

Please describe in details all use cases related to those user stories (e.g., checking out, changing price and quantity, adding a new product...). The description should include drawings or sketches of the relevant screens the system displays in each use case.

1. As an employee, I want to login into and logout from the system
2. As an employee, I want to change my display information (e.g. display name, photo...), my access code/password from the system
3. As a cashier, I want to check out a list of items bought by a customer
4. As a manager, I can assign or change the access rights to other employees
5. As a manager, I want to update the inventory (change price, availability, add new products,...)
6. As a customer support employee, I want to help a customer returning an item bought previously
7. As a manager, I want to install the application for the first time, setup users, and convert existing the database in XLS into a SQL-based database.
8. As a cashier, I want to checkout differently for loyal program customers. If the customer has a loyalty card, some items will have different prices. - **in checkout use case**
9. As a manager, I want to set up discount prices for some products. - **in inventory management use case**
10. As a customer, I want to use the reward points to pay in checking out process. The reward points are accumulated while paying by actual dollars. The conversion rate is 1 point for \$1 when buying, and 100 points for paying with points. - **in check out use case**
11. As a manager, I want to have revenue reports for products, or customers in a given period (e.g. a week, a month, or a quarter...)

There are currently two login types with the following capabilities.

1. Cashier
 - Checkout
 - Edit Account
2. Manager
 - Checkout
 - Edit Account
 - Reports
 - Inventory Management
 - Returns
 - Edit Employee Accounts

The initial login isare

Manager

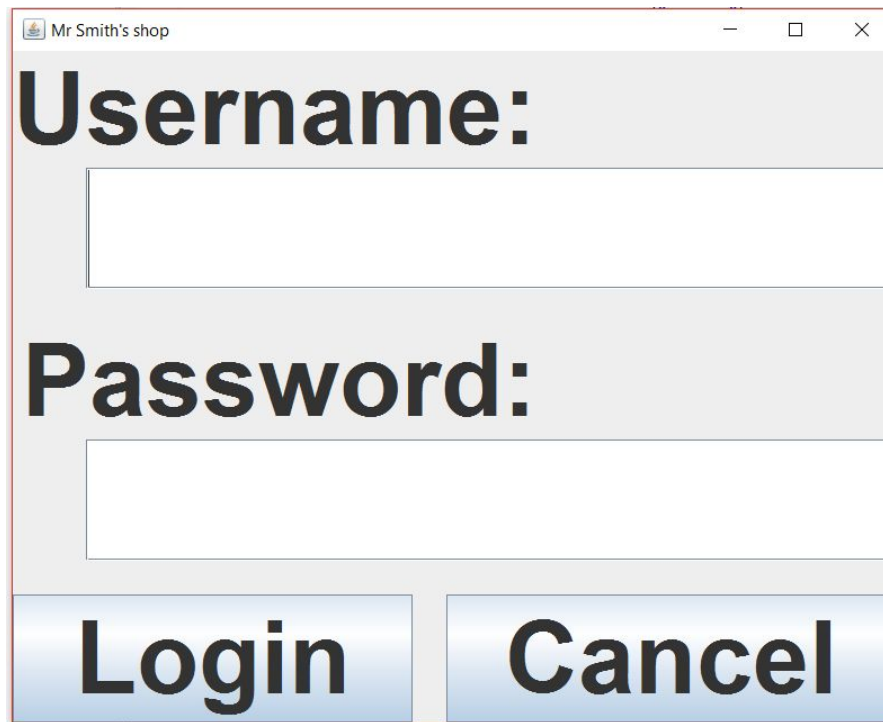
admin password

Use case 1: As an employee I want to Login and logout from the system.

1.1 As an employee I want to login to the system

Steps:

1. The system displays the main screen

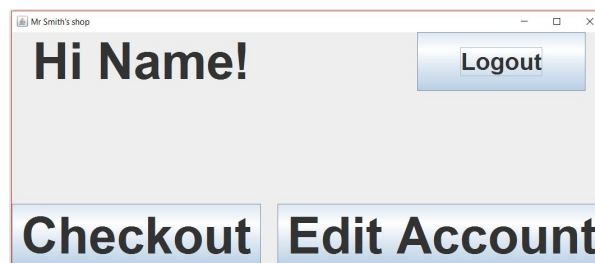


The screenshot shows a window titled "Mr Smith's shop" with a light gray background. At the top, the text "Username:" is displayed in a large, bold, black font. Below it is a white rectangular input field. Further down, the text "Password:" is displayed in the same large, bold, black font, followed by another white rectangular input field. At the bottom of the window, there are two blue buttons with white text: "Login" on the left and "Cancel" on the right.

2. The user types in credentials and clicks log in
3. If the login information was correct the system displays either the cashier main page or the manager main page depending on the type of user that logged in.

