

Iteration 3 Requirements

User stories:

1. As a cashier, I want to check out a list of items bought by a customer
2. As a manager, I want to update the inventory (change price, availability, add new products...)
3. As an employee, I want to login into and logout from the system
4. As an employee, I want to change my display information (e.g. display name, photo...), my access code/password from the system
5. As a manager, I can assign or change the access rights to other employees
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, set up users, and convert the existing database in XLS into a SQL-based database (IN INSTALLATION PACKAGE)
8. As a cashier, I want to check-out differently for loyal program customers. If the customer has a loyal card, some items will have different prices
9. As a manager, I want to set up discount prices for some products
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
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...)

Note: Access levels are as follows:

- 1: Manager with access to all systems**
- 2: Cashier with access to checkout and returns**
- 3: Cashier with access to only checkout**
- 4: Customer support employee with only access to returns**

Also, if the user enters an incorrect password 3 times, the system will lock them out and shutdown.

Use Case: Login/out

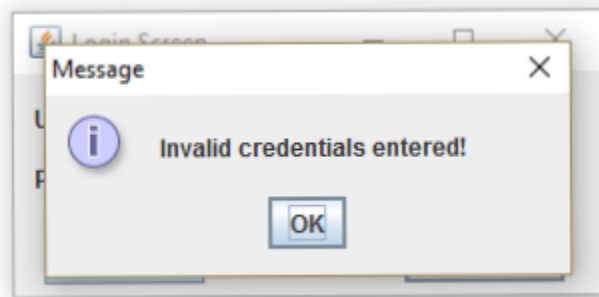
1. System displays the Startup screen.



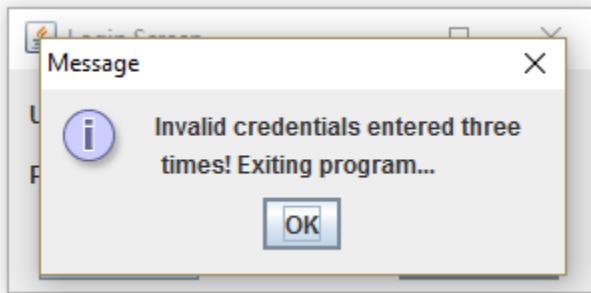
2. User clicks on their login icon.
3. System displays the Login screen.



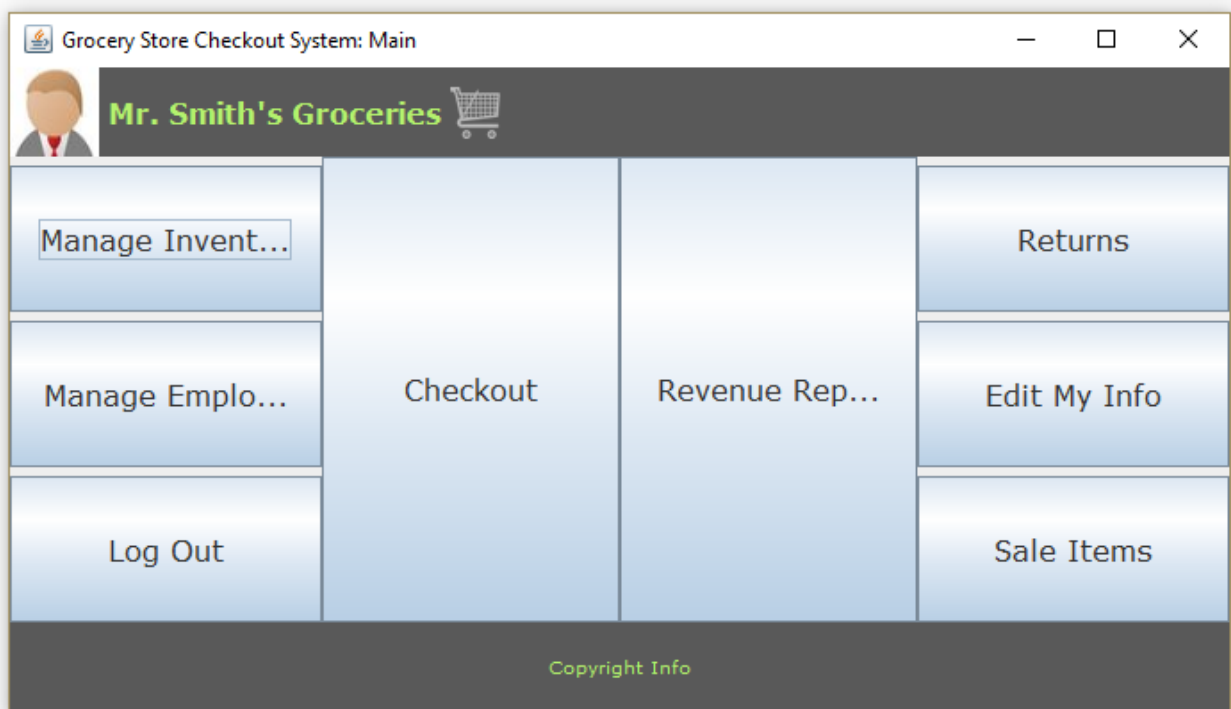
4. User enters in password.
5. If user enters in incorrect password system, displays a warning message



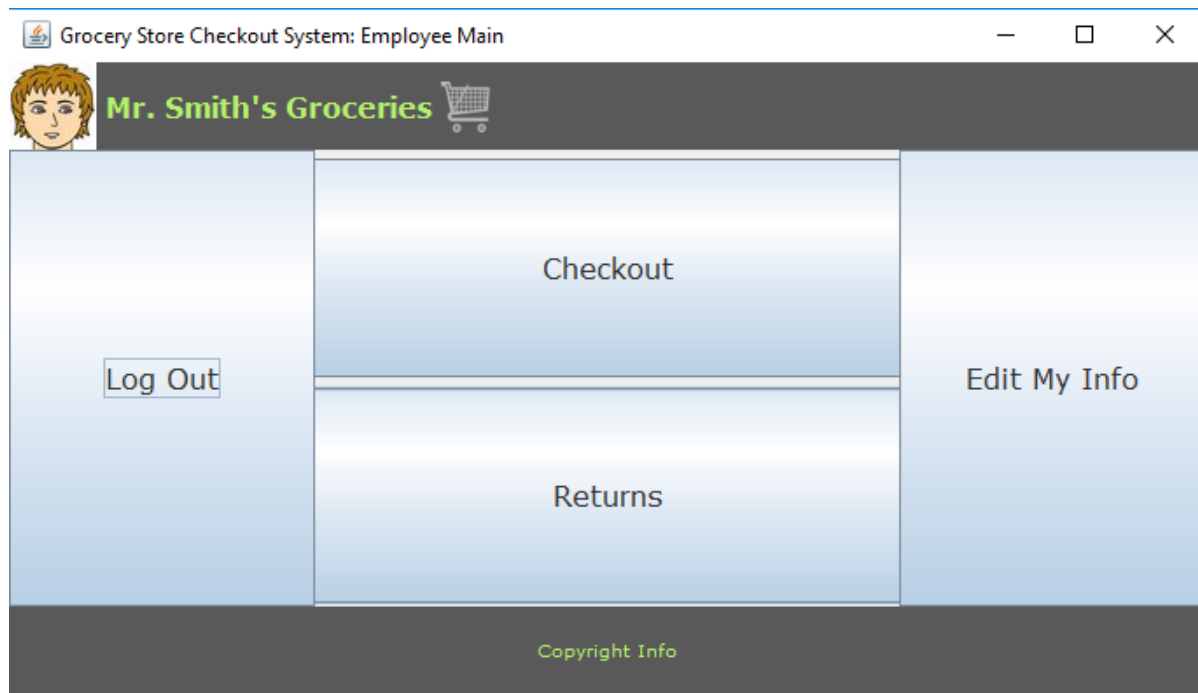
6. If user enters in incorrect password three times in a row, system displays warning message and program is exited



