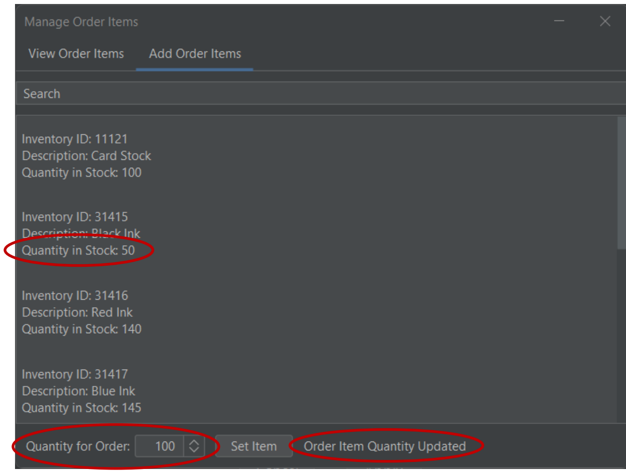
Once the order item has been added, the quantity for order will immediately be subtracted from the quantity in stock of the inventory item selected and the order item will be added to the “View Order Items” tab.

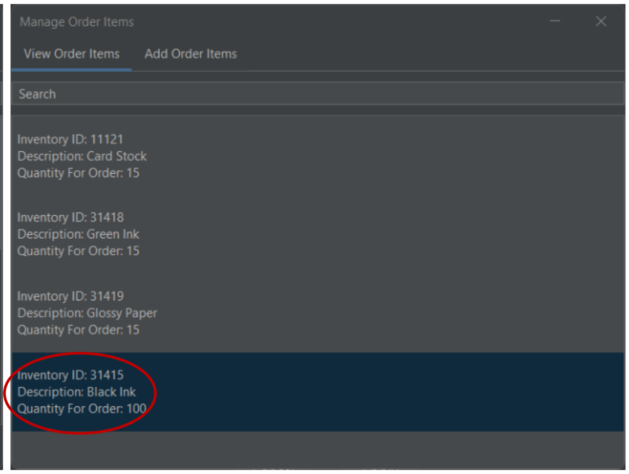




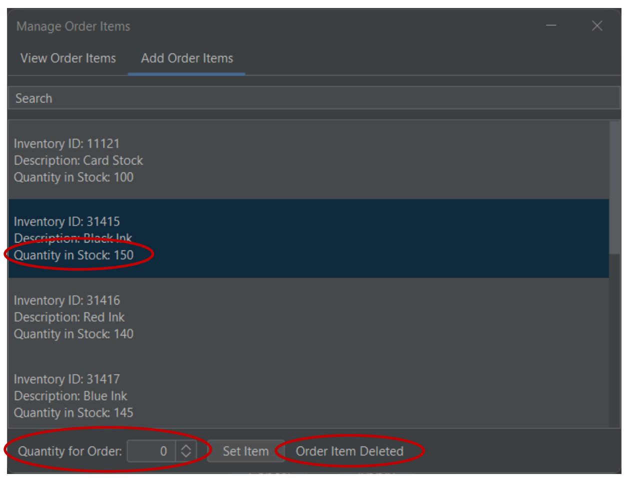
Updating Order Item Quantity

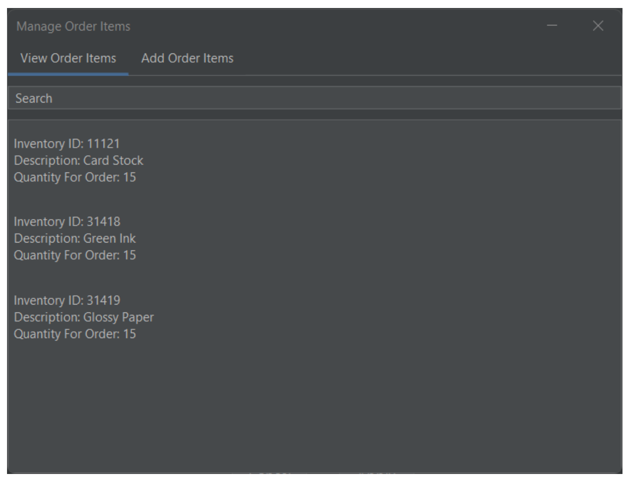
If you set a quantity for an order item that already exists, then the quantity for that order item will be updated to the new quantity and stock will be moved to and from inventory as necessary.





If you set the quantity for an order item that already exists to zero, the order item will be deleted and all stock that was in the order item will be added back to inventory.



