

User's Manual

What is the point of sales

Introduction

What is the Point of Sales? terminal, hereby referred to as the POS, is a point of sale terminal developed by the genius team of Clayton Barber, Brandon Barton, Max Hasselbusch , Eric Metcalf, and Declan Brennan. It is a software deployable package, allowing the end consumer to use hardware they already own. This manual serves to educate consumers about the core functionality with extreme details. If the user has any problems with the program please email support@whatisthepointofsales.com.

Scope and purpose

The purpose of this software is to give cashier's an easy way to perform basic functionalities that would be needed in a sales system. We built a system that would allow the user to be able to manage the users of the system, perform sales, rentals, returns along with being able to run on many different systems. This manual will come with screenshots on how to best use the system and give the results that we want.

System Overview

The system is a java program that needs to be installed on your computer. There is also an external database that the user is able to input and automatically updates. There will be an installation section with detailed instructions on how to do it. The system does not require much power thus any machine that can run java 7 should be able to run the software

Table of Contents

Introduction	1
Scope and Purpose	1
System Overview	1
Manual Organization	1
System Summary	3
System Configuration	3
User Access Level	3
Contingencies	3
How To use	4
Installation	4
GUI	4
Logging In	4
Major Functions	5
User Management and Administrative Features	5
Process Sale	11
Return	14
Rental	16
Offline Usage	20
Logging out of the System	22

System Summary

System configuration:

The system is written in java and can be executed through running the executable wpsmate.exe. The system takes the user through a simple process to implement a sale or return. The user can also manage users. As far as system requirements, there are few. The system that you are running must have greater than java 8. The system uses an Oracle/MySQL database that allows value to manage the different users and perform basic functionality that will be defined later on in this document. As for system requirements, the user only needs to have a computer that runs java 7.

User Access Level:

The user access level is defined by the different value at which the user has permission to access. With each license of the software, there will be one value that is added to the database. This will allow the user to login and establish all the different users they want to. Based on the different user access levels, the user will be able to perform different functions. For example, if the user is an admin they will be able to access the user accounts. All of this information will become much more transparent with all the different examples.

Contingencies:

The POS system is able to operate when the internet system goes out. Similarly, the system is also able to operate locally if there is no power to the system. This contingency plan is shown in the section of the manual that address the offline use.

Another contingency plan that we have is that a manager can go in and override a transaction or update the databases inventory. This allows the users to successfully update this information in an easy way especially if the system crashes in the middle of updating the database. These different transactions are demonstrated in the administrative functionality. In any other sources of major failures please report the bugs to

bug@whatisthepointofsales.com. We are devoted to making sure that the customer is receiving all the information needed to have a successful piece of software.

How to use

Installation:

In order to install the program, one has to make sure they have installed java 7. After the user has correctly installed the program, they need to download the different jar file. Once the user has downloaded the the result, then they need to run the makefile. This will automatically install the software. Next the user can run the executable. As for now the program only runs on macs.

Graphical User Interface:

The Graphical User interface is self explanatory to use. We will go into much more depth below while stepping through the program. If the description below is not sufficient, please email support@whatisthepointofsales.com.

Logging In:

To login into the system, start the executable. Here are the steps needed to execute the functions. See **Figure 1**

Step 1: Launch executable.

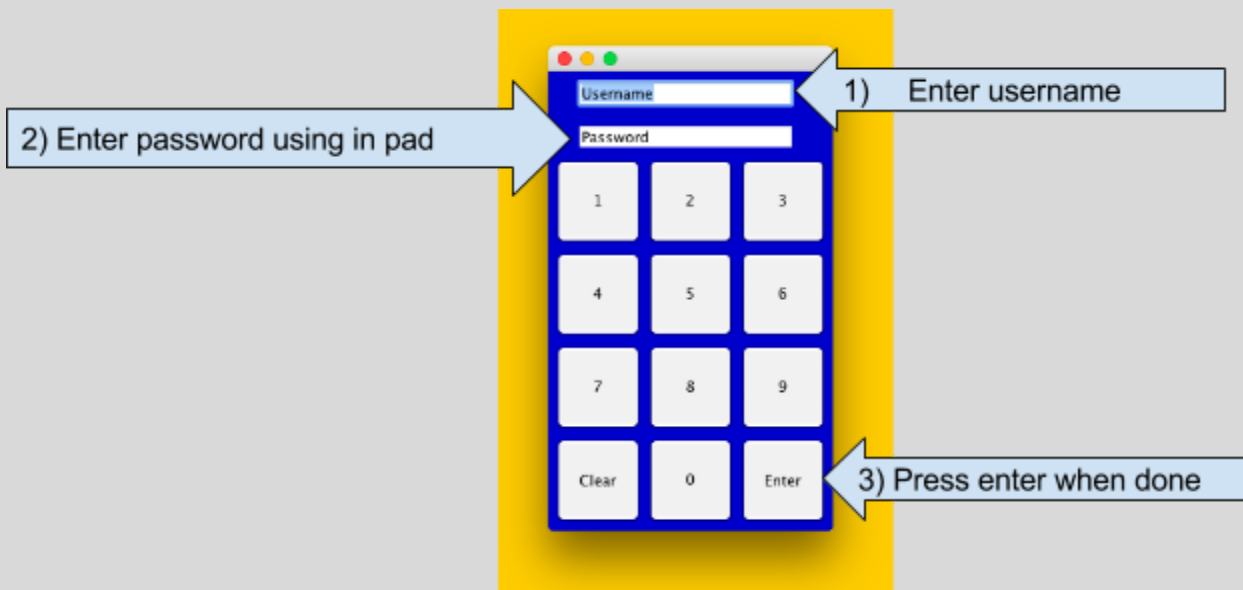
Step 2: Enter user ID. These are usernames that are declared in the database. In order to insert or create new logins look into the readme for login credentials.

First the user should enter their username then click the correct buttons. This will prevent computers from using the system.

Step 3: Enter the login pin.

Step 4: Press enter.

Figure 1

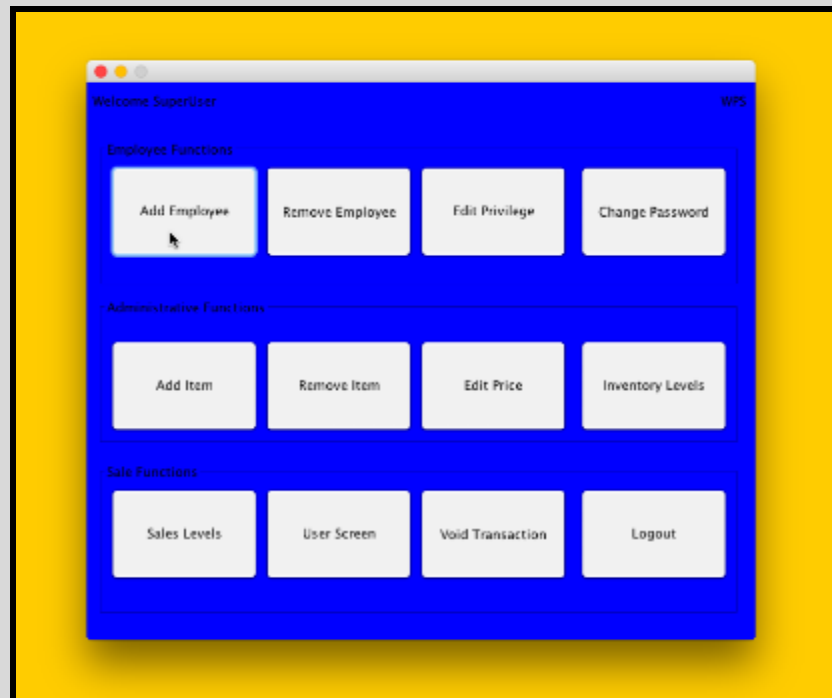


Major Functionality

User Management and Administrative Functionality:

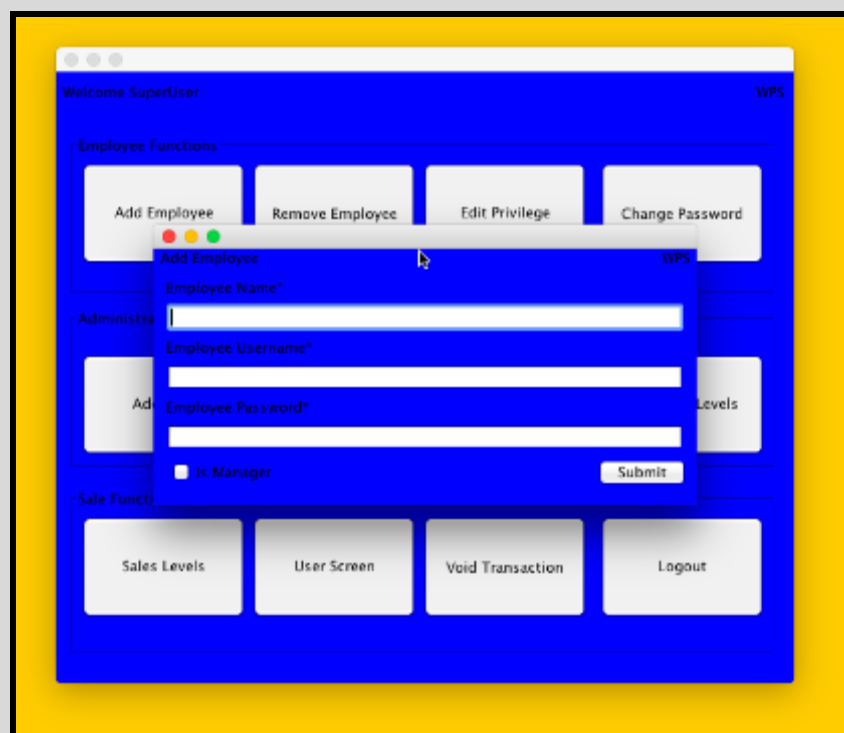
User management on our POS system is implemented in that certain users of the system have the ability to add and remove others. Specifically, employees (who are predesignated within the system) can add and remove other employees, and users are capable of adding their information to the database. Users are either new by default or are returners, while employees can be added by other employees after 1.) after a designated employee logs into the system with authenticated credentials, and 2.) a new username and PIN is provided for the new user. The new user will then be granted access to the POS system using these credentials. Furthermore, the new user can also be removed, after which their credentials will no longer be accepted by the system.

Figure 2



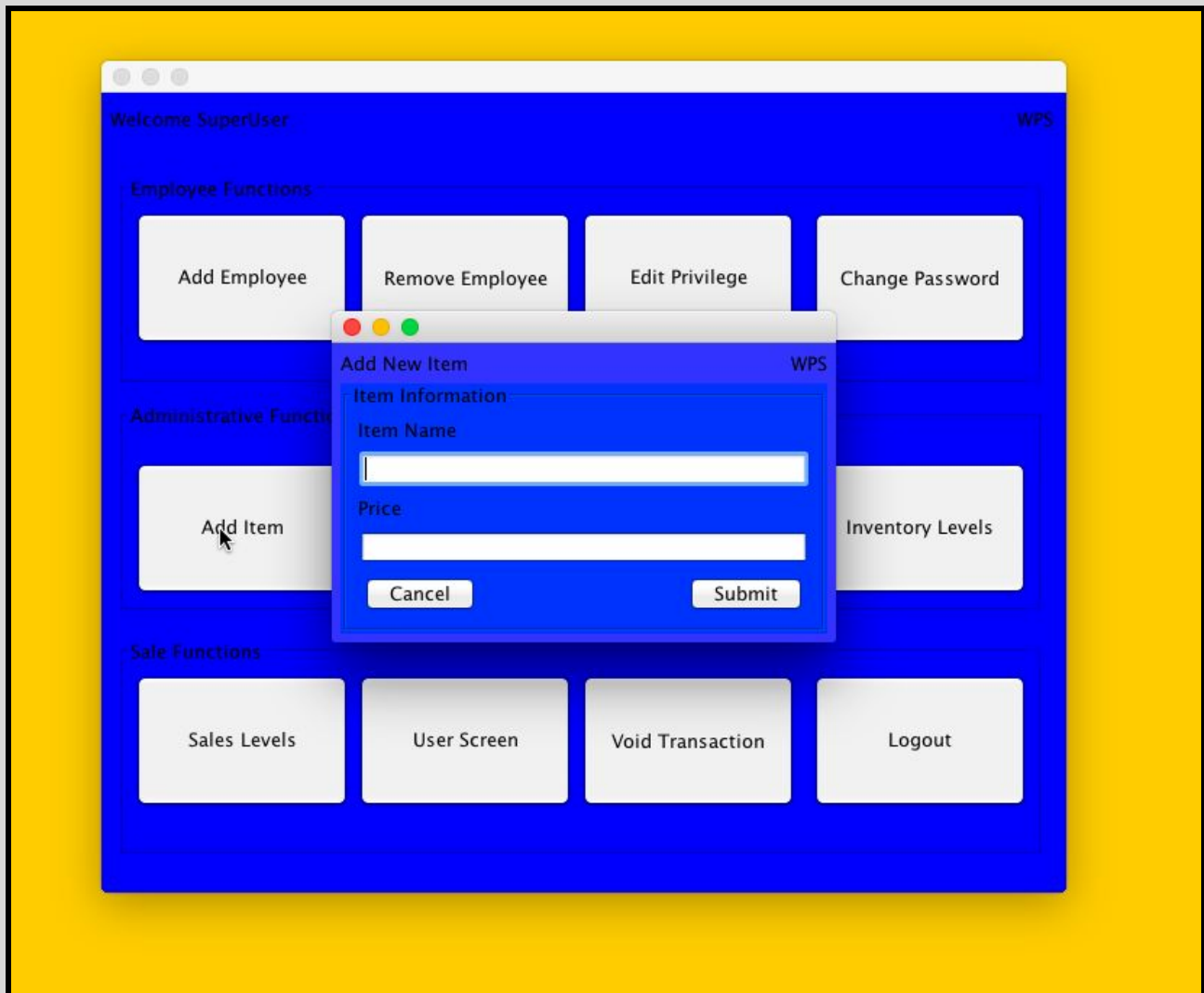
This is the administrative screen that shows all the different functionalities. Each of the gray boxes are buttons that link to different features. We will step through and show the result of running each of these features.

Figure 3



Feature one: Adding and removing employees. The user needs to input a unique name and username for the employee. They are also able to check the box, is manager to give this user administrative privileges. After the user is done they should hit submit and they will be able to update the system. Remove employee is similar so we will not go through and describe that.