7. If user has access level 1 (and enters correct password) system displays this Main screen.

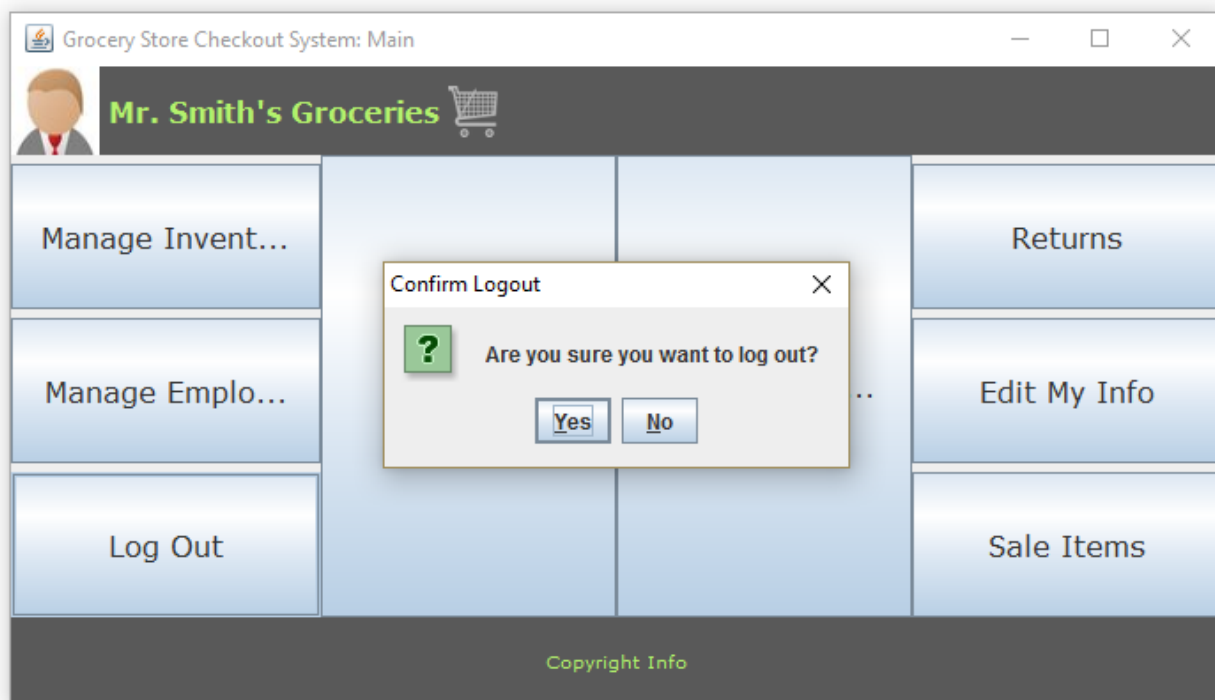


8. If user does not have access level 1, system displays this Main screen.



9. User clicks on “Log out” button.

10. System displays a Confirm Logout screen.

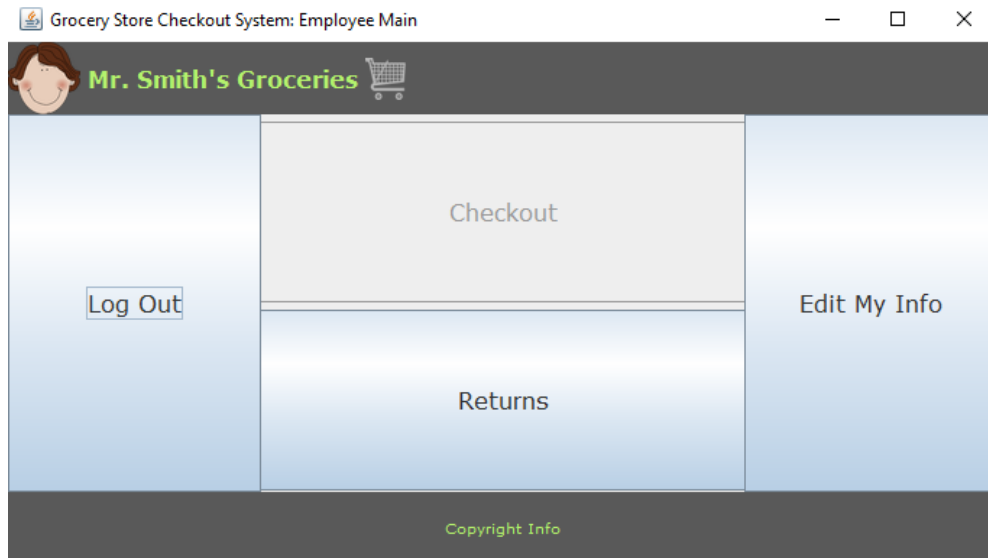


11. User clicks “Yes” button.

12. System returns to Startup screen.

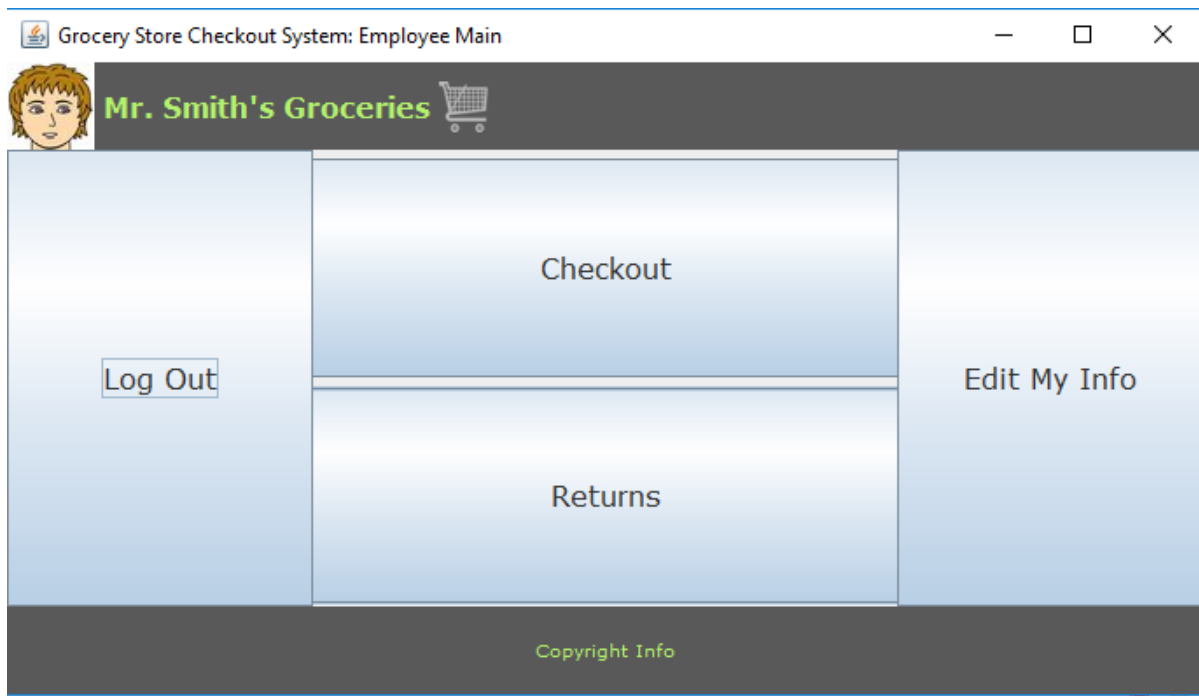
Use Case: Check Out

1. Repeat steps from Login/out Use Case to login.
2. If user access rights is not 1-3, system will display a Main screen with a disabled Checkout button.

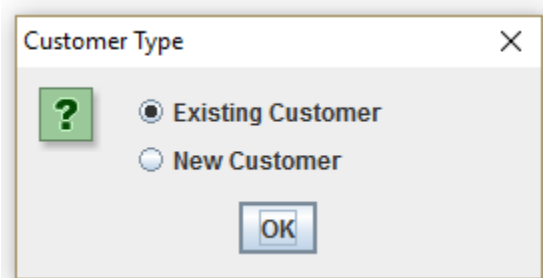


3. If user access rights is 1-3 system will allow user to click on "Checkout" button.

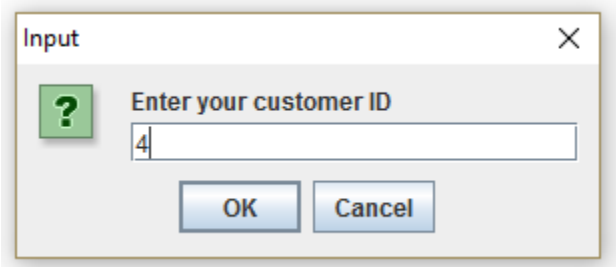




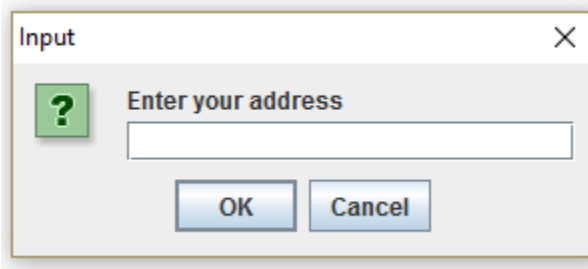
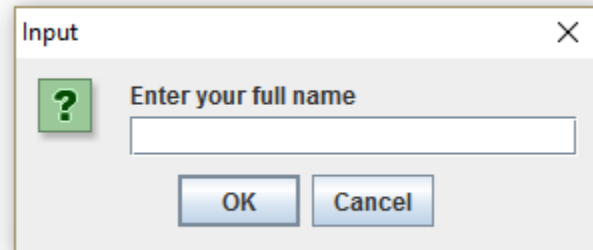
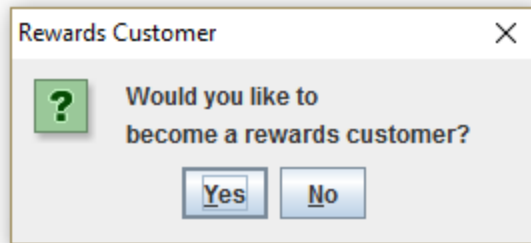
4. System then displays a customer type popup screen



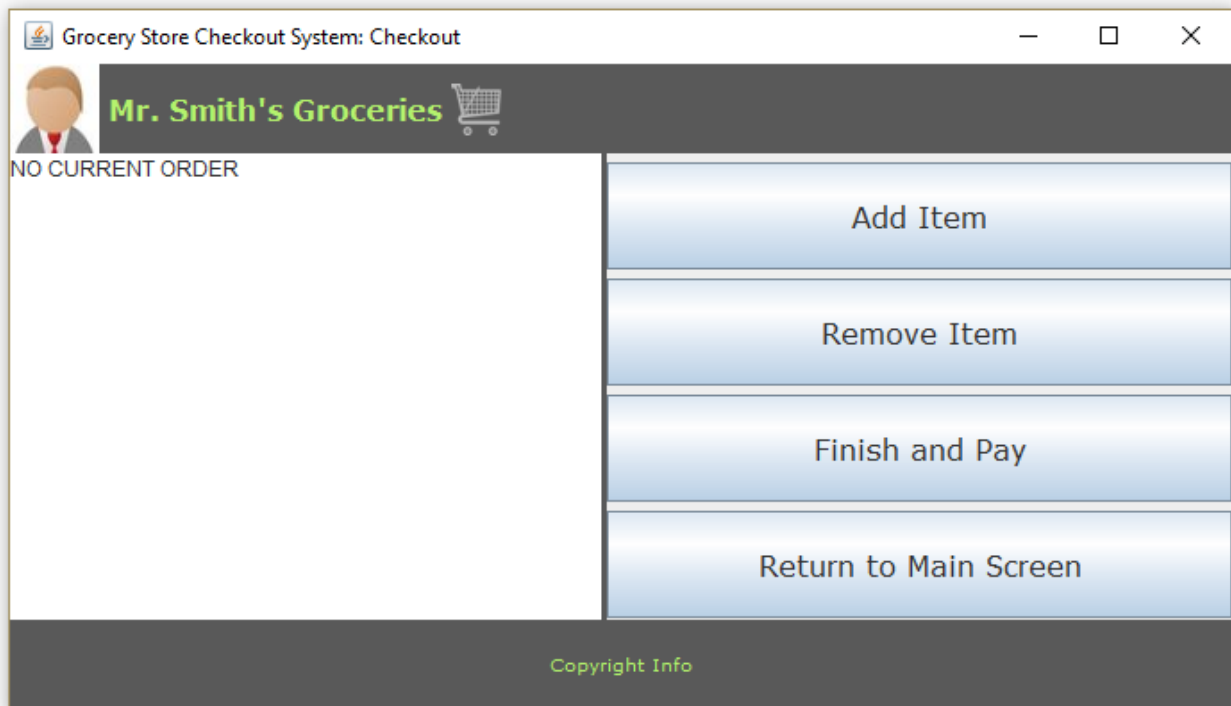
5. User selects the customer type.
6. If existing customer was selected system displays window to enter in customer ID



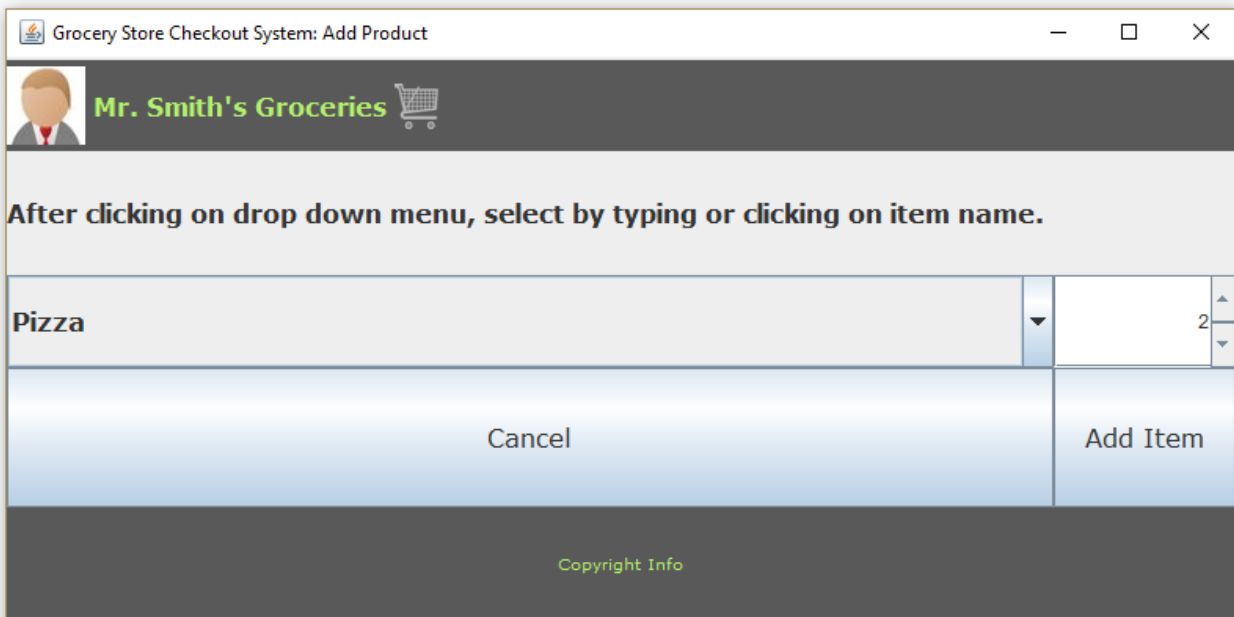
7. If new customer was selected system displays the following windows to enter in customer information