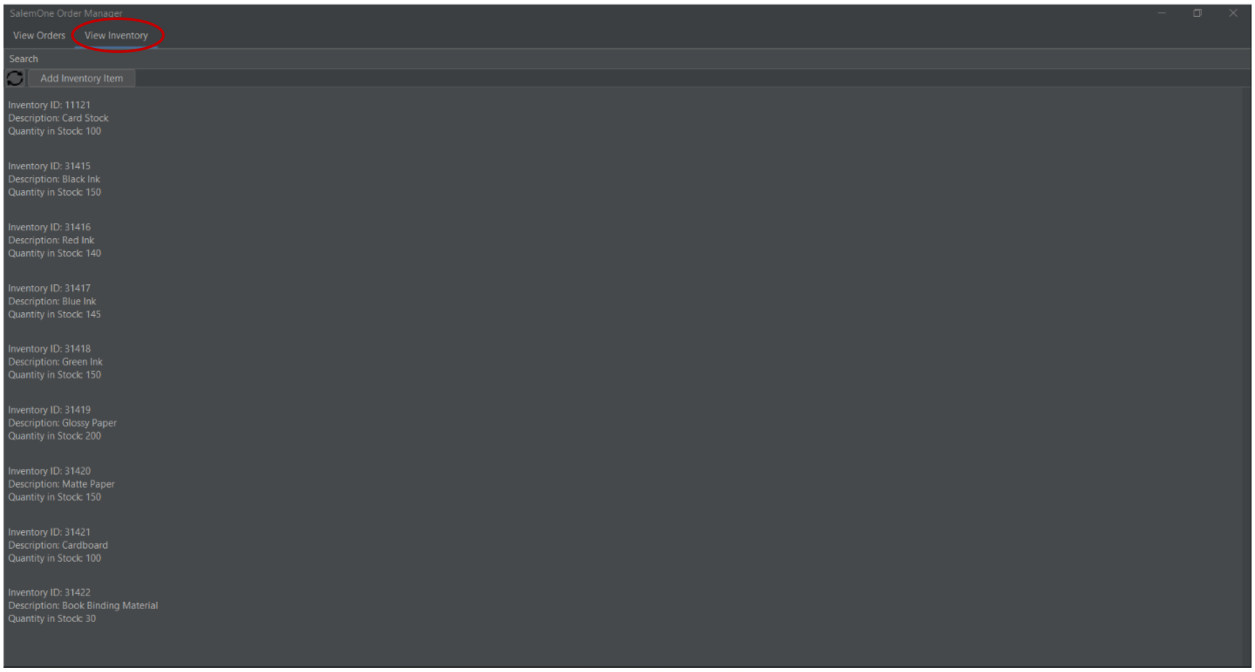


Inventory

View Inventory

View Inventory Tab

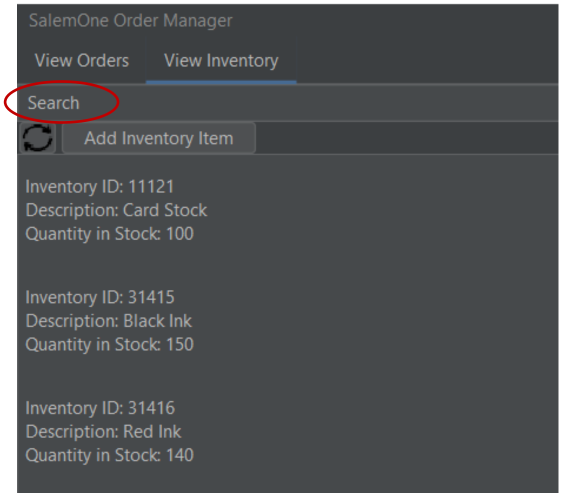
Click on the “View Inventory” tab to view the “View Inventory” screen.



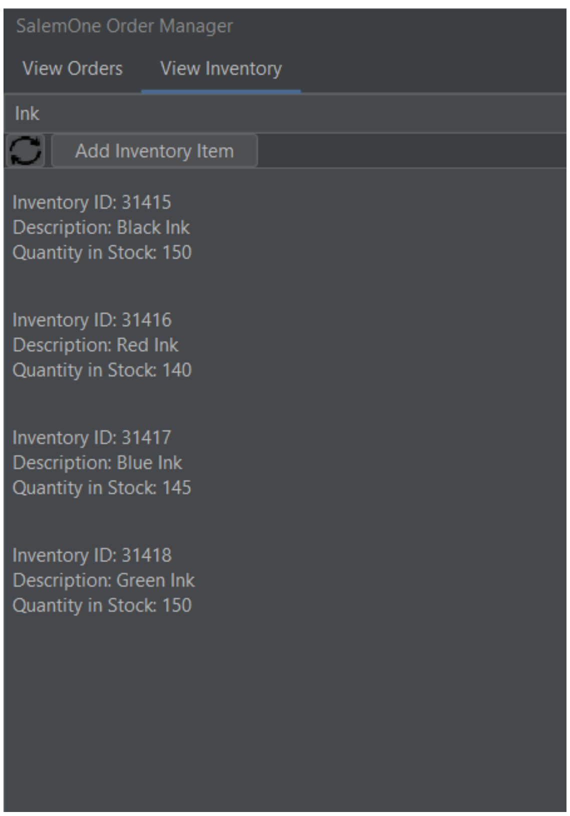
Here you can see all current inventory items as well as their Inventory ID, Description, and current Quantity in Stock.