Figure 4



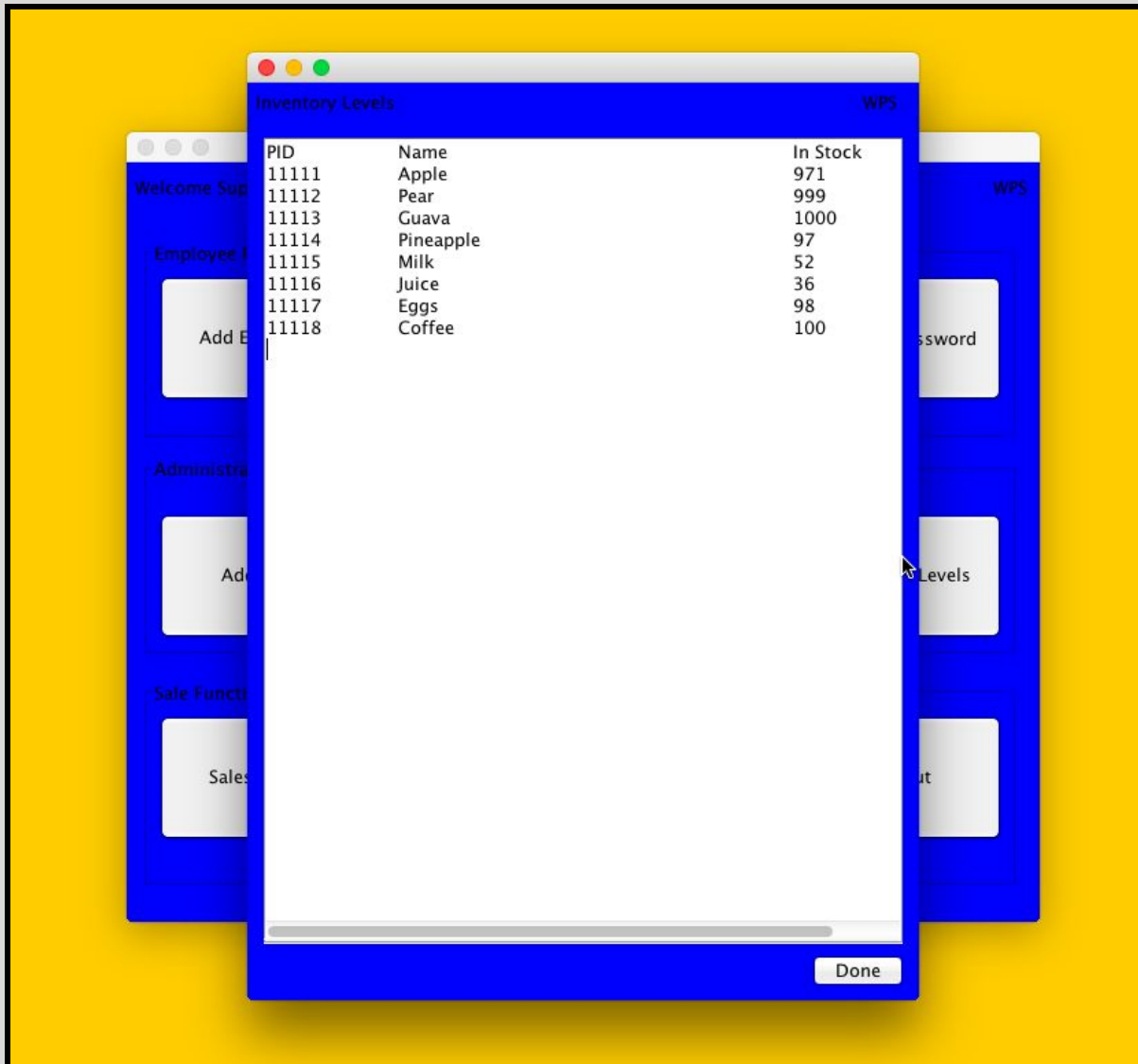
When “Add Item” is selected, this menu screen is opened and the user will have the option to enter an item name and price. When submit is selected, the changes will be committed to the system. Remove Item is very similar so we will omit those for now.

Figure 5

The screenshot displays a web application interface for a 'SuperUser'. The main window has a blue background. At the top, it says 'Welcome SuperUser' on the left and 'WPS' on the right. Below this is a section titled 'Employee Functions' which contains four white buttons. The 'Change Password' button is selected and highlighted. This leads to a 'Change Password' screen, also with a blue background and a white title bar. It features a section titled 'Employee Information' with four input fields: 'Username', 'Employee Password', 'New Password', and 'Re-Enter New Password'. A 'Submit' button is located to the right of the 'Re-Enter New Password' field. At the bottom of the screen, there are four white buttons: 'Sales Levels', 'User Screen', 'Void Transaction', and 'Logout'.

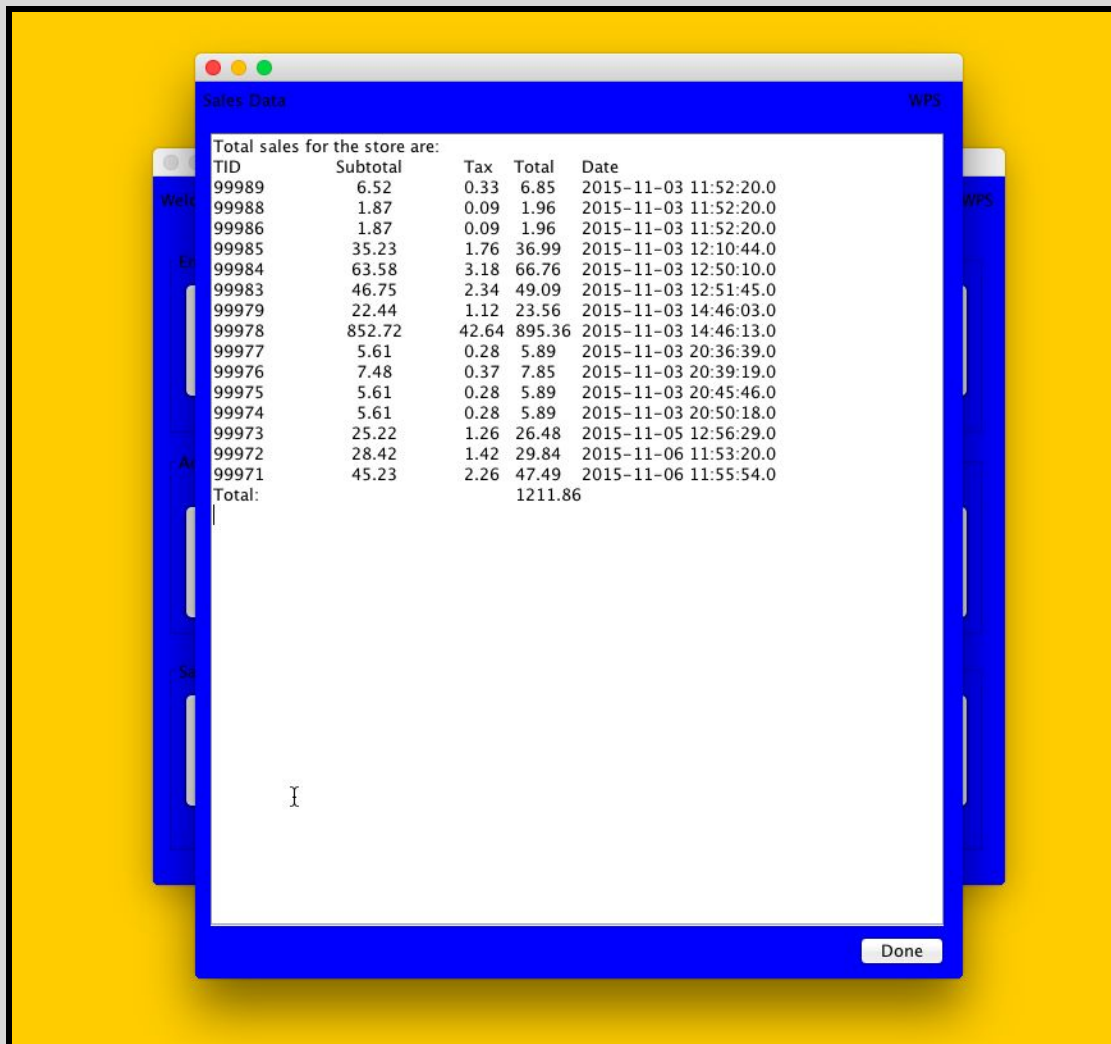
Another option provided by user management is the ability to change their password. When the “Change Password” button is selected, the user will be prompted by this screen in which they may enter the username and original password tied to their account, and then enter a new password which they must confirm. The change will be committed to the system if all of the information provided is correct.

Figure 6



Upon clicking on the “Inventory Levels” button, the user will be brought to the screen shown above, in which he/she may view the current items available in according to the system. The items are arranged by their Product ID numbers (PIDs), followed by their names and quantity in stock. When the user is satisfied, he or she may click the “Done” button in the lower right-hand corner of the window to return to the Employee home screen.