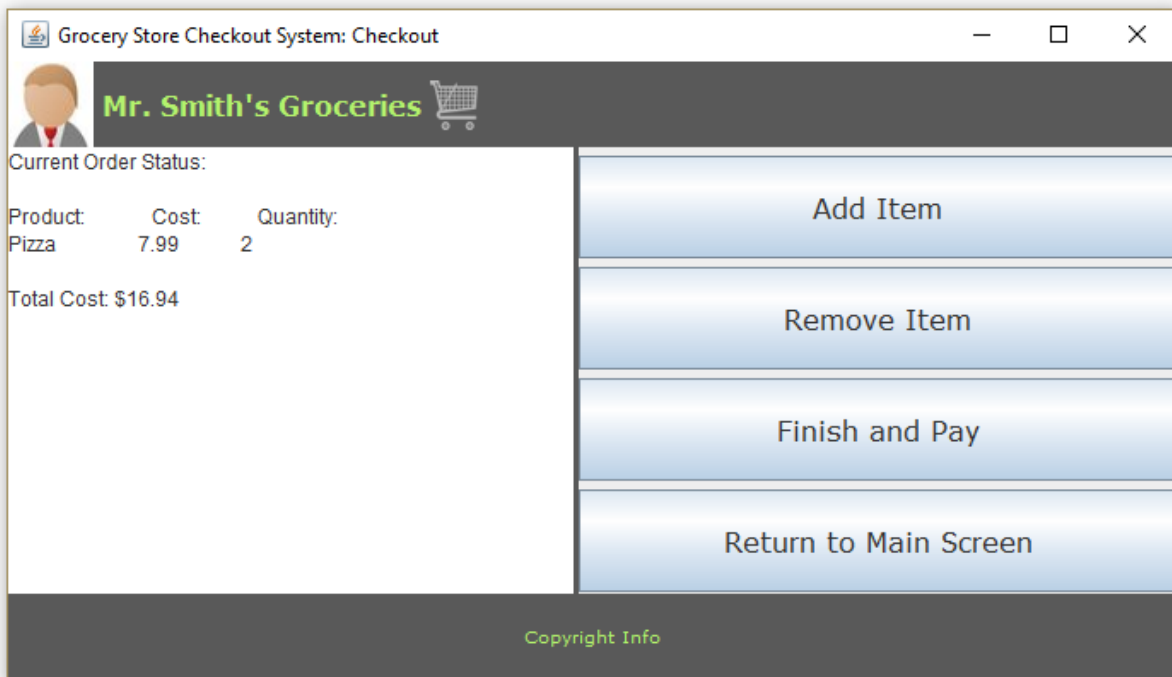
8. System then displays Checkout screen.



9. User clicks "Add Item" button.
10. System displays Add Item screen.



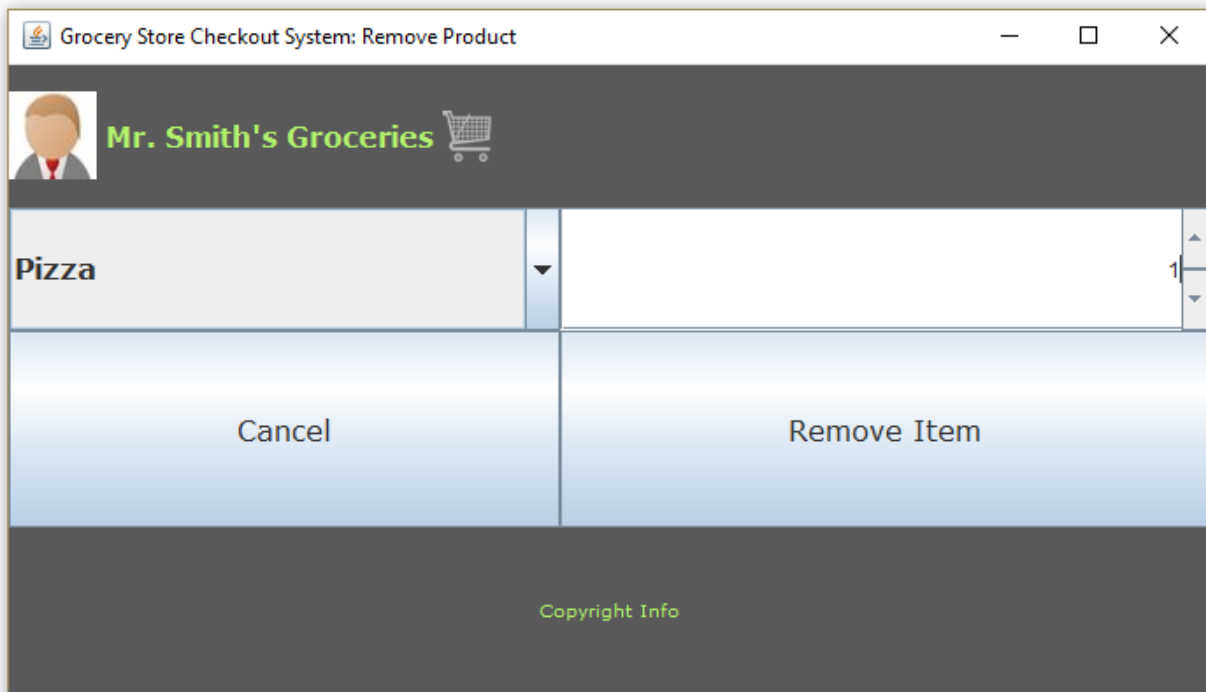
11. User selects an item and quantity and clicks on "Add item" button to add new item.
12. System updates information of the new item in the list of items.



13. User repeats step 10 for all items.

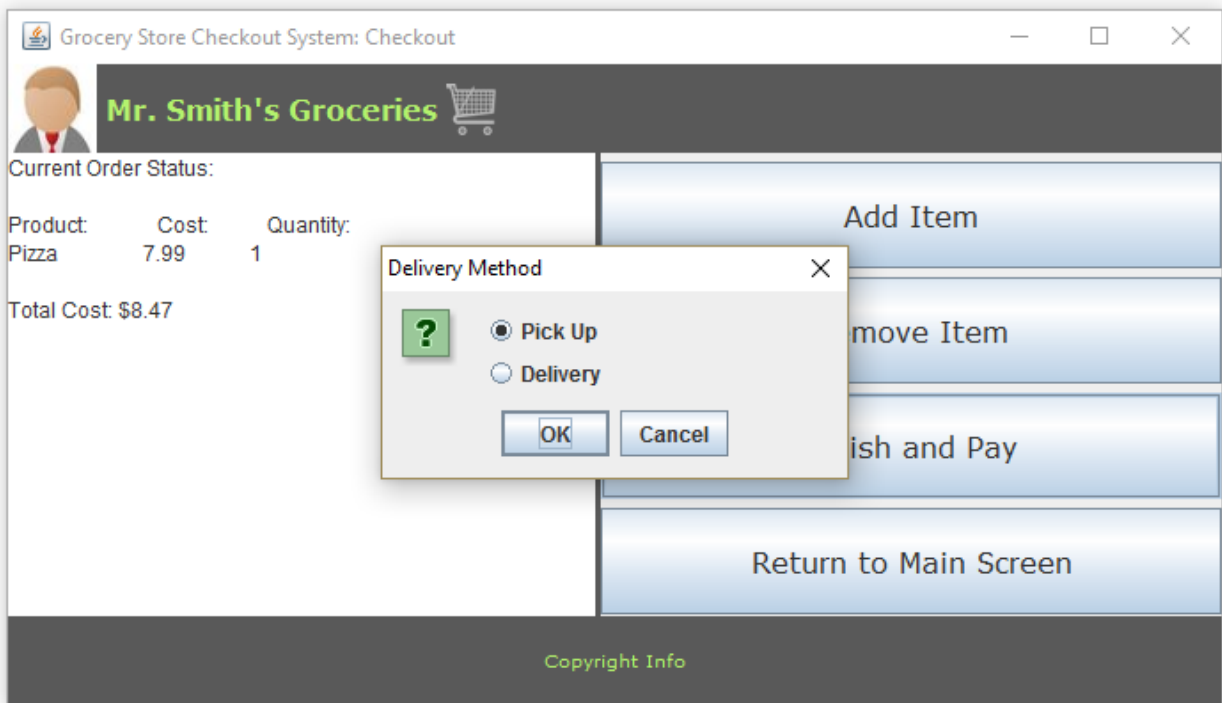
14. To remove an item user clicks "Remove Item" button.

15. User selects an item and quantity from the list of items and clicks on "Remove Item" button to remove item.



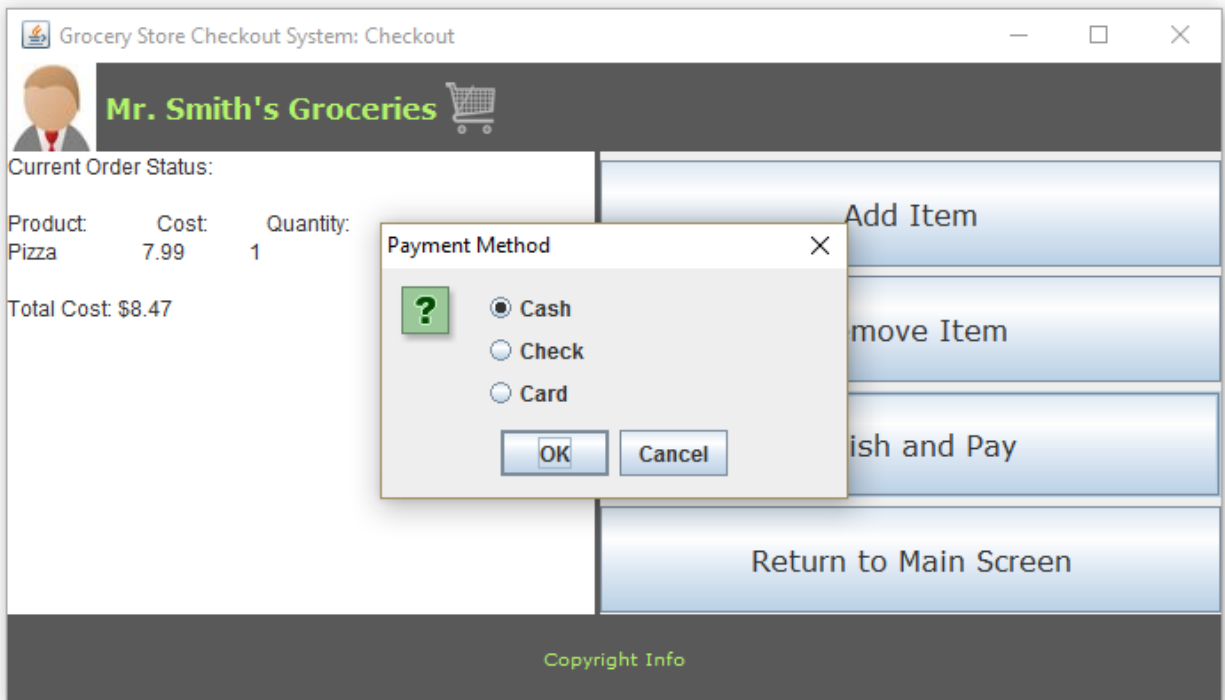
16. User clicks on "Finish and Pay" button.