Search Inventory

You can search through inventory items using the search bar at the top of the screen.



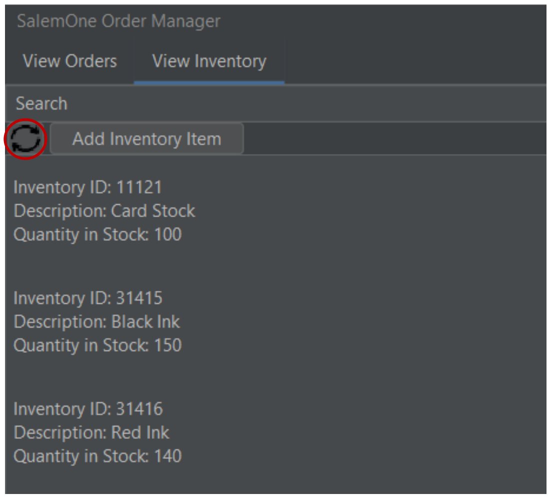
You can search by Inventory ID or Description.



Clearing the search bar will display all inventory items.

Refresh Button

At any point, you can click the refresh button at the top of the page to refresh all inventory items on the "View Inventory" screen.



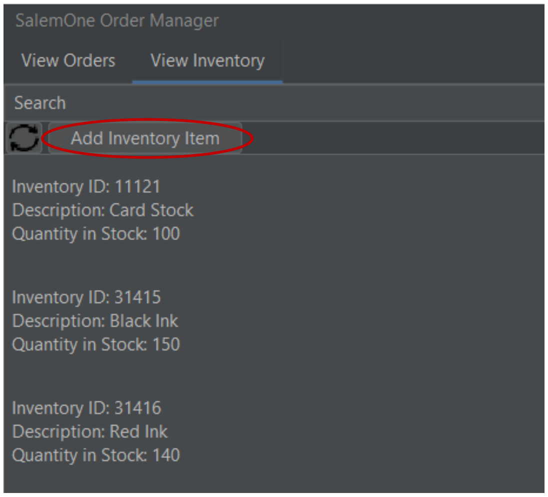
This is especially useful after you have added or updated an inventory item. Clicking the refresh button after making either of these changes will update the list of inventory items to reflect the changes you have made.

Before refreshing the page, any updates to existing inventory items or additions of new inventory items may not be properly displayed and the information may be outdated.

Add Inventory Items

Add Inventory Item Screen

Clicking on the “Add Inventory Item” button in the top right of the “View Inventory” tab will open up the “Add Inventory Item” screen.

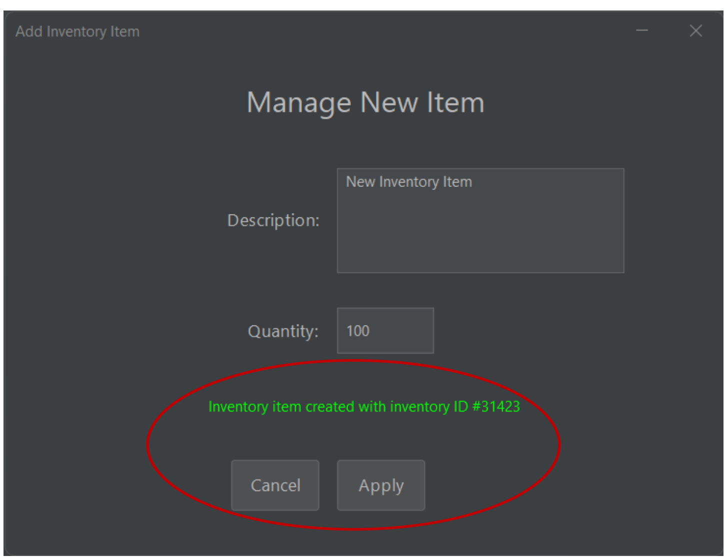


The “Add Inventory Item” screen will allow you to set the Description and Quantity of a new inventory item.

After you have added the necessary data for the inventory item, clicking the “Apply” button will add the inventory item to the database.

If successful, a confirmation message will appear along with the Inventory ID of the new inventory item. If not, an error message will appear and no changes will be made.