Figure 7



Total sales for the store are:

TID	Subtotal	Tax	Total	Date
99989	6.52	0.33	6.85	2015-11-03 11:52:20.0
99988	1.87	0.09	1.96	2015-11-03 11:52:20.0
99986	1.87	0.09	1.96	2015-11-03 11:52:20.0
99985	35.23	1.76	36.99	2015-11-03 12:10:44.0
99984	63.58	3.18	66.76	2015-11-03 12:50:10.0
99983	46.75	2.34	49.09	2015-11-03 12:51:45.0
99979	22.44	1.12	23.56	2015-11-03 14:46:03.0
99978	852.72	42.64	895.36	2015-11-03 14:46:13.0
99977	5.61	0.28	5.89	2015-11-03 20:36:39.0
99976	7.48	0.37	7.85	2015-11-03 20:39:19.0
99975	5.61	0.28	5.89	2015-11-03 20:45:46.0
99974	5.61	0.28	5.89	2015-11-03 20:50:18.0
99973	25.22	1.26	26.48	2015-11-05 12:56:29.0
99972	28.42	1.42	29.84	2015-11-06 11:53:20.0
99971	45.23	2.26	47.49	2015-11-06 11:55:54.0
Total:			1211.86	

Done

Sales Data may be accessed in a manner similar to Inventory data. A corresponding window is opened through which the employee user may view the total sales records processed by the store. As visible above, this information is organized in a LIFO manner in which the most recent transactions appear towards the top. The ID Number, followed by subtotal, tax, and total for each transaction carried out by the system is displayed, and at the end, a grand total (representing the sum of all transaction totals) is given. Similar to when viewing inventory data, the user may click the “Done” button in the lower right-hand corner when satisfied.

Process Sale:

Process Sale is another major use case of the POS system and one of the primary forms of functionality in which customers may interact with the system. In this use case, a customer may log into the system with authorized credentials and browse the store inventory for items. The customer then may elect to purchase these items when they are finished browsing, and that is where this use case is applicable.

Figure 8

The screenshot displays a POS system window titled 'POS'. The main area shows a sale summary with the following details:

What is the Point of Sales
2015/11/18 20:15:11
Thank you

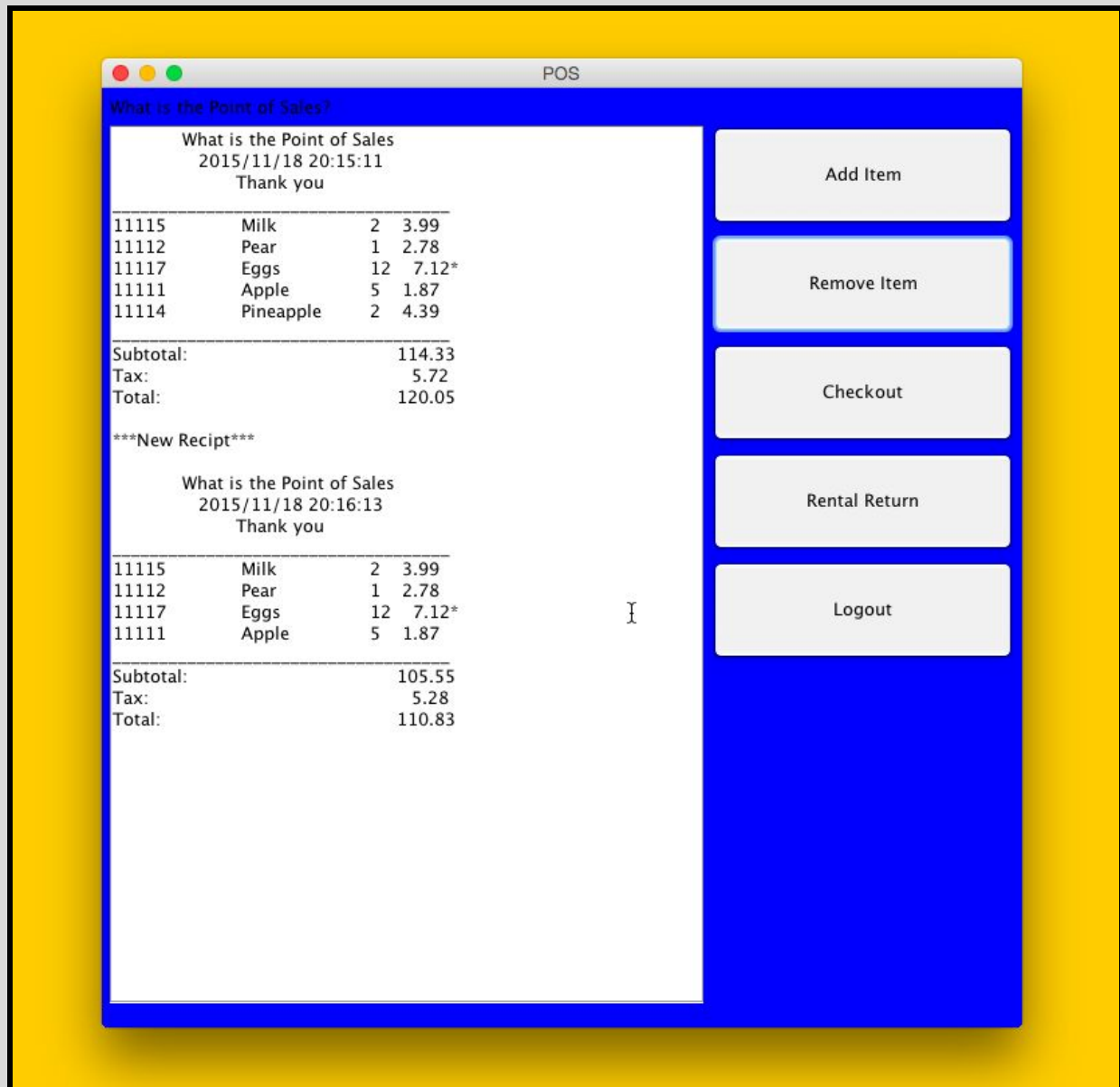
11115	Milk	2	3.99
11112	Pear	1	2.78
11117	Eggs	12	7.12*
11111	Apple	5	1.87
11114	Pineapple	2	4.39

Subtotal: 114.33
Tax: 5.72
Total: 120.05

On the right side of the window, there are five buttons: 'Add Item', 'Remove Item', 'Checkout', 'Rental Return', and 'Logout'. A 'Remove Item' dialog box is open in the foreground, titled 'RemoveItem'. It contains a text field labeled 'Input ItemID' with the value '11114' entered. Below the text field is a checkbox labeled 'Is Rental?'. At the bottom of the dialog box are 'Cancel' and 'OK' buttons.

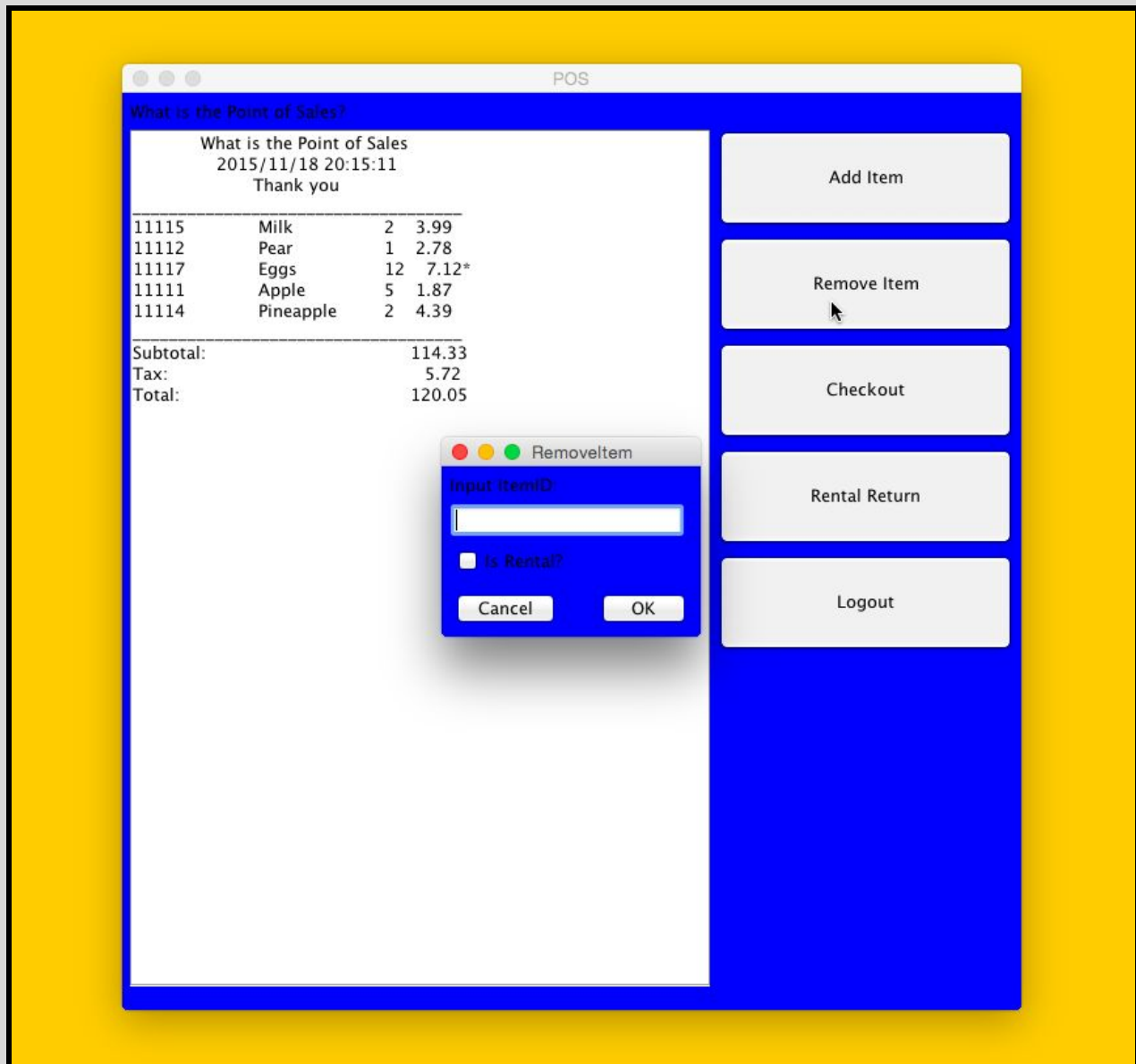
Upon entering the POS system and browsing for items, the customer may enter the ID number of a product that he or she may wish to purchase. The customer has the option to declare this item as a rental or not. In this use case however, we are focusing on non-rental purchases (and this, the check box will be left inactive).