The cashier can perform:

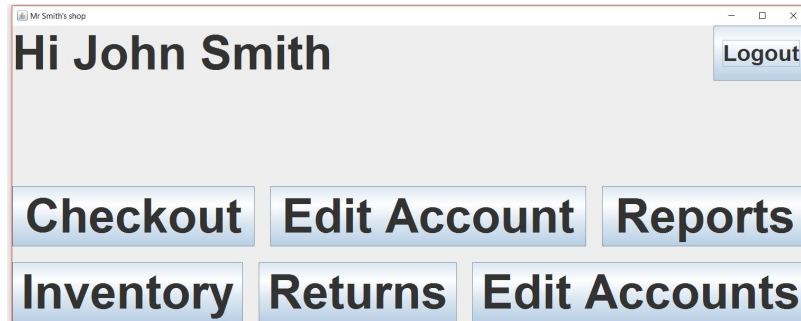
- Checkout
- Edit Account



The screenshot shows a window titled "Mr Smith's shop" with a light gray background. At the top left, the text "Hi Name!" is displayed in a large, bold, black font. To the right of this text is a blue button with white text labeled "Logout". At the bottom of the window, there are two blue buttons with white text: "Checkout" on the left and "Edit Account" on the right.

The manager can perform:

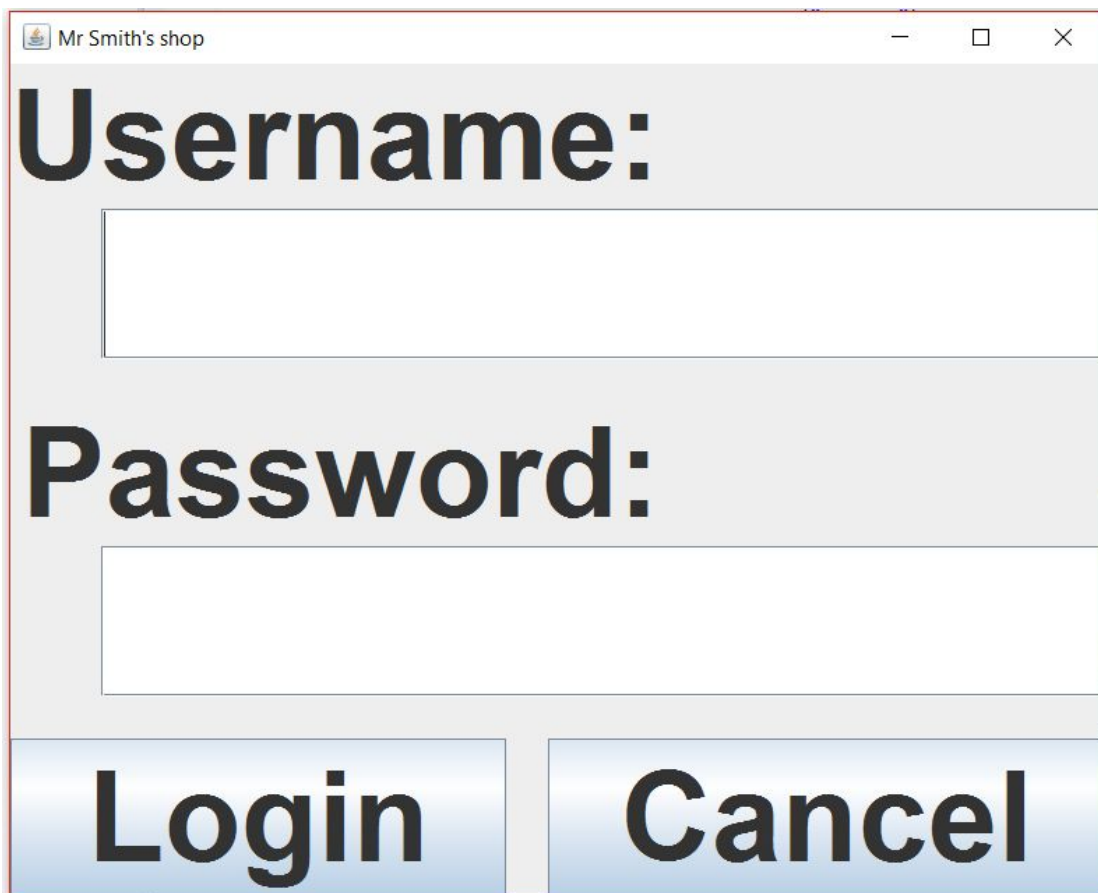
- Checkout
- Inventory
- Reports
- Returns
- Edit Account
- Edit Employee Accounts



1.2 As an employee I want to logout of the system

Steps:

1. If the user clicks logout on either screen it will take them back to the login screen.



Use case 2: As an employee I want to edit my profile

Steps:

1. From either the manager or cashier screen click Edit Account
2. The system will display the edit account page

The screenshot shows a window titled "Mr Smith's shop". Inside, the account type is "Cashier". The name "Jordan Knudsen" is displayed with an "Edit" button to its right. The username is "jordan". The password is masked with "*****" and has an "Edit" button to its right. A large "Back" button is at the bottom right.

2.1 As an employee I want to edit my Name

Steps

1. Click Edit next to the name field
2. The system will popup a edit dialog

The "Name Edit dialog" box is shown. It contains a label "Name:" followed by a text input field containing "Jordan Knudsen". Below the input field are "OK" and "Cancel" buttons.