17. System displays the Delivery Method pop up screen.



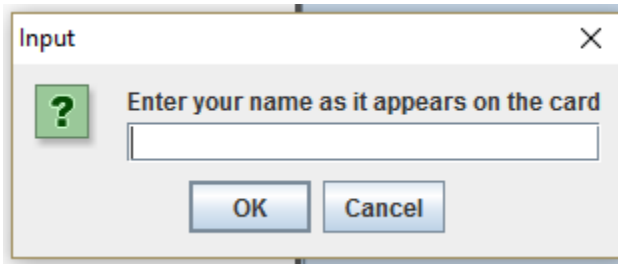
18. User selects delivery method.

19. System displays the Payment Method pop up screen.



20. User selects payment method.

21. If user selects "Card" option system will display the following screens to input customer information

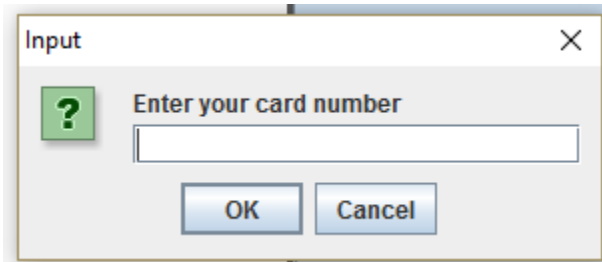


Input

?

Enter your name as it appears on the card

OK Cancel

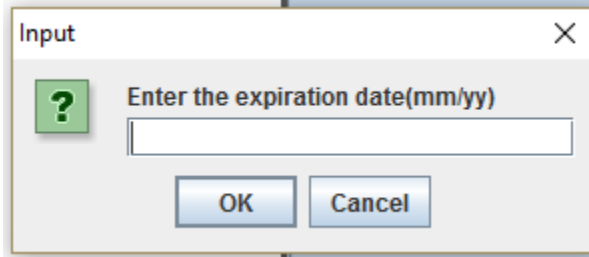


Input

?

Enter your card number

OK Cancel



Input

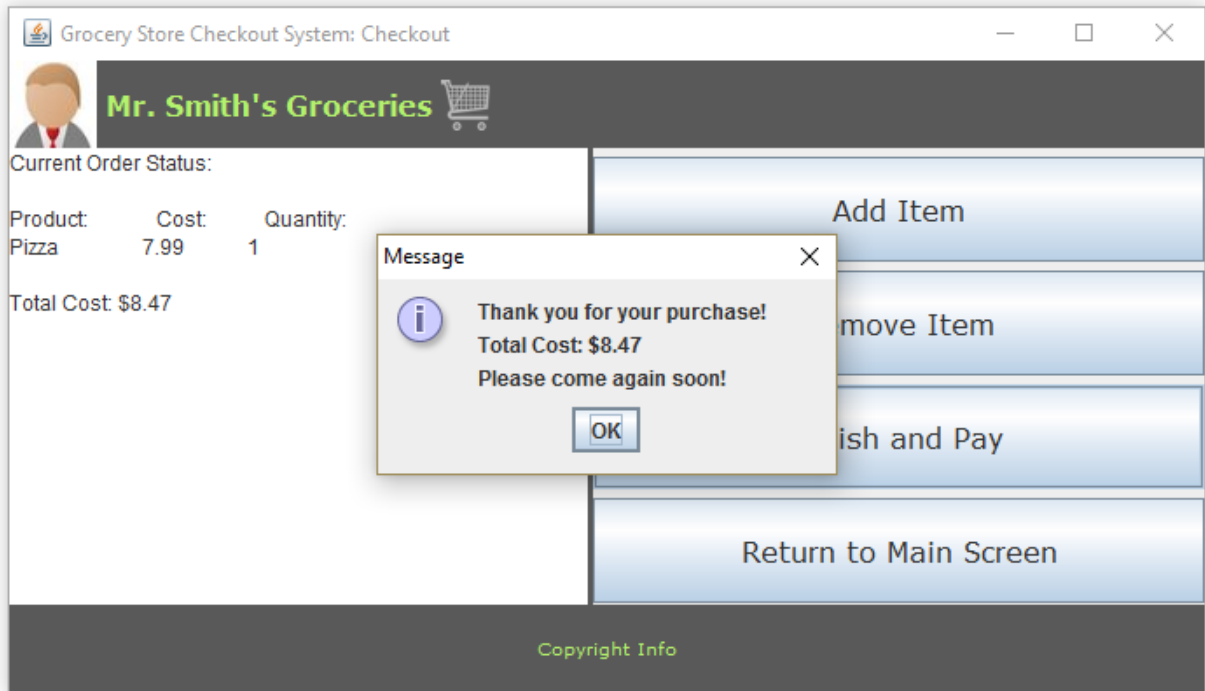
?

Enter the expiration date(mm/yy)

OK Cancel

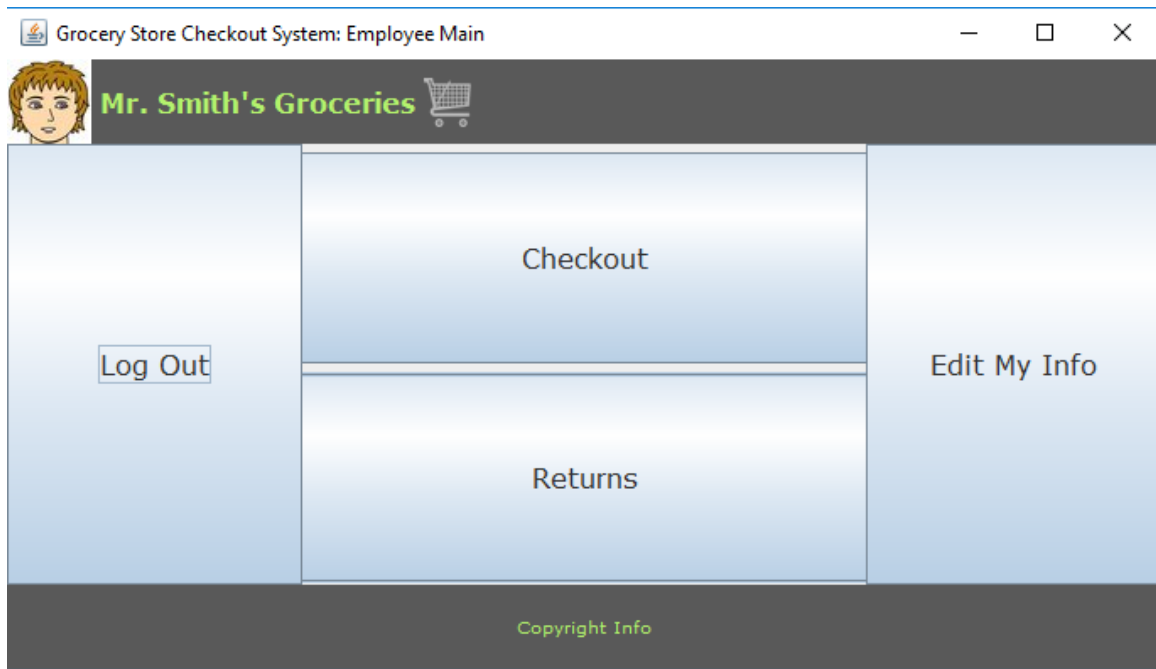
22. User inputs customer information

23. System displays price of order and updates customer and order information.

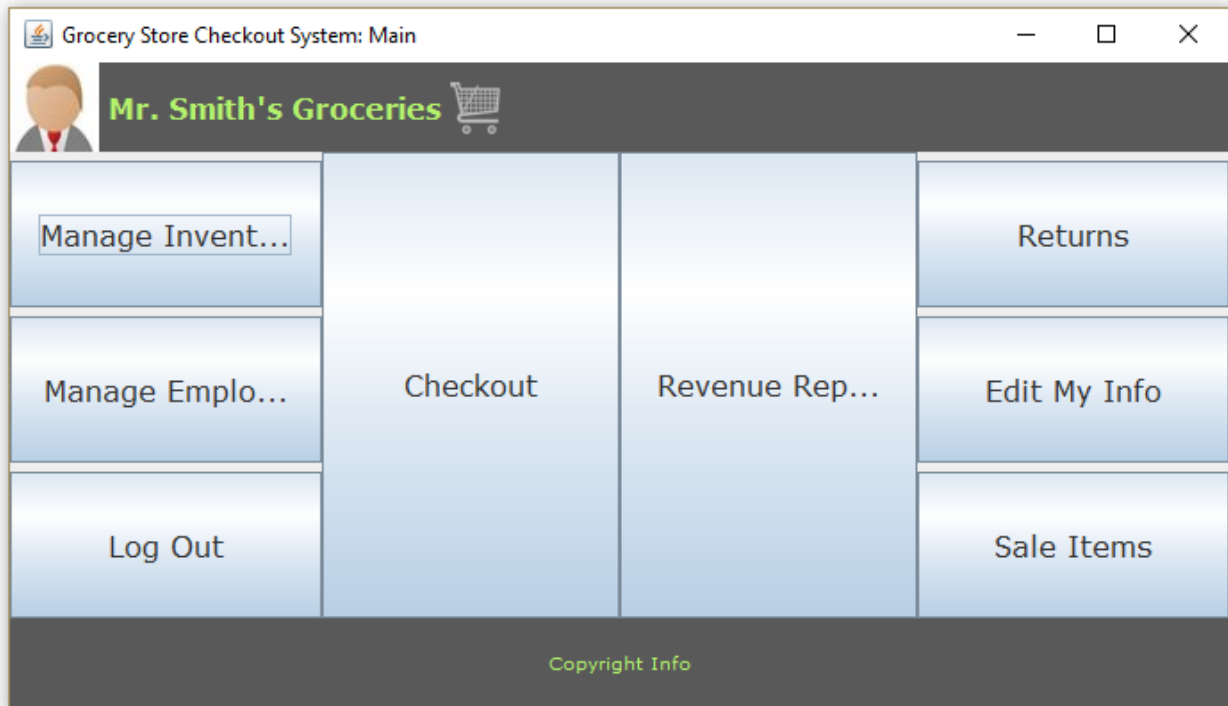


Use Case: Manage Inventory

1. Repeat steps from Login/out Use Case to login.
2. If user access rights is not 1 system will display a Main screen without a "Manage Inventory" button.



3. If user access rights is 1 system will display a Main Screen with a "Manage Inventory" button.



4. User clicks on “Manage Inventory” button.
5. System displays Manage Inventory screen.



6. To add a product to the inventory, user clicks “Add Product” button.
7. System displays Add Product screen.

Grocery Store Checkout System: Add New Product

Mr. Smith's Groceries

Name	
Quantity	0
Price	
Bardcode Number (10 digits beginning with 1)	
Provider Information	
Provider Name	

Cancel Add Item

Copyright Info

8. User enters in product information and clicks on "Add Item."
9. System updates information of the new item in the inventory.
10. To manage existing products user clicks on "Manage Existing Products" button.
11. System displays Manage Product Screen with a default product to manage.