Figure 9



As the customer continues browsing and selecting items, a receipt is constructed and visible on the primary display of the interface. This way, the customer is capable of tracking the incurring price and also the tax that they must pay when he or she completes the purchase.

Figure 10

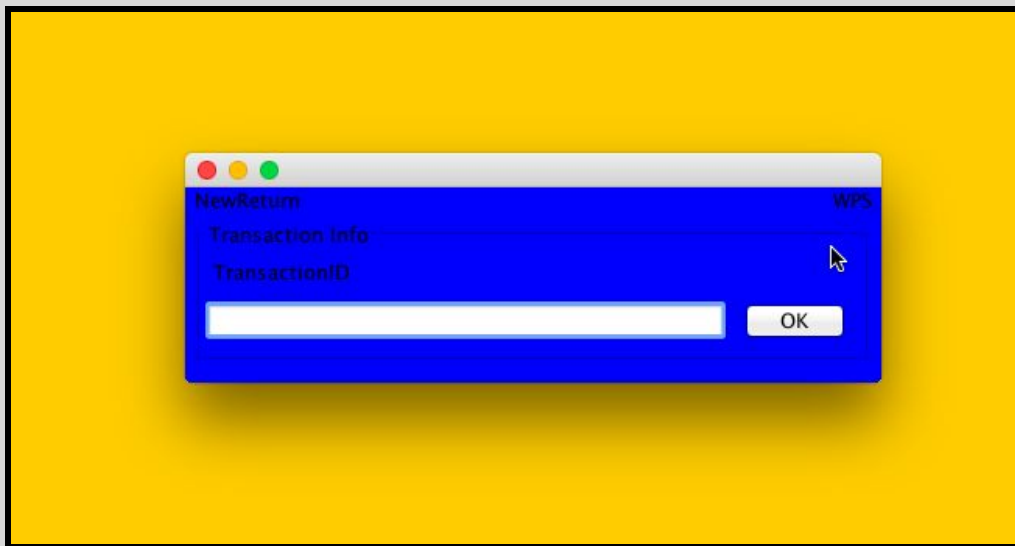


The user also has the option to remove items from his or her cart prior to checkout (via the “Remove Item” button on the right-hand side of the screen, denoted by the cursor location shown in the screen above). A new window will be opened, and this will prompt the user for PIDs of items to be removed. When done successfully, the items requested for removal will be taken out of the cart with the inventory updated.

Return:

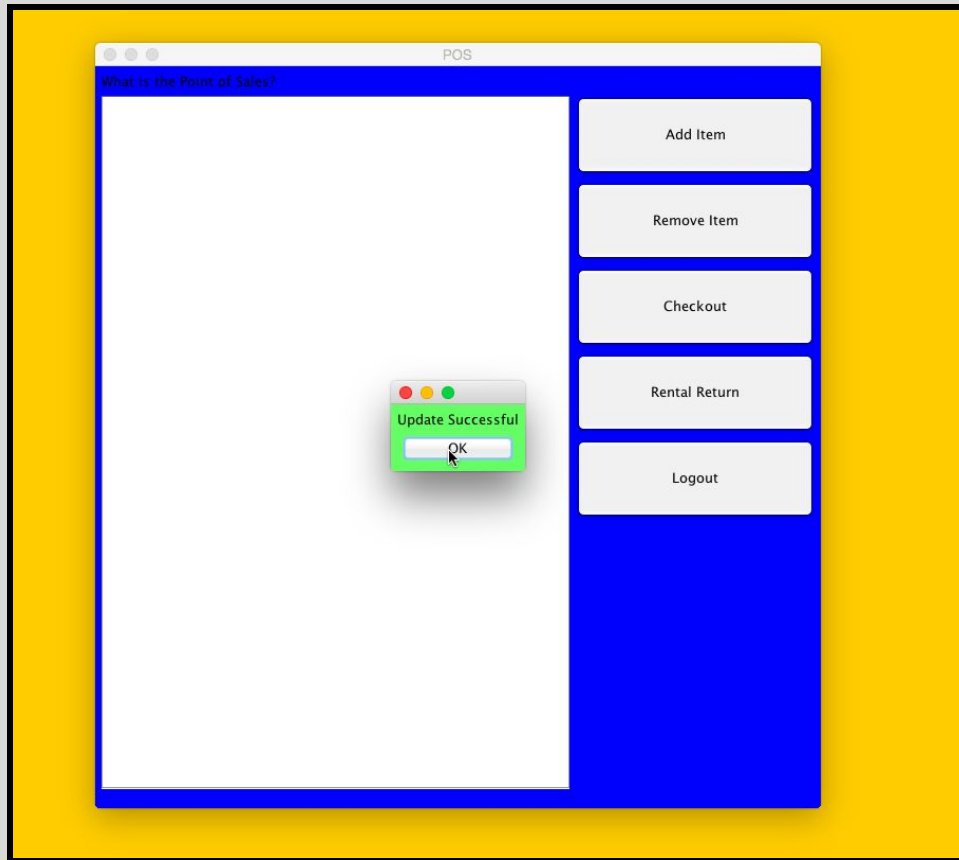
Returning items is another major functionality provided by the POS system. In this use case, which is accessible by customers, the user has the option to return items that he or she may have previously rented. This situation is contingent on two conditions however, as the user needs not only to login with authorized credentials, but it also requires that the user be a returning shopper and have rented items on record in the system's database in order to execute successfully.

Figure 11



In the above image, the user has the option to enter the transaction ID of their rental purchase. This ID number will be verified by the system, and if it corresponds to a valid and active rental carried out by the particular customer, then the return transaction will be completed and the inventory will be updated accordingly.