3. The user can then change the name.
4. The system will change the name in the system and in the previous screen if the user clicks okay, otherwise It will not change anything.

2.2 As an employee I want to edit my Password

Steps

1. Click Edit next to the password field
2. The system will popup a edit dialog

The "Password Edit dialog" box is shown. It contains a green question mark icon, a label "Password:", and a text input field. Below the input field are "OK" and "Cancel" buttons. The background shows the "Password: *****" field from the previous screen.

3. The user can then change the password

4. The system will change the password in the system and in the previous screen if the user clicks okay, otherwise It will not change anything.

2.3 As an employee I want to return to the main screen

Steps

1. At anytime the user can click the Back button, which will take the program back to the manager or cashier screen.

Use case 3: As an employee I want to perform the Checkout process

Steps:

1. On either the manager or cashier pages, click Checkout
2. The system will popup a dialog asking if a loyalty id if the customer is a loyalty member. If they are not cancel will take you to normal checkout
3. The system will display the Checkout window.

The screenshot shows a window titled "Mr Smith's shop" with a "Check out" header. The main area is a large empty box for a receipt. On the right side, there are four buttons: "Add a product", "Add products", "Pay", and "Cancel". At the bottom, there is a summary table:

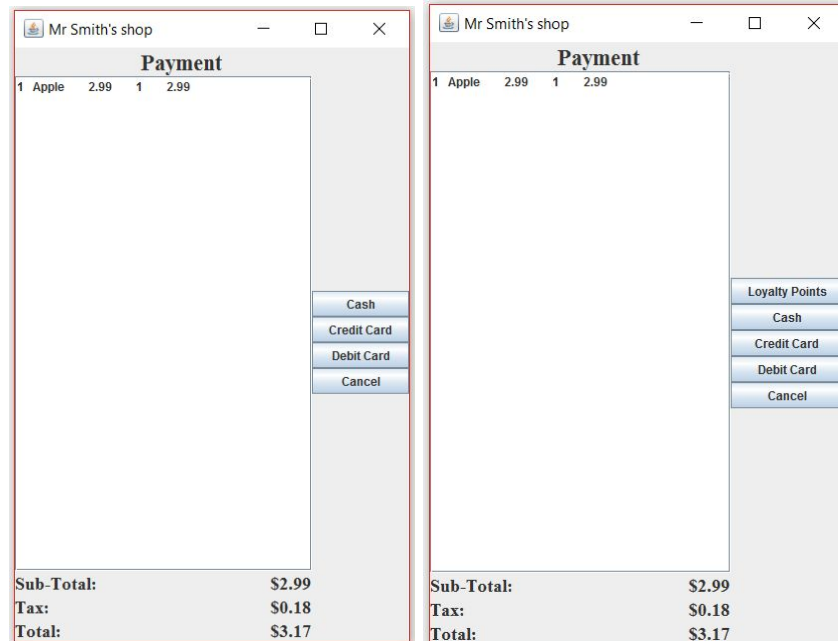
Sub-Total:	\$0.00
Tax:	\$0.00
Total:	\$0.00

3.1 As an employee I want to add a single product to the checkout

1. User clicks "Add a product"
2. Product id dialog appears



3. User enters an id
4. If invalid id system will display an error dialog otherwise will add the product to the order.



3.2 As an employee I want to add multiple products to the checkout

1. User clicks "Add products"
2. System displays the product Id dialog



3. The user enters id and clicks ok
4. The system displays the quantity dialog



- After amount is entered and the user clicks ok the product is added with the amount entered.

Mr Smith's shop

— □ ×

Check out

Apple Pie	6.99	3	20.97
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Add a product

Add products

Pay

Cancel

Sub-Total:	\$20.97
Tax:	\$1.26
Total:	\$22.23

- 3.3 As a cashier, I want to check out differently for loyalty program customers. If the customer has a loyalty card, some items will have different prices.
 - 1. For any product that is added if the customer is a loyalty customer the price will automatically be the loyal customer price
- 3.4 As an employee I want to cancel a checkout order
 - 1. At anytime the user clicks cancel
 - 2. The program displays either the cashier or manager main page
- 3.5 As an employee I want to process payment of a checkout
 - 1. During checkout the user will click the pay button
 - 2. The program will then change to the checkout screen
 - 3. If they are a loyal customer a pay with loyalty points will show up

The image shows two side-by-side screenshots of a software window titled "Mr Smith's shop" with a sub-header "Payment".

The left screenshot shows a transaction for 1 Apple at 3.99. The bottom summary shows: Sub-Total: \$3.99, Tax: \$0.24, Total: \$4.23. On the right side, there are buttons for "Cash", "Credit Card", "Debit Card", and "Cancel".

The right screenshot shows a transaction for 1 Apple at 2.99. The bottom summary shows: Sub-Total: \$2.99, Tax: \$0.18, Total: \$3.17. On the right side, there are buttons for "Loyalty Points", "Cash", "Credit Card", "Debit Card", and "Cancel".