Grocery Store Checkout System: Manage Existing Products

Mr. Smith's Groceries

Pizza

Quantity	12
Price	\$7.99
Bardcode Number (10 digits beginning with 1)	1487596257
Provider Information	123 E 1400 N Logan, Utah 84321 435-753-2121
Provider Name	Little Caesar's Pizza

Cancel Apply Update

Copyright Info

12. User selects which product to manage.
13. System displays information for that product.

Grocery Store Checkout System: Manage Existing Products

Mr. Smith's Groceries

Apple

Quantity	50
Price	\$0.99
Barcode Number (10 digits beginning with 1)	1568494530
Provider Information	568 S 400 S Atlanta, Georgia 48934 895-594-8745
Provider Name	Johnny Appleseed

Cancel Apply Update

Copyright Info

14. User makes necessary changes and clicks on “Apply Update” button.
15. System updates product information.
16. To check product availability user selects “Show Availability” button.
17. System displays list of products and their quantities.

Grocery Store Checkout System: Product Availability

Mr. Smith's Groceries

Apple: 50

Banana: 67

Coca-Cola: 24

Carrots: 13

Bread: 12

Potatoes: 88

Tuna: 39

Pizza: 12

Return

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Use Case: Change Display Information

1. Repeat steps from Login/out Use Case to login.

2. User clicks “Edit My Info” button.
3. System displays Edit My Info screen

Grocery Store Checkout System: Edit My Info

Mr. Smith's Groceries

Username (max 30 characters) Barbara B

New Password (max 30 characters, leave empty to retain password)

File Path (click button for file system) data/middle-aged-woman-brown-hair.png

Apply Update Image From File Cancel

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4. User changes info and clicks on “Apply Update” button.
5. System updates employee information and returns to Main Screen.
6. If user changes their password system displays a confirm password screen.

Grocery Store Checkout System: Edit My Info

Mr. Smith's Groceries

Username (max 30 characters) Barbara B

New Password (max 30 characters, leave empty to retain password)

File Path (click button for file system) data/middle-aged-woman-brown-hair.png

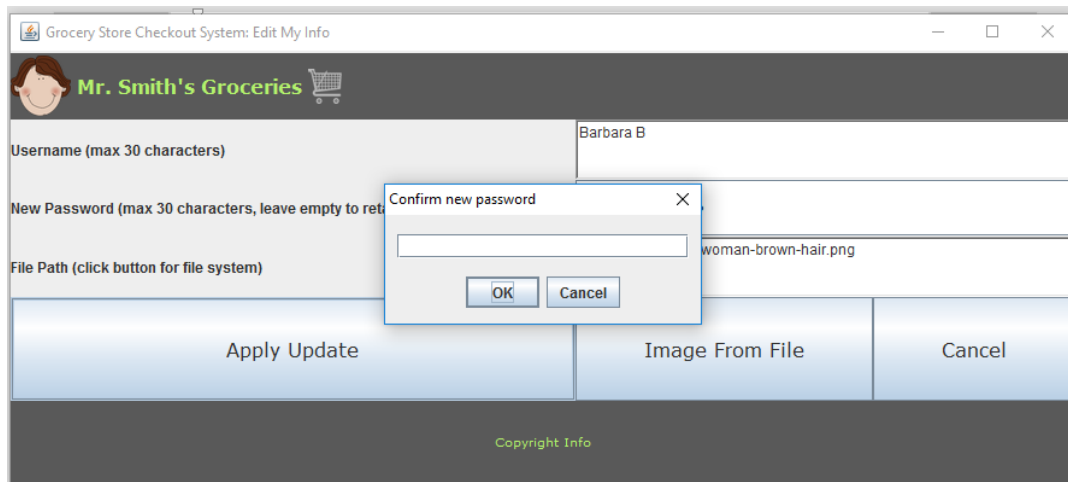
Apply Update Image From File Cancel

Copyright Info

Confirm new password

OK Cancel

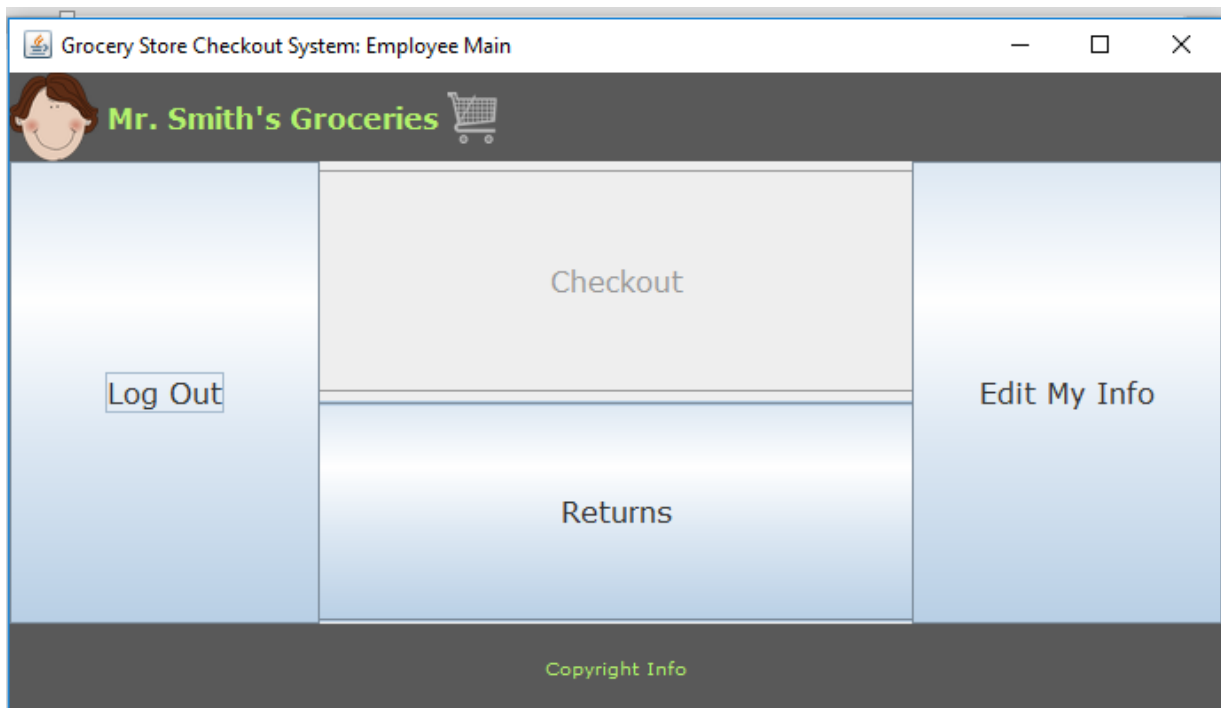
7. User types in new password.
8. If password is wrong system displays error message.



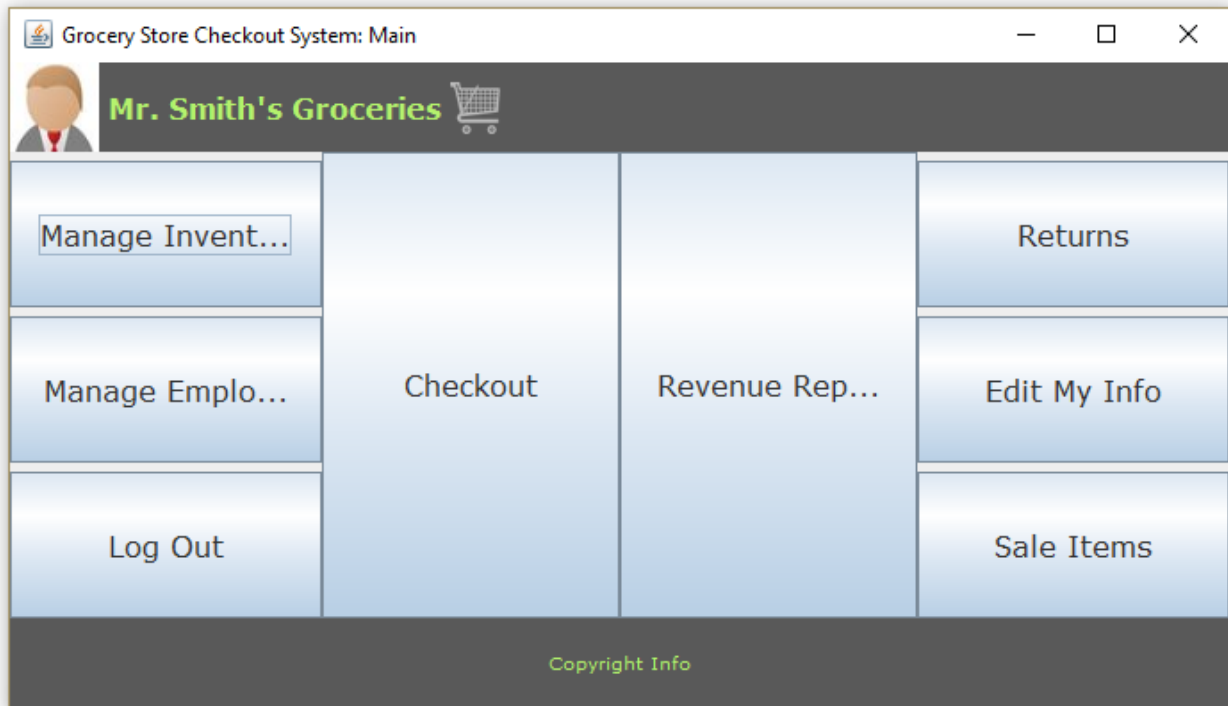
9. If password is correct system updates employee information.

Use Case: Manage Employees and Access Rights

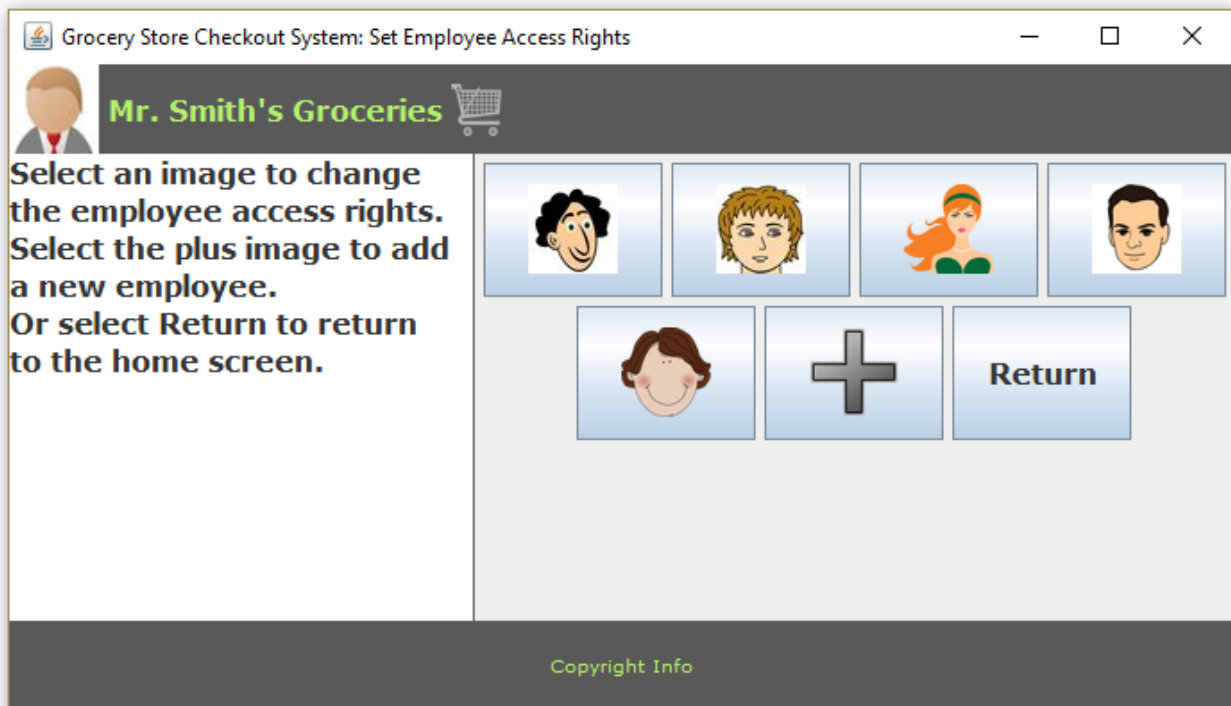
1. Repeat steps from Login/out Use Case to login.
2. If user access rights is not 1 system will display a Main screen without a “Manage Employees” button.