Figure 12

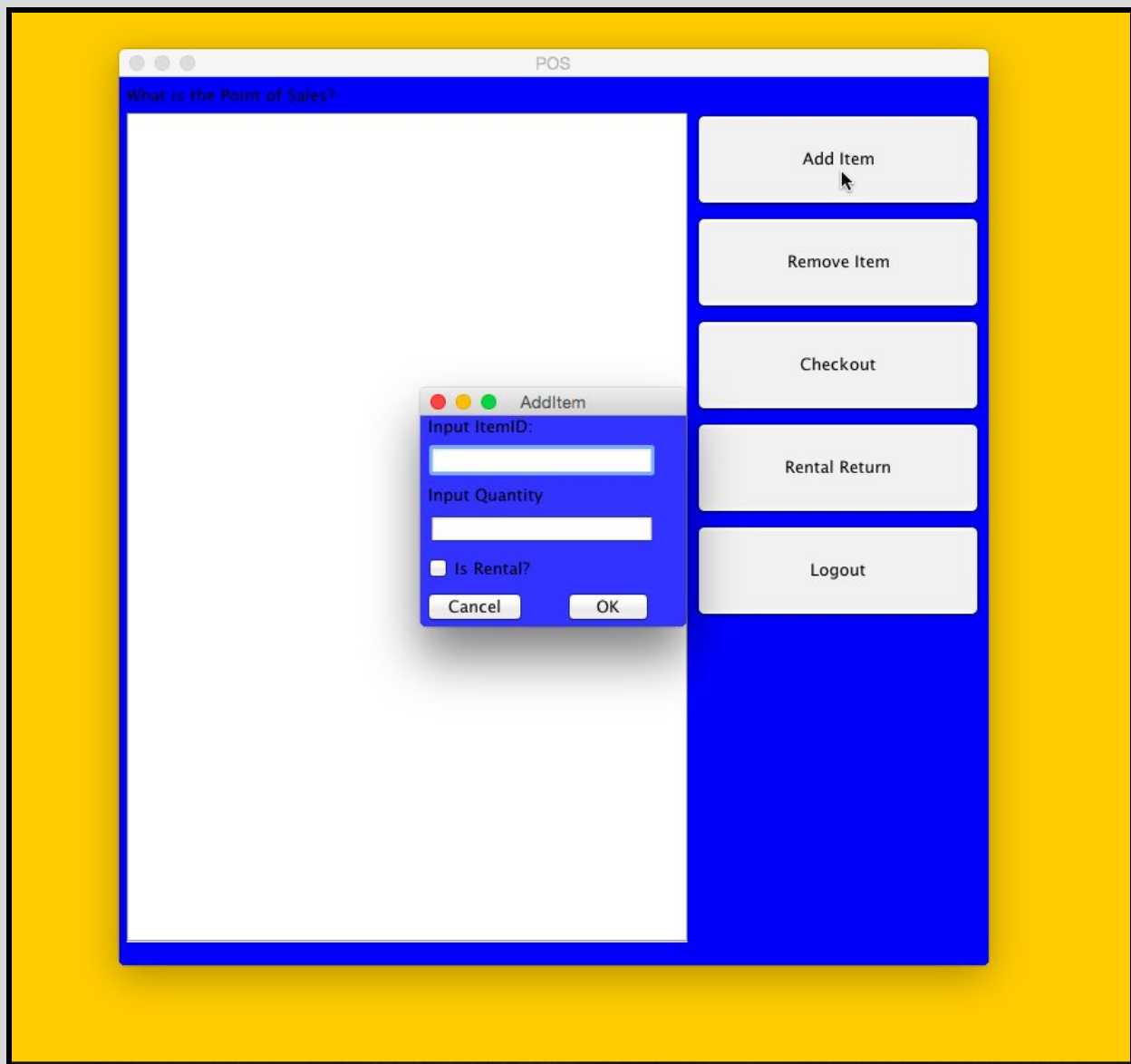


Upon successful completion of the “Return” transaction, an “Update Successful” window will appear notifying the user that the return was committed to the system. The user will then return to the home screen and may choose to purchase, rent, or return more items, or quit.

Rental:

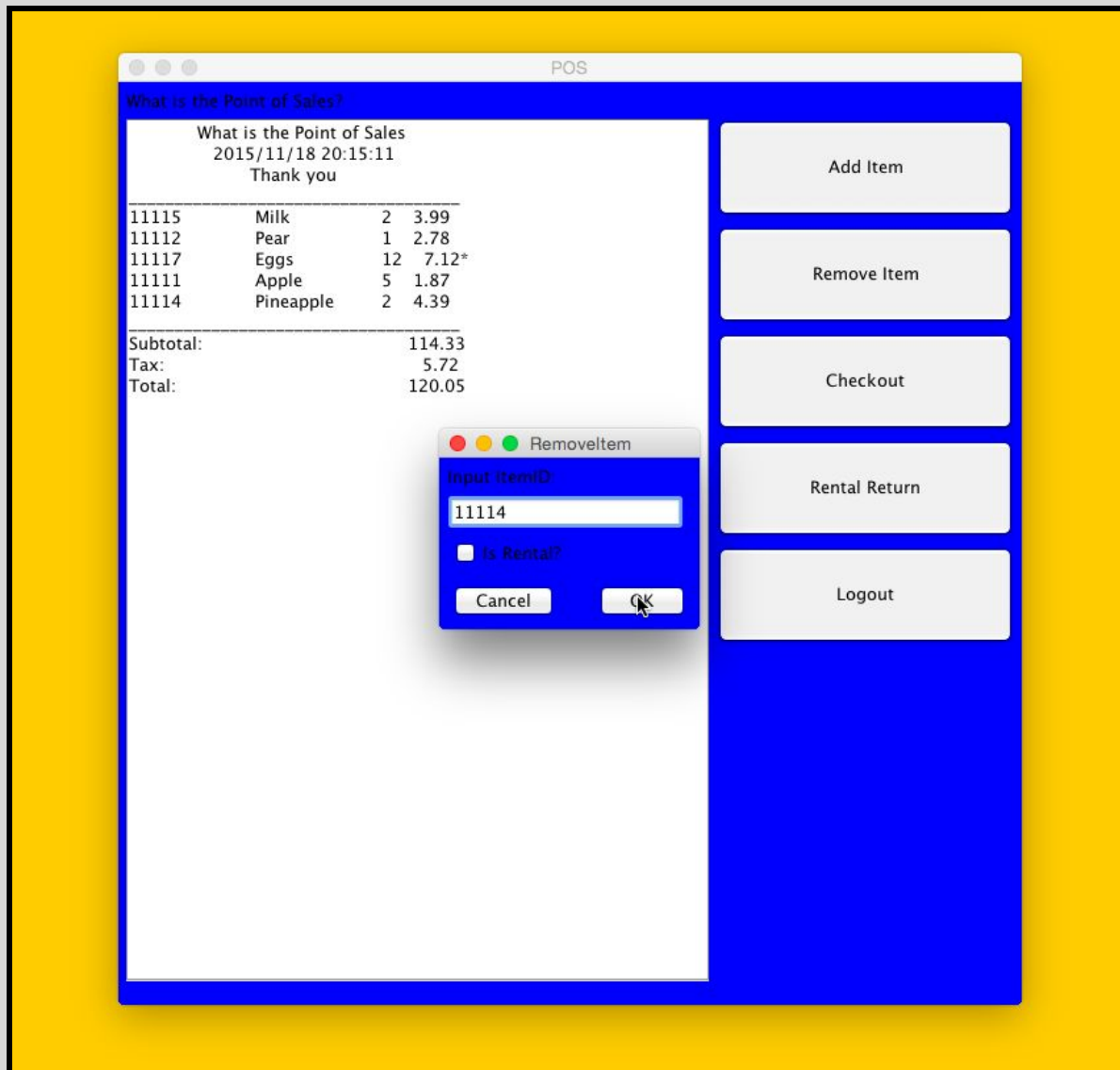
The rental use case is very reminiscent of the process sale use case in how it is executed, with the key difference being that the user will denote that they wish to rent particular items while browsing and complete a different form of transaction upon checkout. When this occurs, the rental transactions will be stored in the system, and the user may choose to return rented items at a later point. This use case applies exclusively to customers, requiring them to first log in with valid credentials.