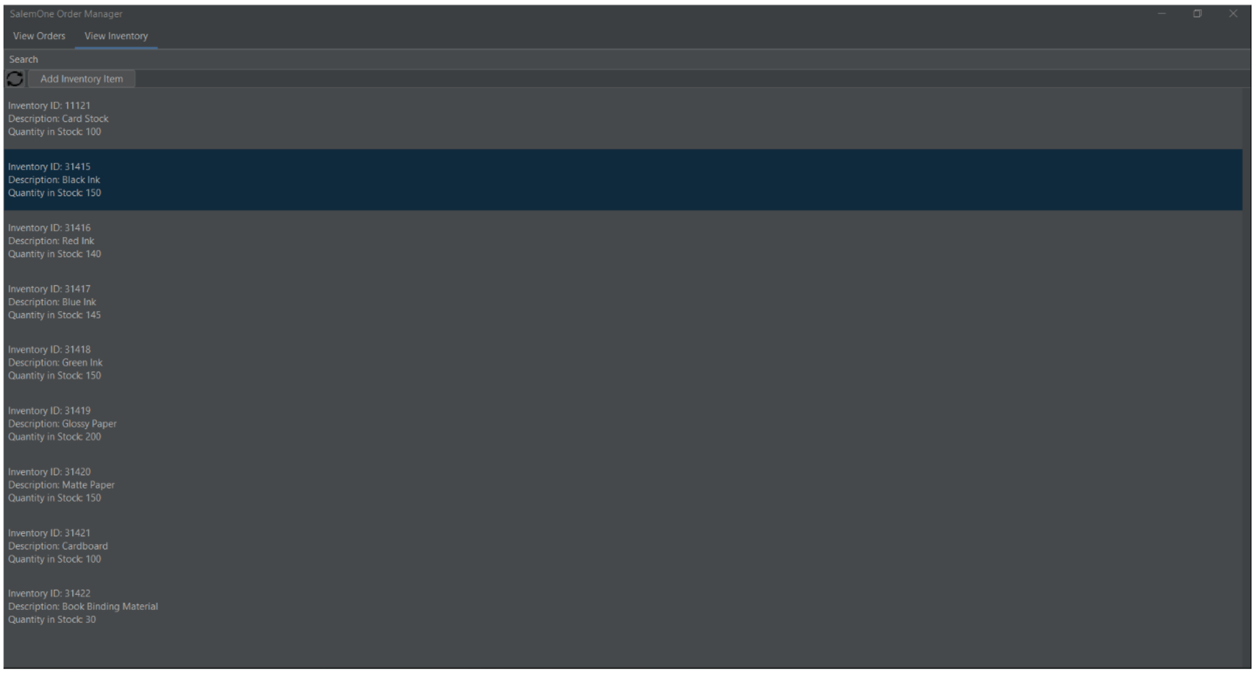
Clicking the “Cancel” button will exit the “Add Inventory Item” screen and no changes will be made.



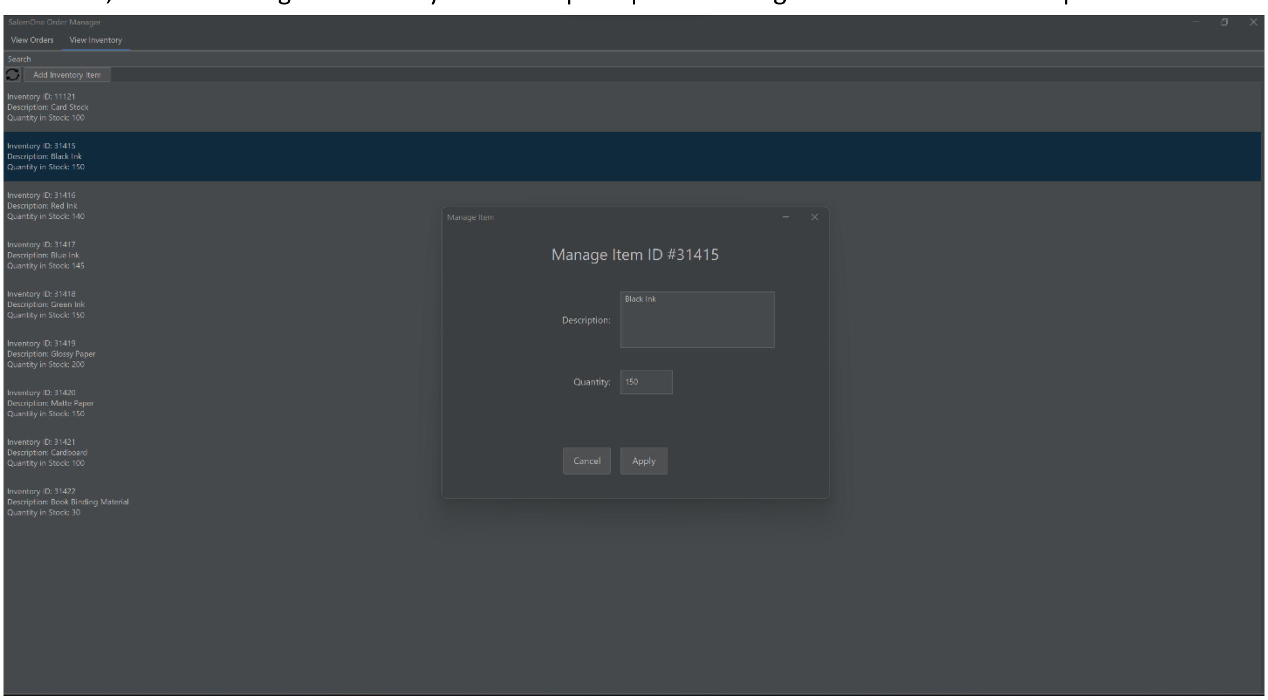
Manage Inventory Items

Selecting an Inventory Item

Clicking on an inventory item one time will select the item, allowing you to see the item better and better keep track of it, but clicking an item one time has little purpose otherwise.