3.5.1 As an employee I want to process a cash payment

1. If the user clicks cash a dialog will popup telling how much is due, and will ask for how much the customer gave to pay with

An "Input" dialog box with a green question mark icon. The text inside says: "Amount due: \$4.23" and "Please enter the amount given in 0.00 format". There is a text input field and "OK" and "Cancel" buttons at the bottom.

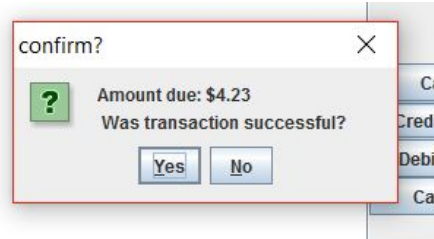
2. The system will then display the amount of change to give back to the customer on a confirmation dialog

A "confirm?" dialog box with a green question mark icon. The text inside says: "give \$0.77 back to the customer". There are "Yes" and "No" buttons at the bottom.

3. After transaction is confirmed the system returns to either the cashier or manager main page.

3.5.2 As an employee I want to process a credit card payment

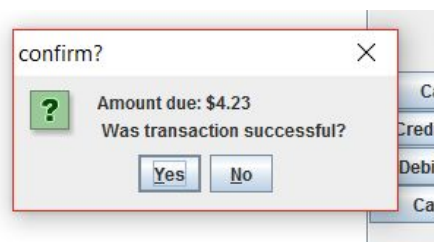
1. If the user clicks cash a dialog will popup telling how much is due, and will ask if the transaction was successful.



2. After transaction is confirmed the system returns to either the cashier or manager main page.

3.5.3 As an employee I want to process a debit card payment

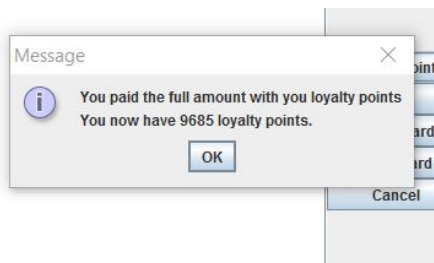
1. If the user clicks cash a dialog will popup telling how much is due, and will ask if the transaction was successful.



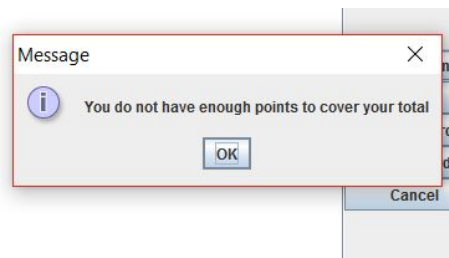
2. After transaction is confirmed the system returns to either the cashier or manager main page.

3.5.4 As a customer, I want to use the reward points to pay in checking out process.

1. Click the royalty points button
2. If you have enough loyalty points the entire order will be paid with them



3. If there is not enough points the customer will have to use another method of payment

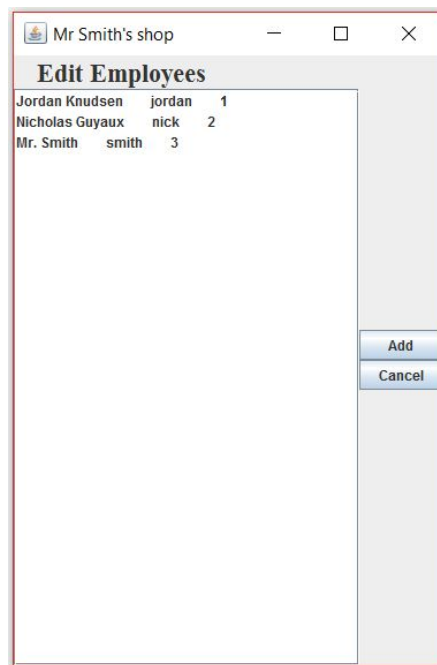


3.5.5 As an employee I want to cancel a checkout payment

1. If the user clicks cancel it will go back to the checkout screen for the current order so that it can be modified if needed. If the order is being completely canceled it has to be canceled from the checkout screen.

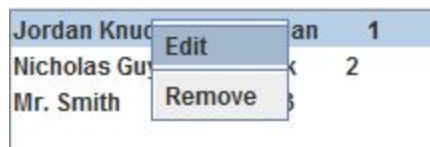
Use case 4: As a manager I want to Manage Employee Accounts

1. On the manager screen click Edit Accounts
2. The system will display the edit accounts screen

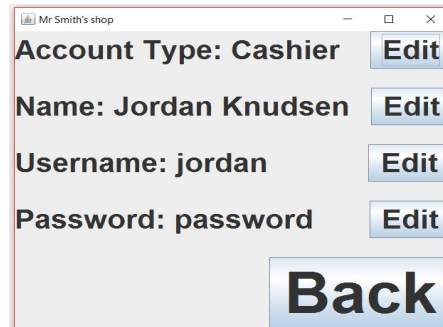


4.1 As a manager I want to edit an existing employee

1. To edit an existing employee you must find them in the list and right click on their row, then on the context menu click "edit"