Figure 13



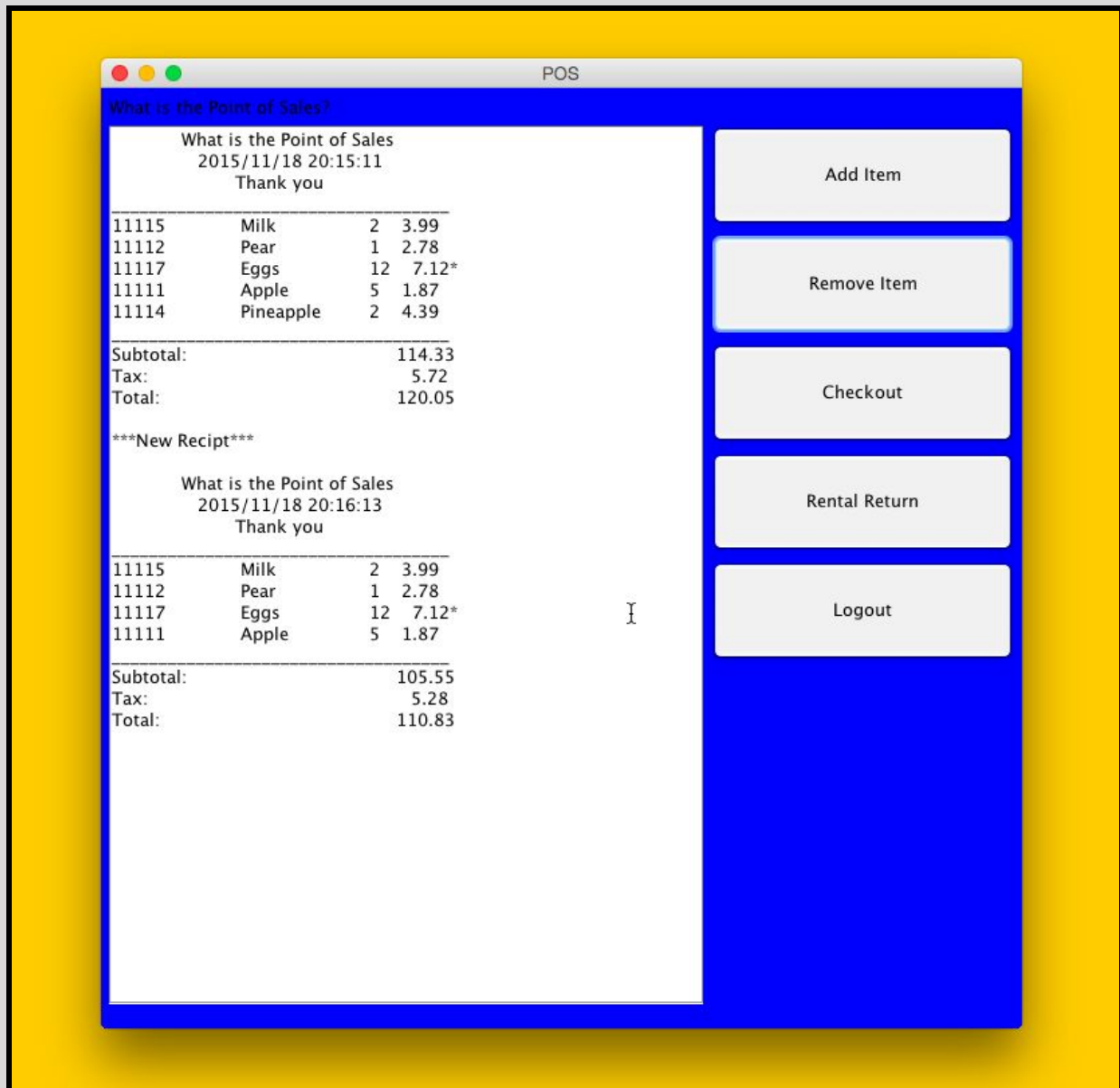
As in the case with process sale, the user will be lead to the home screen and have several options in going about the POS interface. For the rental use case, it would be of greatest interest to the customer to click on “Add Item” (as denoted by the cursor in the image above) to first select items provided by the inventory.

Figure 14



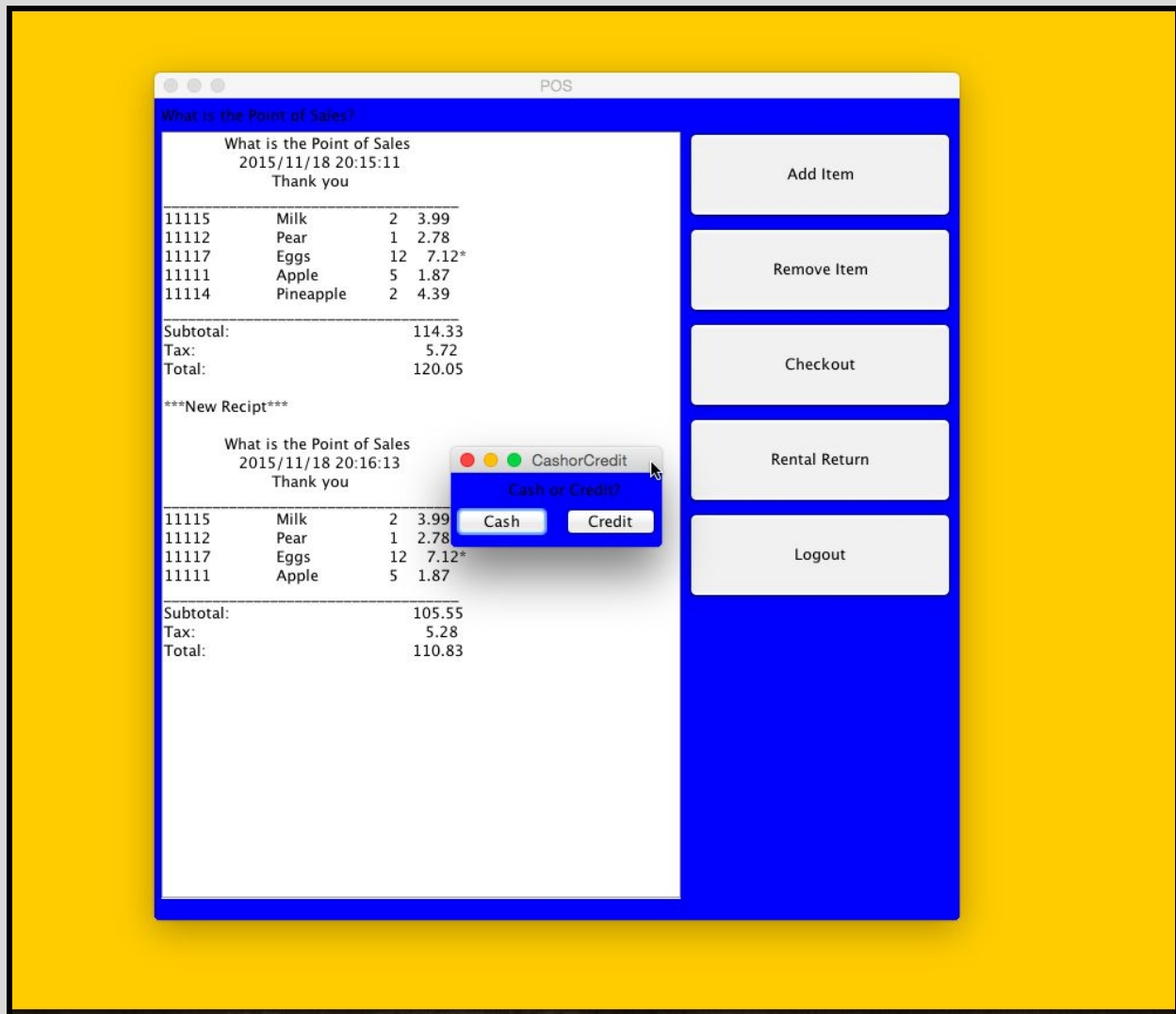
Once the user has entered valid and appropriate PIDs for items that they would like to purchase or rent, he or she must select the “Is Rental?” checkbox located below the “Input ItemID” box on the Item window. Selecting this checkbox and then clicking “OK” will notify the system that this item is to be treated as a rental upon checkout.