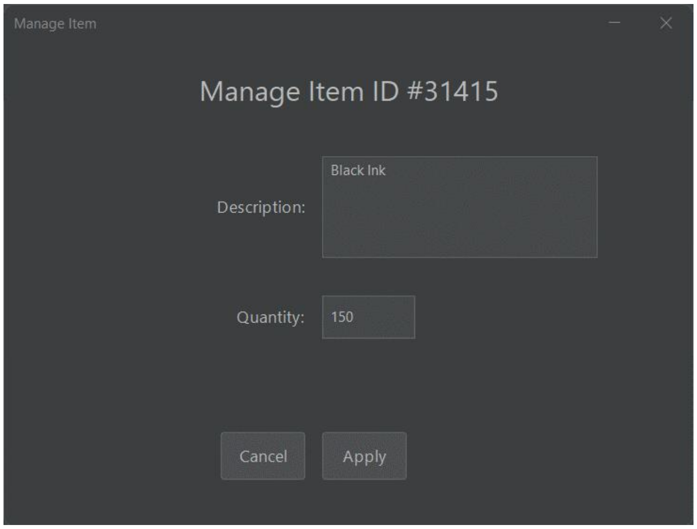


However, double-clicking an inventory item will open up the "Manage Item" screen for that specific item.



Manage Item Screen

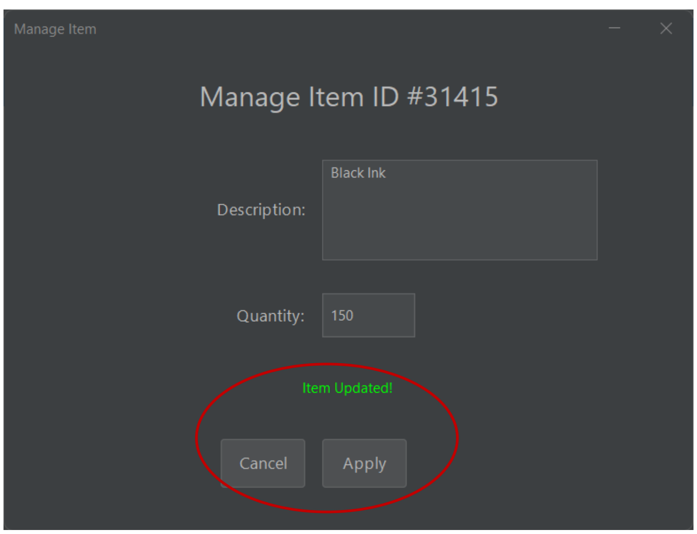
The “Manage Item” screen will allow you to edit the Description and Quantity of the selected item.



After you have made the necessary changes to the item, clicking the “Apply” button will apply the changes to the item in the database.

If successful, a confirmation message will appear. If not, an error message will appear and no changes will be made.

Clicking the “Cancel” button will exit the “Manage Item” screen and no changes will be made.



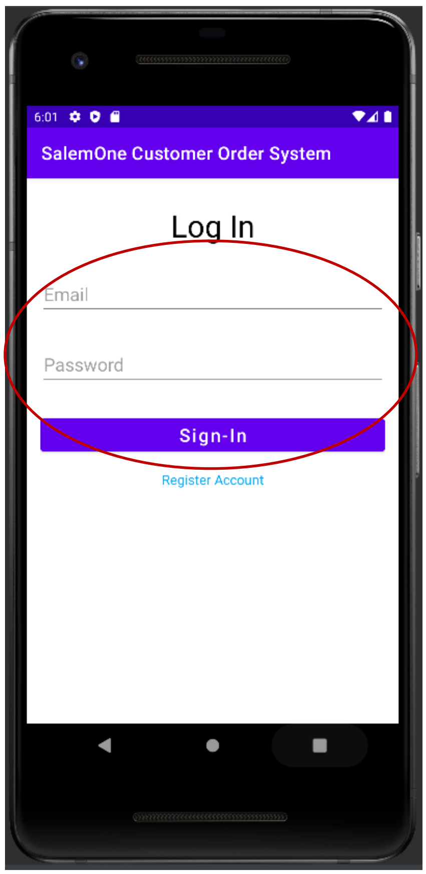
CUSTOMER MOBILE APPLICATION

Account

Log In

Upon opening the application the user will be presented with the “Log In” screen.