2. The system will show a edit account screen for that user



Mr Smith's shop

Account Type: Cashier **Edit**

Name: Jordan Knudsen **Edit**

Username: jordan **Edit**

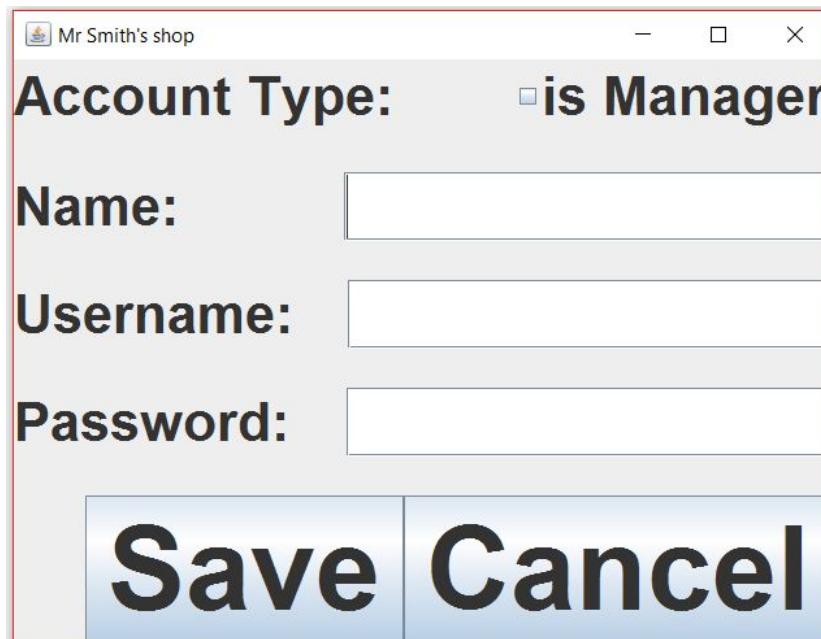
Password: password **Edit**

Back

- a. You can then edit the user as you would in use case 2, and can also edit the username field, and account type mode, but if that user is the current user you are unable to edit their own employee type.

4.2 As a manager I want to add a new employee

1. To create a new employee click the add button
2. Add Employee screen will display



Mr Smith's shop

Account Type: ☐ is Manager

Name:

Username:

Password:

Save Cancel

3. After the fields are filled out pressing save will add the employee into the data
 - a. Both save and cancel will return to the edit accounts screen

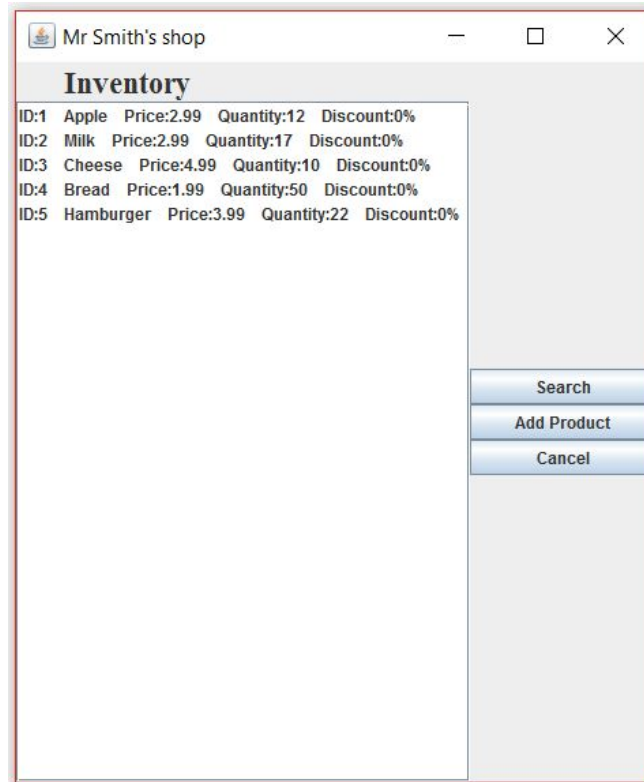
4.3 As a manager I want to return to the main screen

1. By clicking the back button the system will return to the manager main screen

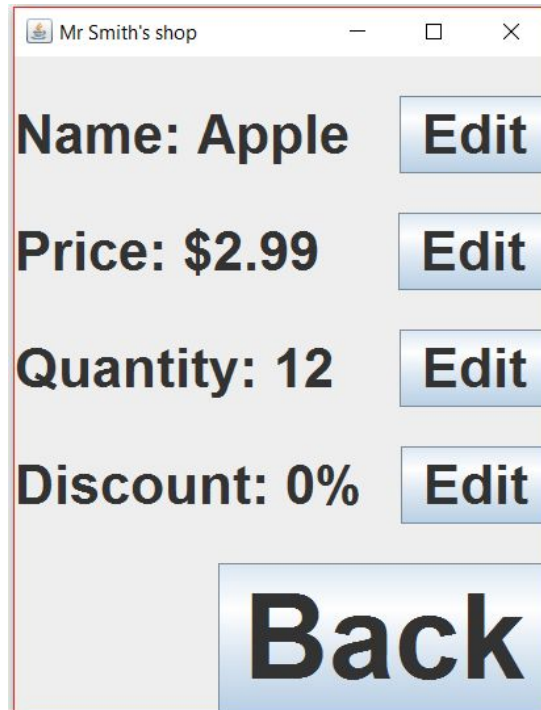
Use case 5: As a manager I want to Manage the produce Inventory