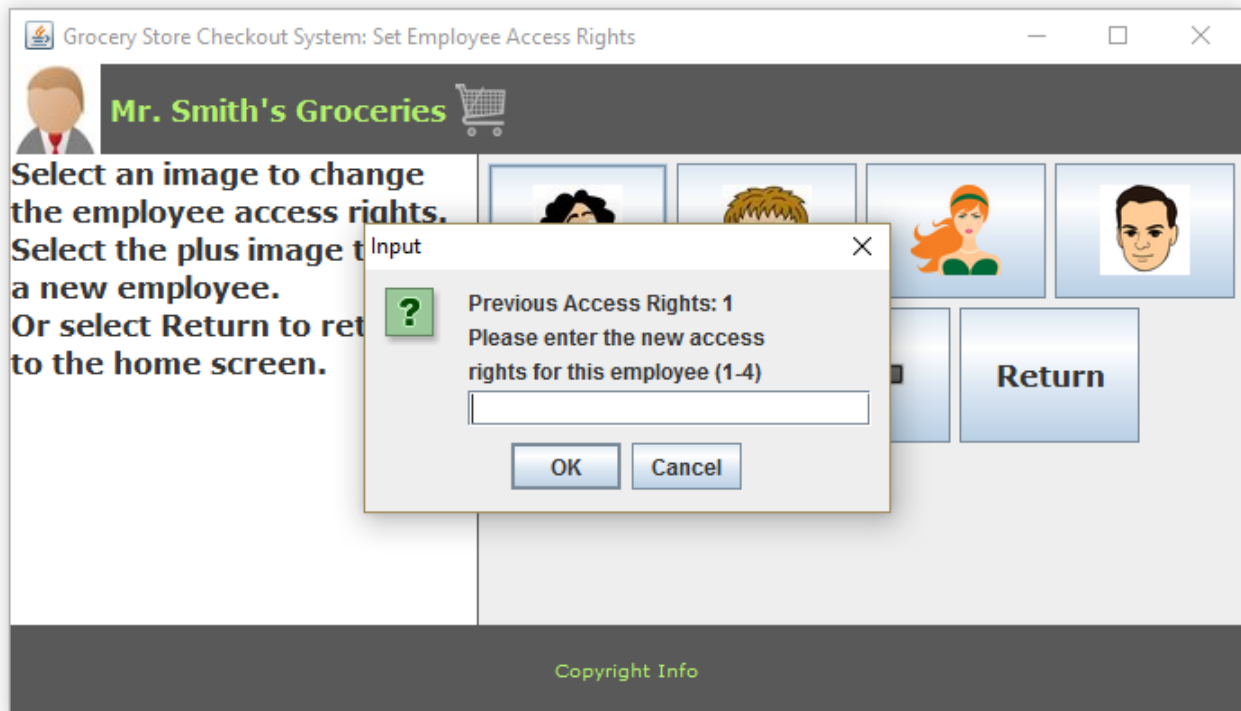
3. If user access rights is 1 system will display a Main Screen with a “Manage Employees” button.



4. User clicks on “Manage Employees” button.
5. System displays the Manage Employees screen.



6. User clicks on an employee icon.
7. System displays a change access rights screen.



8. User types in new access rights level.
9. System updates employee access rights information.
10. To create new employee user clicks on “+” icon
11. System displays add new employee screen

Grocery Store Checkout System: Add New Employee

Mr. Smith's Groceries

Name

Password

Image Path

Access Rights level

data/man_silhouette_clip_art.jpg

1

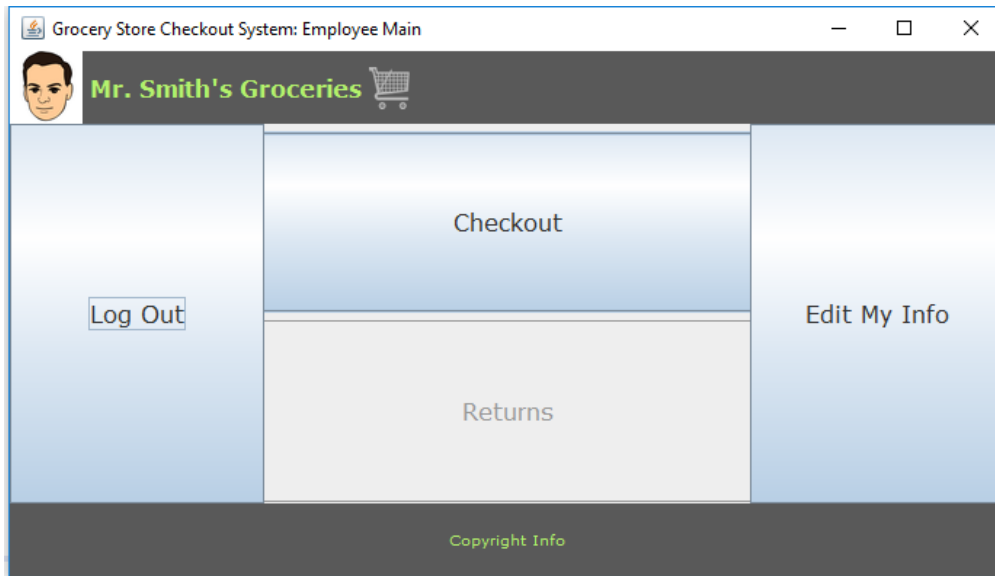
Return Create

Copyright Info

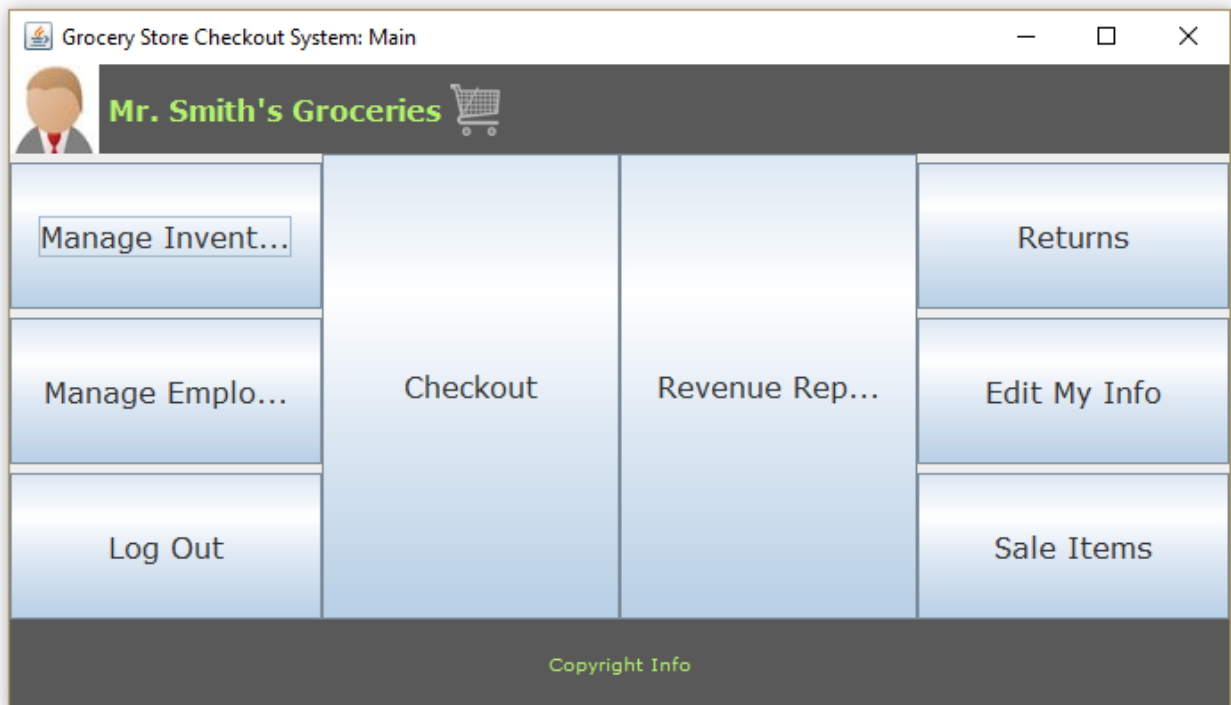
12. User types in employee information and clicks on “Create” button
13. System creates new employee in the database and returns to manage employees screen

Use Case: Return Items

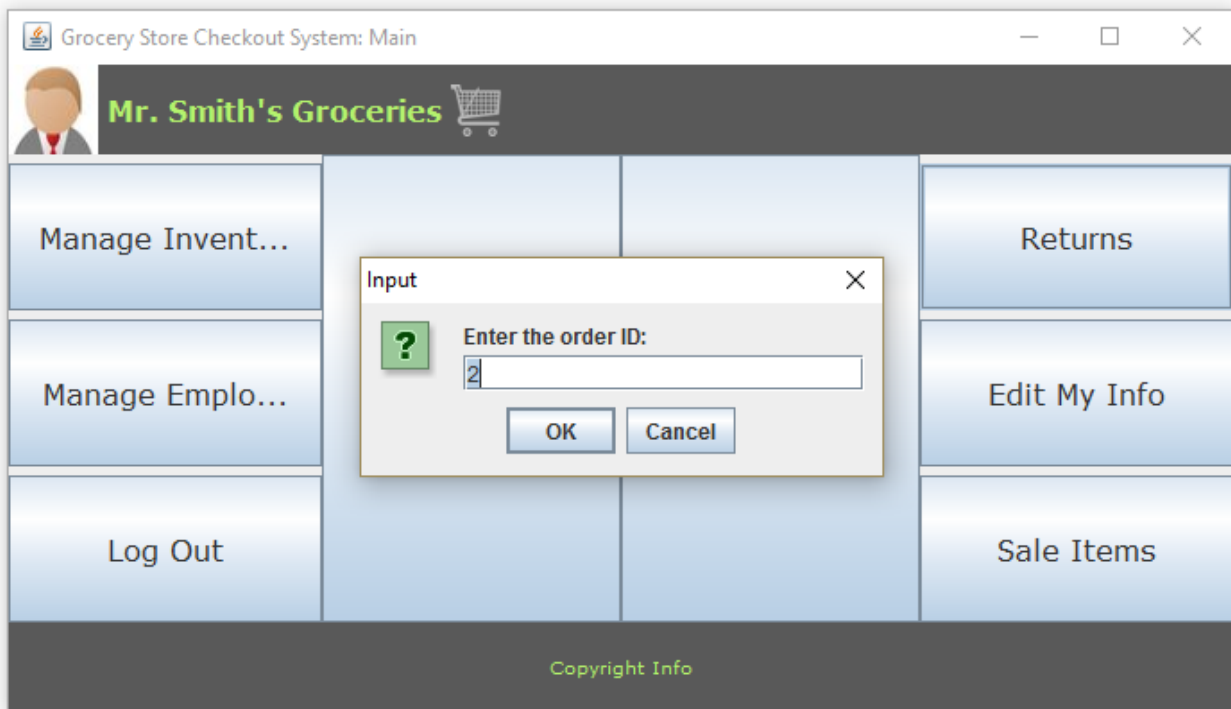
1. Repeat steps 1-5 from Login/out Case.
2. If user access rights is not 1,2 or 4 system will display a Main screen with a disabled “Returns” button.