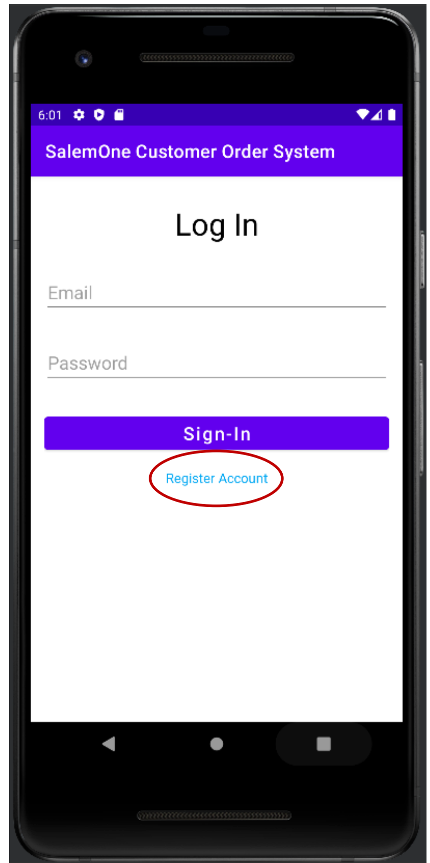
Here the user can enter the email address and password tied to their personal account and click the “Sign-In” button to sign into their personal account.

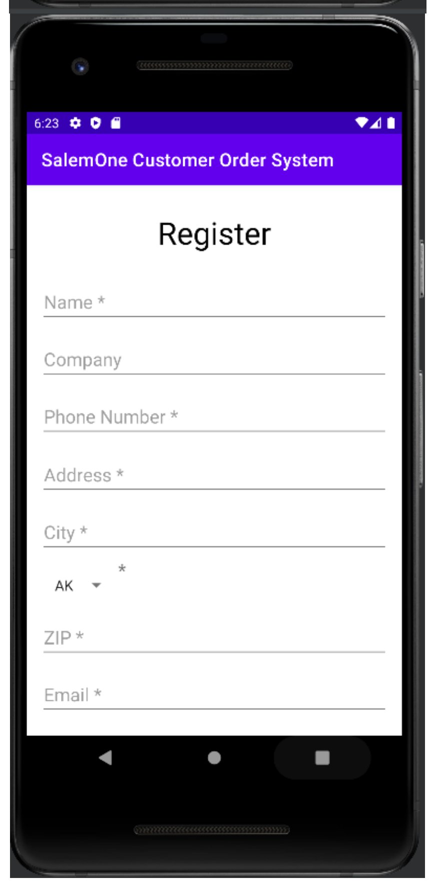


Register Account

New customers without pre-existing accounts will need to make a new account to start placing orders and viewing their personal orders.

Click the "Register Account" text below the "Sign-In" button to open the "Register" screen and register a new account.

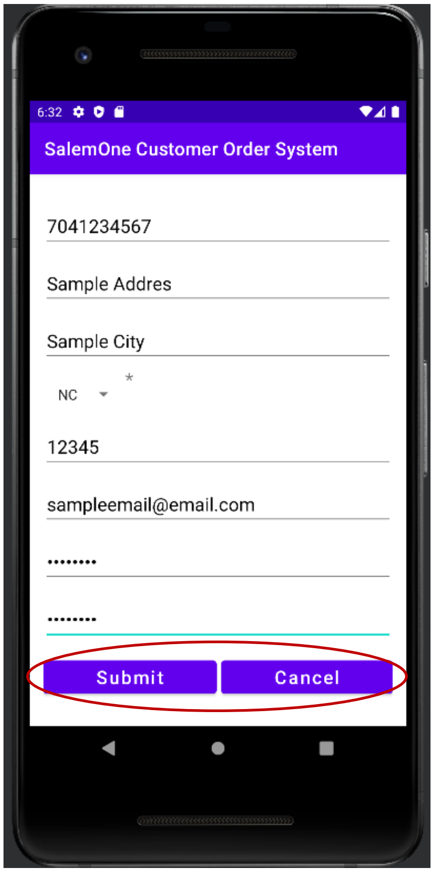




Once at the "Register" screen, enter all the relevant account information into the text fields. Scroll down to view more fields as well as the "Cancel" and "Submit" buttons.

Once done entering all account information, press the “Submit” button to create the new account.

Press the “Cancel” button to simply return to the “Log In” screen without creating an account.



If the account creation was successful, the user will be returned to the “Sign-In” screen.

However, if the user entered invalid information or there was an error in creating the user, then an error message will be displayed and the user will remain on the “Register” screen.