1. Click on the Manage Inventory button on the manager main screen

2. The system will display the manage inventory screen



- 5.1 As a manager I want to edit an existing product
 1. Right click on the product you want to edit and then click edit on the context menu.
 2. The system will display a screen to edit the product



3. From here the user can edit the product similarly to how you edit accounts in use case 2.

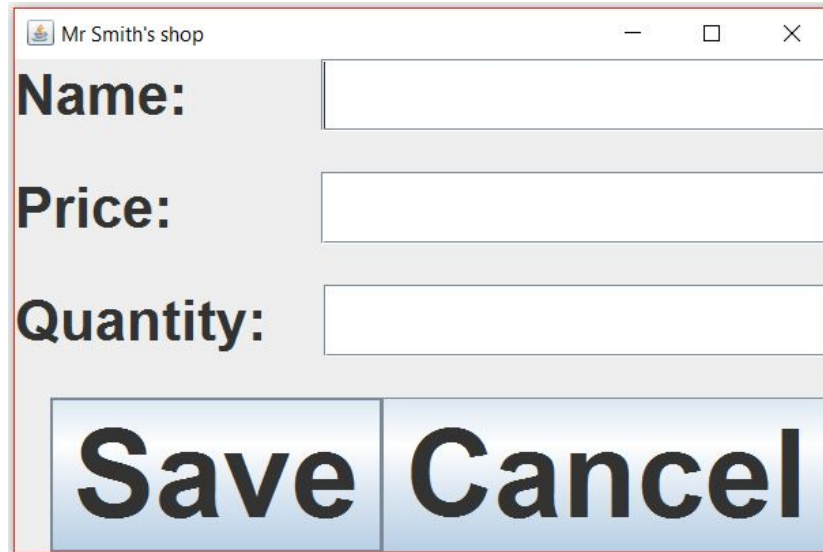
5.2 As a manager I want to remove an existing product

1. Right click on the product you want to remove and click remove
2. A confirmation dialog will appear making sure you want to remove it.



5.3 As a manager I want to add a new product

1. Click "Add" on the inventory management screen
2. The system will display the new product screen



The screenshot shows a web form titled "Mr Smith's shop". It contains three input fields: "Name:", "Price:", and "Quantity:". Below these fields are two large buttons labeled "Save" and "Cancel".

3. Information can be entered here
4. When save is clicked the system will check the fields and if they are valid it will save the product into the system (discounts have to be changed through the product edit screen)

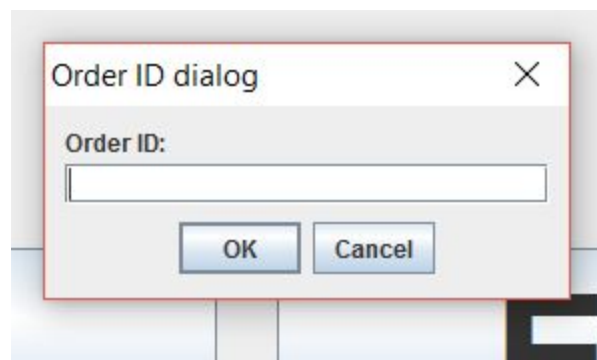
5.4 As a manager I want to return to the main screen

1. Click back
2. The system will return to the manager main screen

Use case 6: As a manager I want to return products purchased by a customer

6.1 As a manager I want to load an order

1. Click on the returns button on the Manager Main Screen
2. The system will ask you for a Order ID (which would show up on a receipt)



The screenshot shows a dialog box titled "Order ID dialog". It contains a label "Order ID:" followed by an input field. Below the input field are two buttons labeled "OK" and "Cancel".

3. With a valid Order Id the system will show the returns page

Returns			
Apple	3.99	1	3.99
Apple Pie	6.99	3	20.97

Sub-Total:	\$24.96
Tax:	\$1.50
Total:	\$26.46
Return Total:	\$0.00

Return Product
Pay
Cancel

6.2 As a manager I want to return an item from an order
There are a few ways to do this

1. Click return a product
 - a. The system will ask for a product id

Product Id

Enter the id of the product that you want:

2

OK Cancel

- b. If that product id has a quantity of more than 1 the system will ask for how many to return

Quantity

Enter the quantity of the product:

2

OK Cancel

- c. After amount is selected the return screen will show that the item is returned

Mr Smith's shop

Returns

Apple	3.99	1	3.99
Apple Pie	6.99	3	20.97
Apple Pie	6.99	-2	-13.98

Return Product
Pay
Cancel

Sub-Total: \$24.96
Tax: \$1.50
Total: \$26.46
Return Total: \$14.82

2. Right click on an item to return

Apple	3.99	1	3.99
Apple Pie	6.99	3	20.97

Return

- a.
b. By clicking return the system will return the complete quantity of that product

The returned item rows can be right clicked to either cancel its return or to modify the quantity that is being returned.