Figure 15



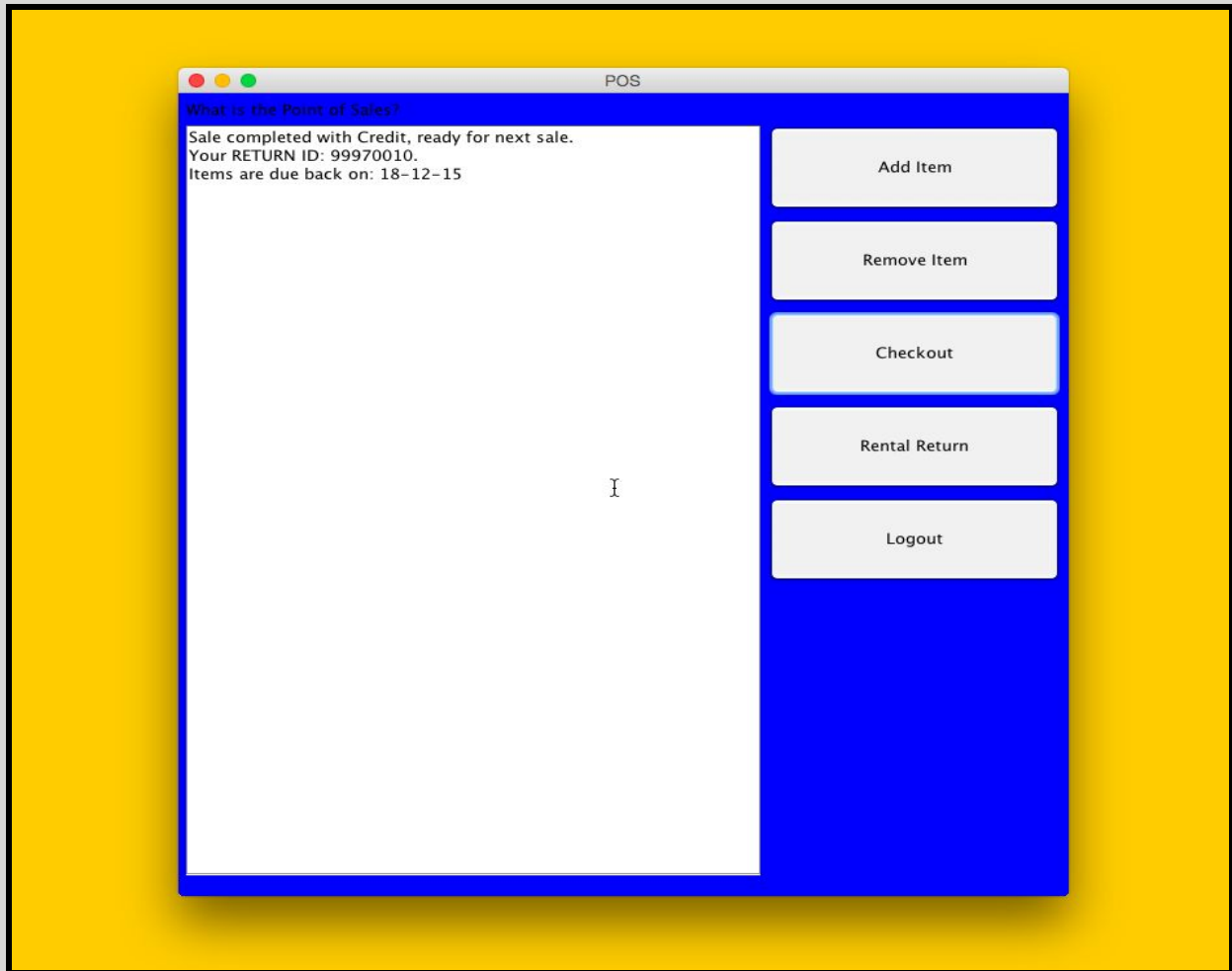
Once again, in an analogous fashion to the process sale use case, the user will be able to view a tentative receipt of their rentals and purchases as they select items that they may want to check out with. Once the customer chooses to leave, he or she will be given the option to 1.) Logout (in which case the transaction will be canceled and the carted items will be restocked in the system inventory), or 2.) proceed to checkout (as indicated by the center button on the right hand side of the interface).

Figure 16



When satisfied, the user must indicate that they are ready to complete his or her purchases by clicking on the “Checkout” button. There, the user will have the option to pay with cash or credit (and for the latter, the credit card number will be validated via a Luhn Algorithm), and rented items will be differentiated from purchased items in the system’s Sales Data.

Figure 17



Upon completion of a successful checkout (which was performed via credit card in the example above), a confirmation of the sale will be provided for the user. A Return ID for the rental transaction, in addition to a due date, will be provided on this screen as well.

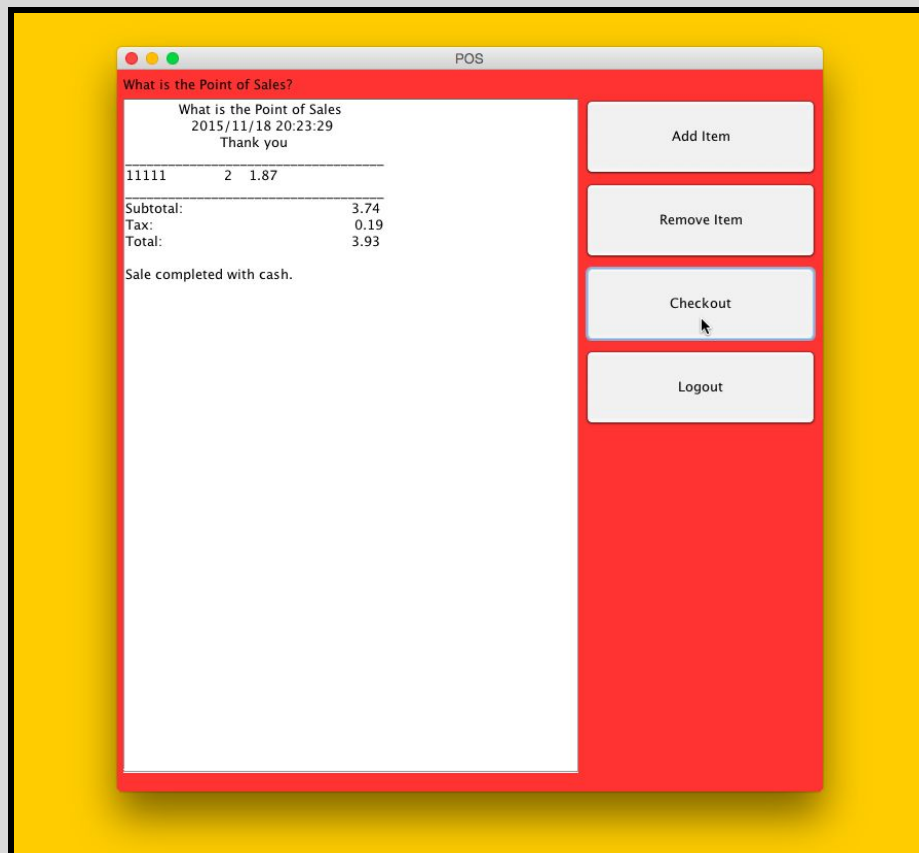
Offline Usage

This is one the contingency features. This feature allows for the user to use the system even when there is not an internet connection. Instead of updating the external database, the transactions are put into a text file that is updated into the database when the system is turned on. They system is able to update itself thus the user does not have to worry about how this system works. If the user wants to know more about the implementation please check out our frequently asked questions at whatisthepointofsales.com/faq.

We will now go through and show the user how they can tell when they are operating in the offline version and some of the different functionality that the system has.

When the user logs onto the system there is an override needed to implement a local database. This override will be received from the email that came with the system. (For privacy concerns we want to make sure that only authorized users can see this) Once logged on, the user will interact with an interface that behaves identically to the online POS system.

Figure 18



As one can see this is the same interface as the process scale. This just differs slightly because the color of the terminal changes to red, which is a sim indicator that the POS system is being operated offline. There are no other functional differences that the users sees.

Logging out of the system:

This is the final and perhaps most straightforward of all use cases available in the POS system, and is applicable to all users, whether they be employees or shoppers. In order to end a session that is started on the POS system, all the user needs to do is click on the “Logout” button placed on the bottom of the right-hand side of the user interface (as shown in Figure 19 below). When a logout occurs, the user’s ability to interact with the interface will be ended, and all proper commits necessary to the system will be made. If the system is running online, the MySQL database connection will be terminated, or if the system is running offline, the file reader/writer will be deactivated. This POS system is fully capable of supporting concurrent interactions from multiple users however, and as such, one user logging out will not have any effect on other users interacting with the system at the same time. Once logged out, the user may re-access the POS system at any time by re-logging in.

Figure 19