3. If user access rights is 1, 2 or 4 system will allow user to click on “Returns” button.

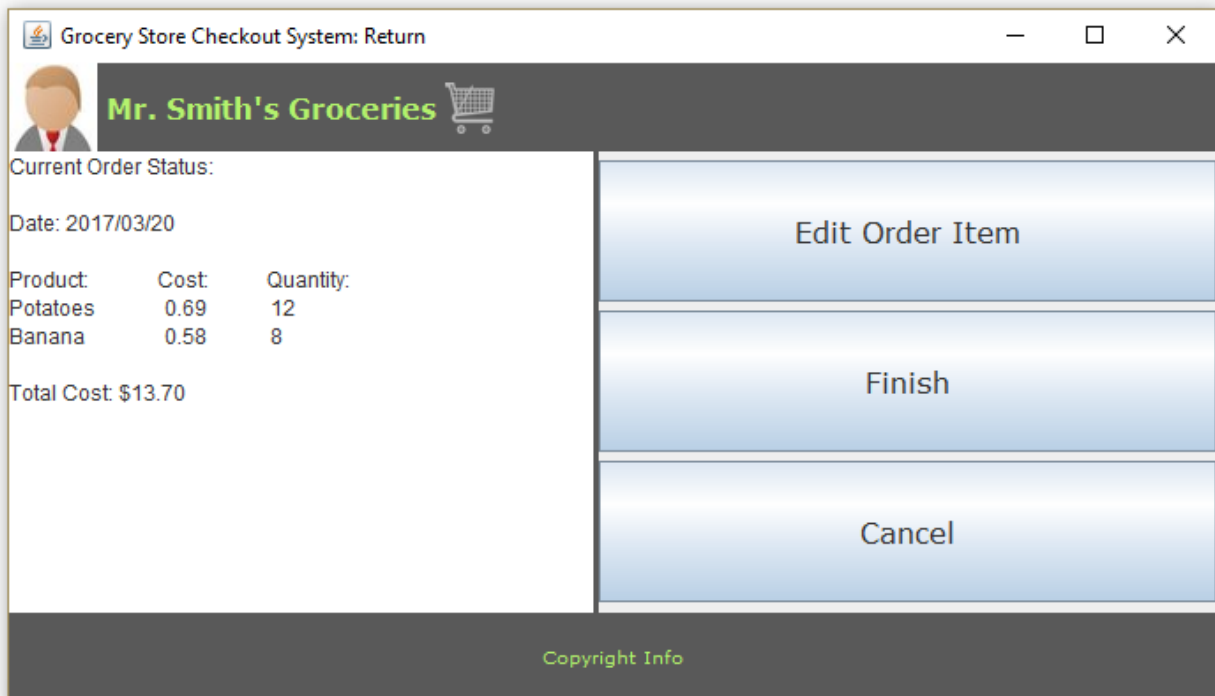


4. System then displays Return Order screen.



5. User types in the order number.



6. System displays order information.



7. User clicks "Edit Order Item."

8. System displays Input screens.

Grocery Store Checkout System: Return

 **Mr. Smith's Groceries** 

Current Order Status:

Date: 2017/03/20

Product:	Cost:	Quantity:
Potatoes	0.69	12
Banana	0.58	8

Total Cost: \$13.70

Input

Enter a product name:

OK Cancel



Edit Order Item

Finish

Cancel

Copyright Info

Grocery Store Checkout System: Return

 **Mr. Smith's Groceries** 

Current Order Status:

Date: 2017/03/20

Product:	Cost:	Quantity:
Potatoes	0.69	12
Banana	0.58	8

Total Cost: \$13.70

Input

Enter a quantity to remove

OK Cancel

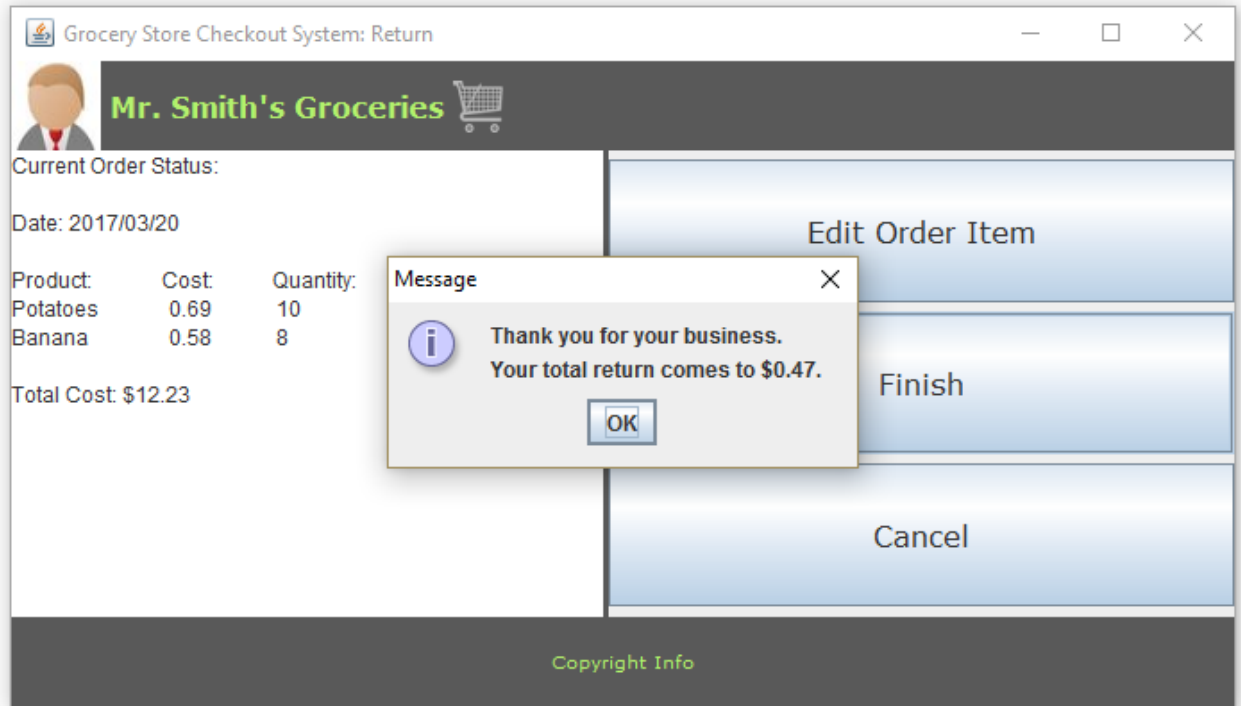
Edit Order Item

Finish

Cancel

Copyright Info

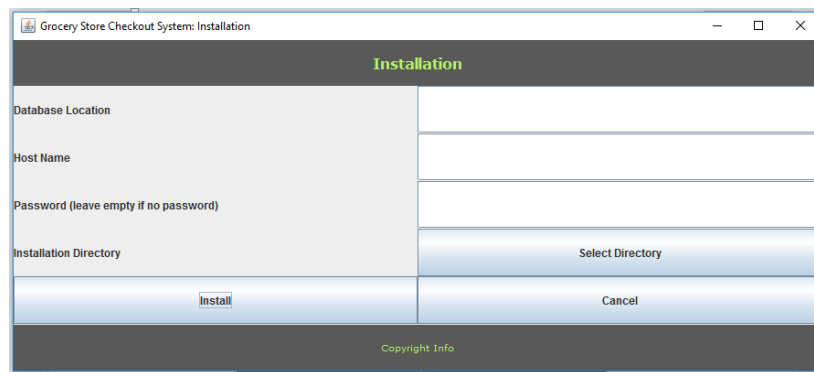
9. User types in product name and quantity they wish to return.
10. System updates order list and displays refund amount.



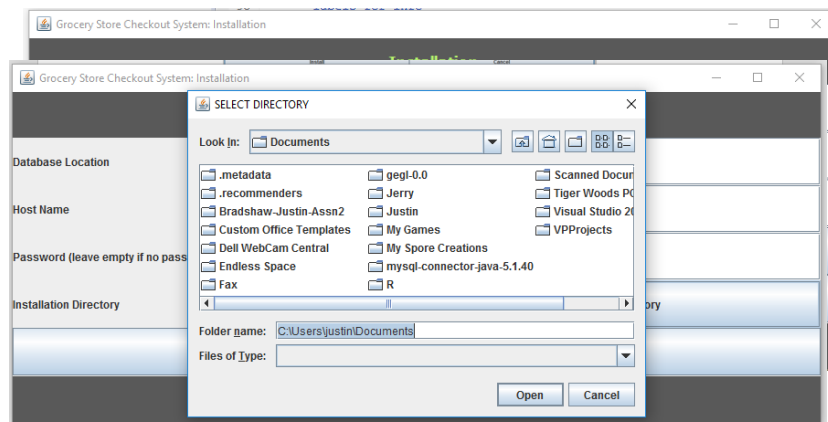
Use Case: Installation

Note: If at any point the user selects cancel from the main screen, the program will exit

1. System displays the installation screen

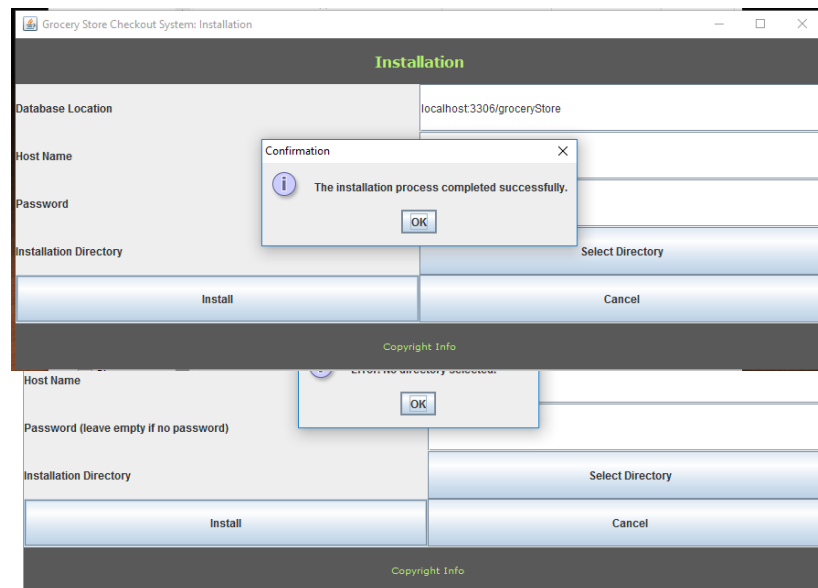


2. User enters the database location, host name, and password
3. User presses the select directory button
4. The File System directory is displayed
 - a. If the user selects a directory, the directory is stored
 - b. If the user selects cancel, no directory is stored

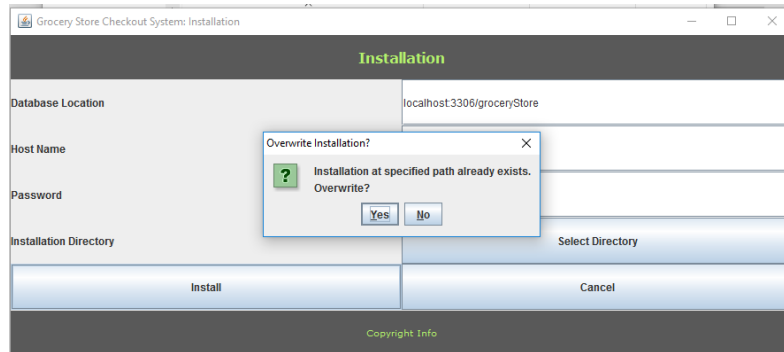


5. The user selects the install button
 - a. If they have left any entries empty other than the password, an error message is displayed (if empty directory, empty directory error message is displayed)