Apple	3.99	1	3.99
Apple Pie	6.99	3	20.97
Apple	3.99	-1	-3.99
Apple Pie	6.99	-2	-13.98

Edit
Remove

6.3 As a manager I want to process return payment

1. Click on Pay
2. The payment screen will display

Mr Smith's shop

Payment

Apple	3.99	1	3.99
Apple Pie	6.99	3	20.97
Apple	3.99	-1	-3.99
Apple Pie	6.99	-2	-13.98

Cash
Credit Card
Debit Card
Cancel

Sub-Total: \$24.96
Tax: \$1.50
Total: \$26.46
Return Total: \$19.05

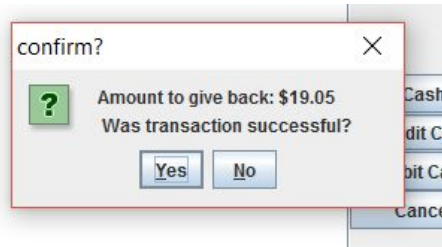
3. This screen works very similar to the Payment screen for checkout except each cash, credit card, and debit card is changed to prompts that will give the return total amount back. Each of these consist of one popup dialog and are shown below
 - a. Cash

confirm?

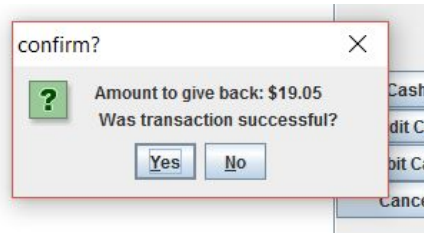
? give \$19.05 back to the customer

Yes No

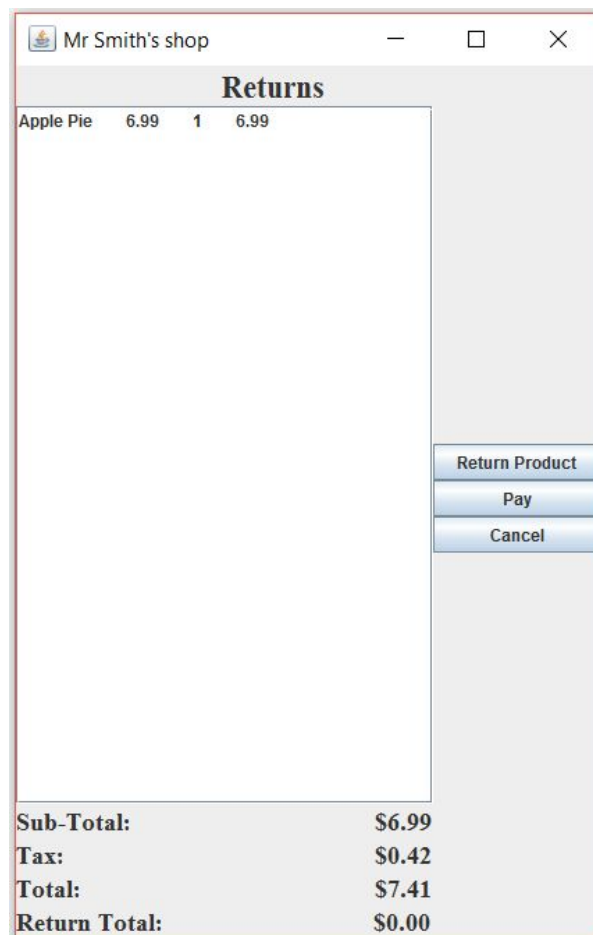
b. Credit



c. Debit



On a successful return the Order for the return will be modified to contain only what was left in the order. For example for the return above if you reopen the return screen for it it will only have the last item left.



6.4 As a manager I want to return to the main screen

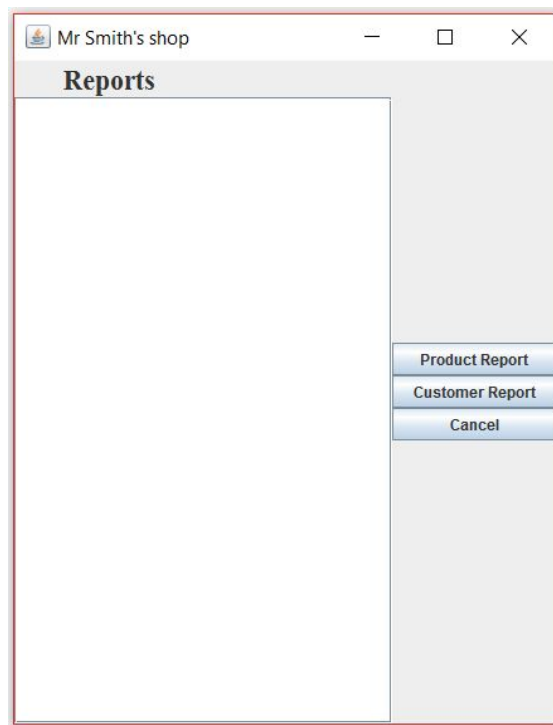
1. Click on cancel
2. The system will then return to the Manager Main screen

Use case 7: As a manager, I want to install the application for the first time, setup users, and convert existing the database in XLS into a SQL-based database.