Edit Account Information

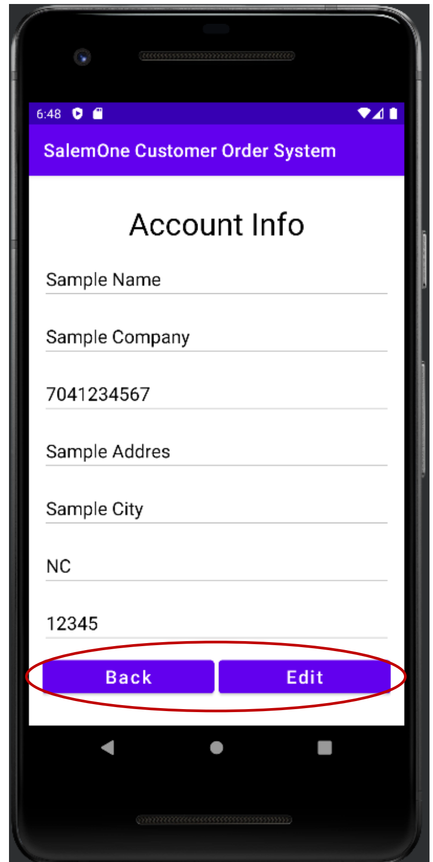
Once signed into an account, press the three dots in the top right corner of the screen to open the menu.

Once the menu is open, press the “Account Info” menu option to open the “Account Info” screen.

The “Account Info” screen will display all account information for the user.

Pressing the “Back” button will return the user back to the “Your Orders” screen.

Pressing the “Edit” button will make all the text fields editable and allow the user to edit all account information.

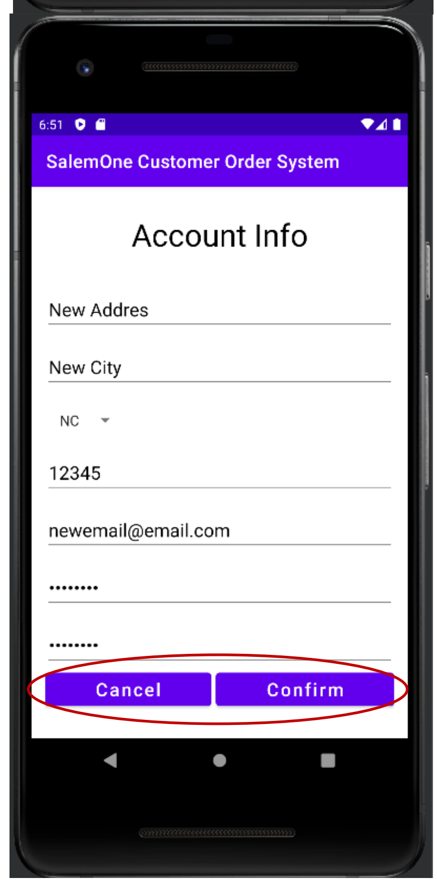


Once any necessary edits have been made, press the “Confirm” button to save account changes.

If saving the new account info is successful, a confirmation message will appear on screen and the “Account Info” screen will go back to simply displaying the account information.

If saving the new account info fails, a relevant error message will be displayed and the “Account Info” screen will remain editable.

Pressing the “Cancel” button will return the “Account Info” screen back to simply displaying the account information and no changes to account information will be made.



Sign Out

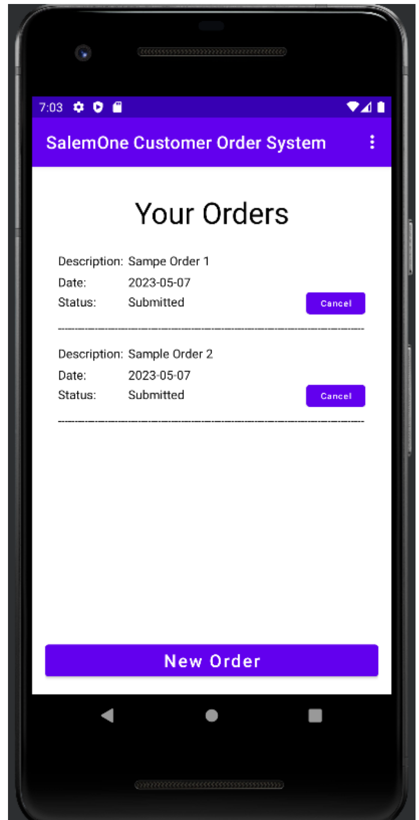
Once signed into an account, press the three dots in the top right corner of the screen to open the menu.

Once the menu is open, press the "Sign Out" menu option to return to the "Log In" screen.

Orders

View Orders

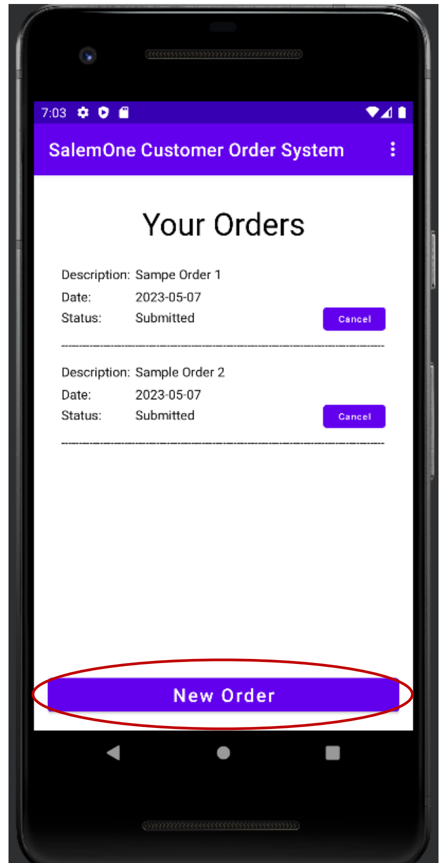
Once logged into an account, all orders linked to that account will be displayed for the user.