1. This is done at startup, If a database stored using SQLite at location store.db does not exist a new database will be created.
2. The products in this database is collected from doc/products.xlsx.
3. For the database initialization only one user is created with the permissions of an manager. This user will have the username/password be admin password
4. A single customer is also added with an id of 1 and with 10000 loyalty points
5. If store.db does exist all data connects will work from it directly

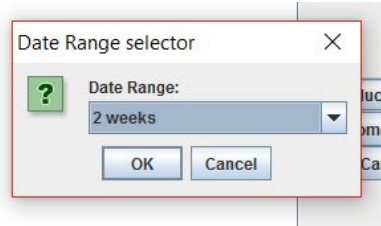
Use case 8: As a manager, I want to have revenue reports for products, or customers in a given period (e.g. a week, a month, or a quarter...)

1. As a manager click the reports button
2. System will display the reports screen

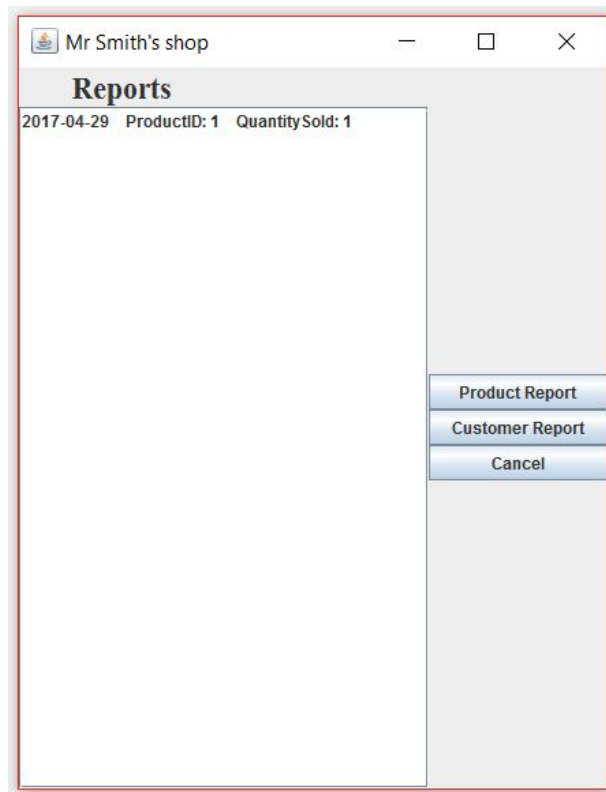


8.1 As a manager, I want to view reports for products

1. Click on Product Report
2. A date range dialog will ask you for the timeframe to generate the report

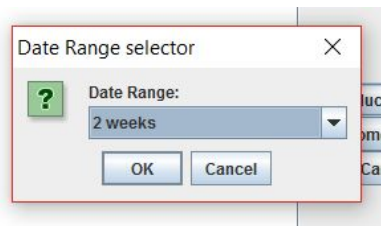


3. After a selection is made the system will show a report for that range

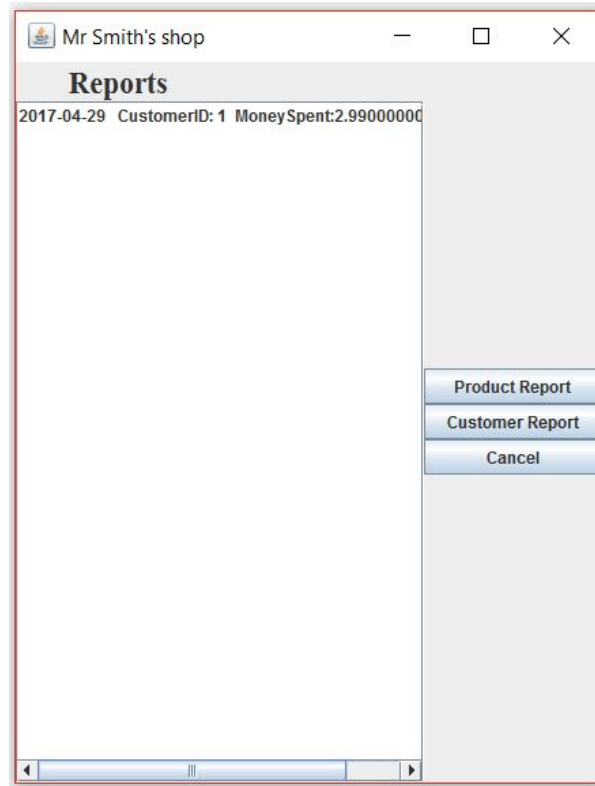


8.2 As a manager, I want to view reports for customers

1. Click on Customer Report
2. A date range dialog will ask you for the timeframe to generate the report



3. After a selection is made the system will show a report for that range



- 8.3 As a manager, I want to return to the main screen
1. Click cancel
 2. The system will return to the manager main screen