When logging into a new account, the account will have no orders linked to it, so a message will be displayed telling the user to create their first order.

Add New Order

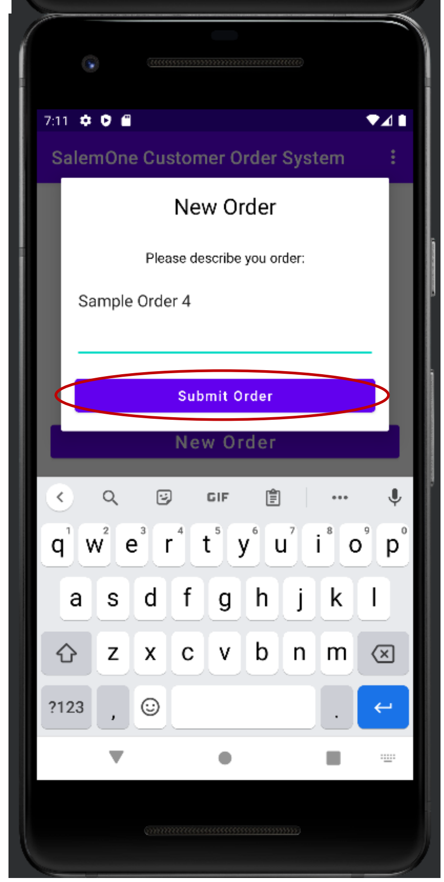
To add a new order, press the "New Order" button at the bottom of the "Your Orders" screen.



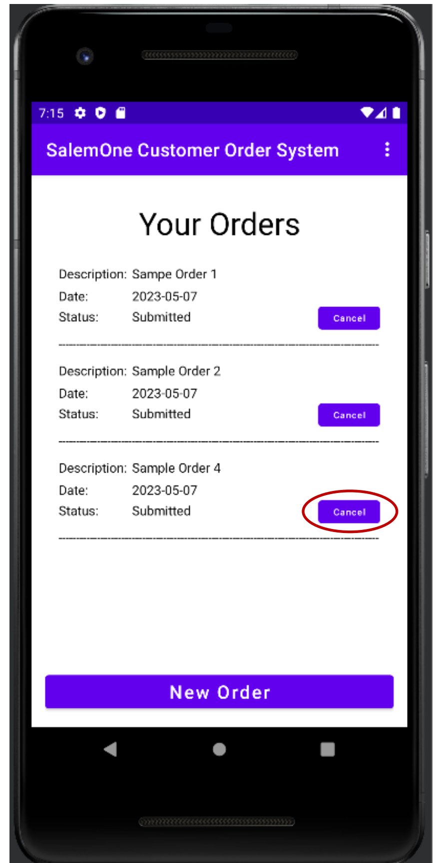
This will display a dialog box where the user can enter the details of their new order.

Click the "Submit Order" button to create the new order.

The new order will immediately be added to the "Your Orders" screen.



Cancel Order

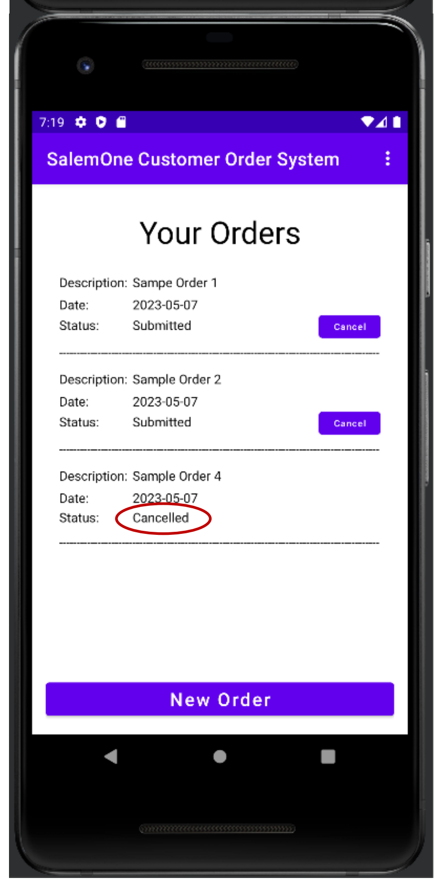


To cancel an order, press the “Cancel” button connected to the order that must be cancelled.

Once pressed, a dialog box will be displayed asking if you are sure you would like to cancel the order.

If the user presses “Yes”, the order will be cancelled.

If the user presses “No”, no changes are made.



Once an order has been cancelled, the status of the order is immediately updated to “Cancelled” and the “Cancel” button is removed.