6. If all entries are valid, the installation process completes and a confirmation message appears

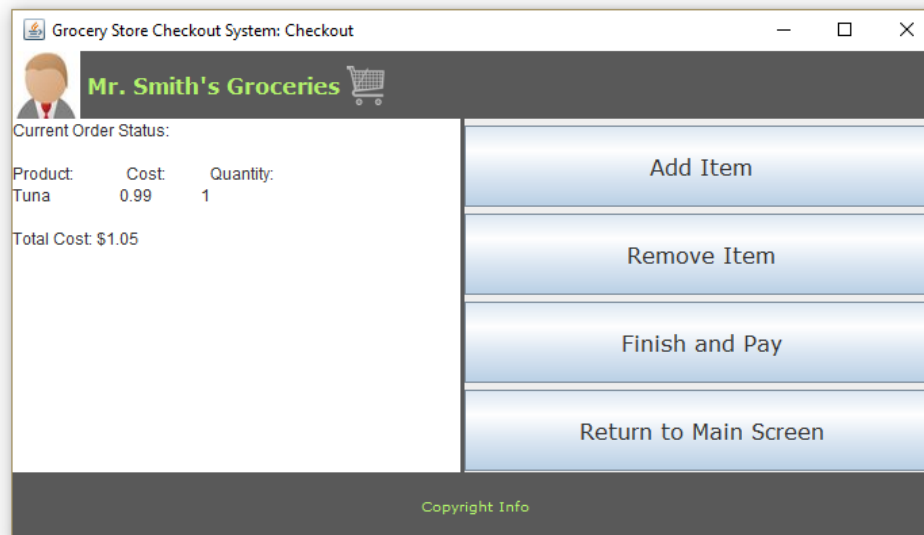


7. If the program already exists at the installation location, the user may select whether or not to override the current installation.

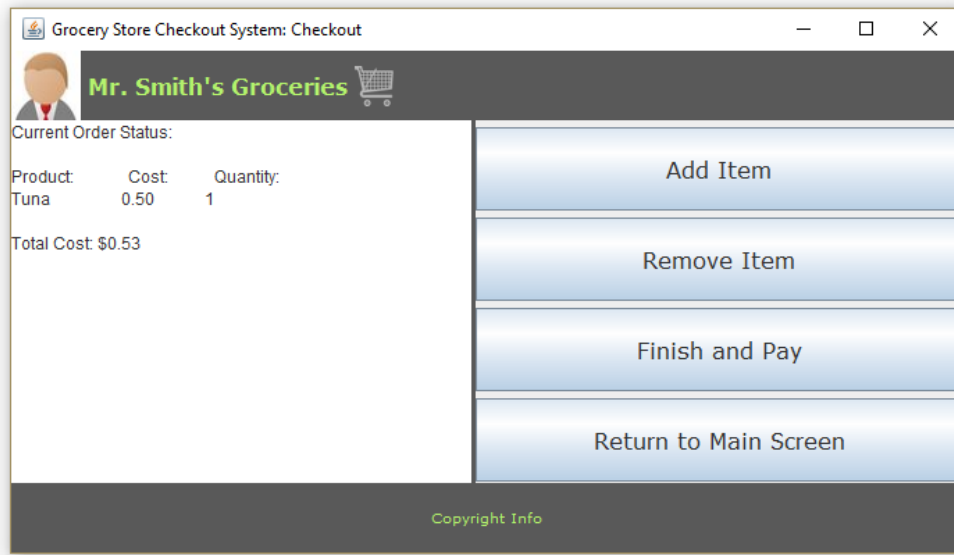


Use Case: Loyal Program Customers

1. Repeat steps from Login/out Use Case to login.
2. Repeat steps from Checkout Use Case.
3. At check-out point if the customer is not in the Loyal Program items on sale will be at their normal price.

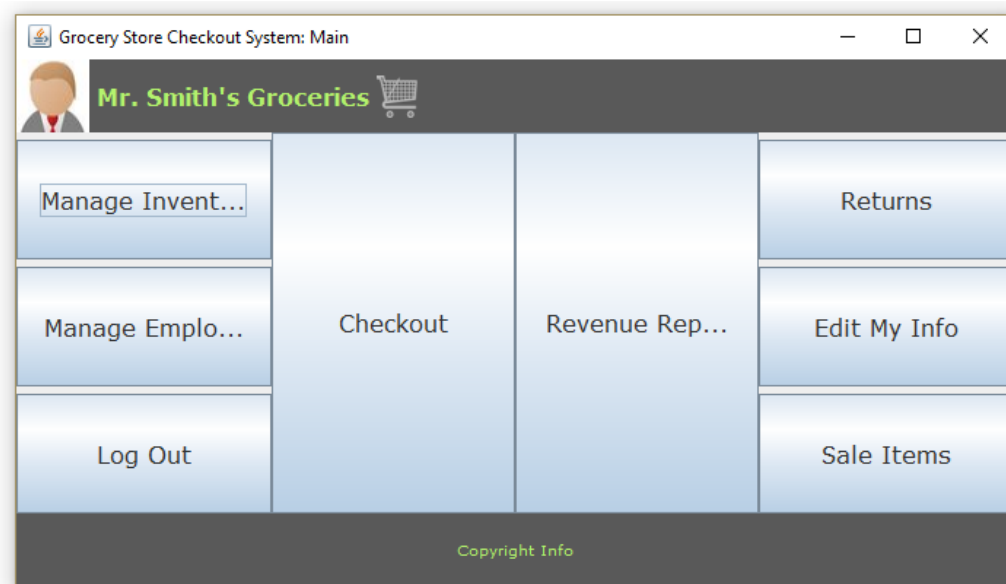


4. If the customer is in the Loyal Program items on sale will be at a discounted price.



Use Case: Discount Prices

1. Repeat steps from Login/out Use Case to login.
2. System displays main screen



3. User clicks on "Sale Items" button.
4. System displays Manage Sale Items screen with all sales.

Grocery Store Checkout System: Manage Sale Items

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: End Date:

Product	Sale Price	Start Date	End Date
Apple	\$ 0.79	2017/03/31	2017/04/10
Carrots	\$ 1.00	2017/04/01	2017/04/30
Bread	\$ 1.99	2017/04/15	2017/04/30
Pizza	\$ 6.99	2017/05/01	2017/05/31

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5. User clicks on "Add" button to add a sale
6. User clicks on "Remove" button to remove sale.
 - a System displays input screen.

Grocery Store Checkout System: Manage Sale Items

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: End Date:

Product	Sale Price	Start Date	End Date
Apple	\$ 0.79	2017/03/31	2017/04/10
Carrots	\$ 1.00	2017/04/01	2017/04/30
Bread	\$ 1.99	2017/04/15	2017/04/30
Pizza	\$ 6.99	2017/05/01	2017/05/31

Input

Enter a product name:

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- b User enters in product name of the corresponding sale to remove.
- c System removes sale and an updated Manage Sale Items screen is displayed.

Grocery Store Checkout System: Manage Sale Items

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: End Date:

Product	Sale Price	Start Date	End Date
Carrots	\$ 1.00	2017/04/01	2017/04/30
Bread	\$ 1.99	2017/04/15	2017/04/30
Pizza	\$ 6.99	2017/05/01	2017/05/31

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7. User clicks on "Edit Existing" button to edit existing sales.
 - a. System displays input screen.

Grocery Store Checkout System: Manage Sale Items

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: End Date:

Product	Sale Price	Start Date	End Date
Carrots	\$ 1.00	2017/04/01	2017/04/30
Bread	\$ 1.99	2017/04/15	2017/04/30
Pizza	\$ 6.99	2017/05/01	2017/05/31

Input

Enter the item name

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- b.
 - c. User enters in item name.
 - d. System displays the corresponding sale information.

Grocery Store Checkout System: Add New Sale Item

Mr. Smith's Groceries

Name: Carrots

Price: 1.0

Start Date (YYYY/MM/DD) : 2017/04/01

End Date (YYYY/MM/DD) : 2017/04/30

Update Cancel

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- e. User edits information and clicks “Update” button.
- f. System updates sale information.
8. User clicks on “Remove Expired” button.
 - a. System removes all expired sales from the list and the database.
9. User enters in a date range at the top of the screen and clicks “Show Range”
 - a. System displays all sales within the date range.

Grocery Store Checkout System: Manage Sale Items

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: 2017/04/01 End Date: 2017/04/30 Show Range

Product	Sale Price	Start Date	End Date
Carrots	\$ 1.00	2017/04/01	2017/04/30
Bread	\$ 1.99	2017/04/15	2017/04/30

Add Remove Remove Expired Show All Edit Existing Return

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10. User clicks on “Show All” button.
 - a. System displays all sales in the database.

Product	Sale Price	Start Date	End Date
Carrots	\$ 1.00	2017/04/01	2017/04/30
Bread	\$ 1.99	2017/04/15	2017/04/30
Pizza	\$ 6.99	2017/05/01	2017/05/31
Tuna	\$ 0.50	2017/03/30	2017/04/30

Use Case: Reward Points

1. Repeat steps from Login/out Use Case to login.
2. Repeat steps from Checkout Use Case.
3. At check-out point after user clicks on "Finish and Pay" button if Customer is part of the Loyal Program and has earned 100 or more rewards points system will display screen to use reward points.

Current Order Status:

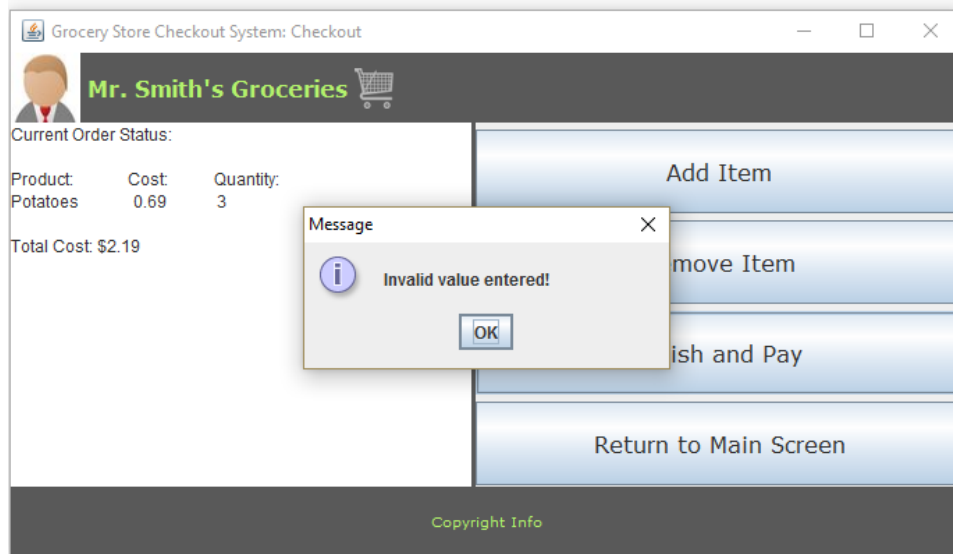
Product	Cost	Quantity
Bread	1.99	2

Total Cost: \$4.22

How many reward points would you like to use for this order?
 Input value should be an evenly divisible by 100
 Current Points: 200

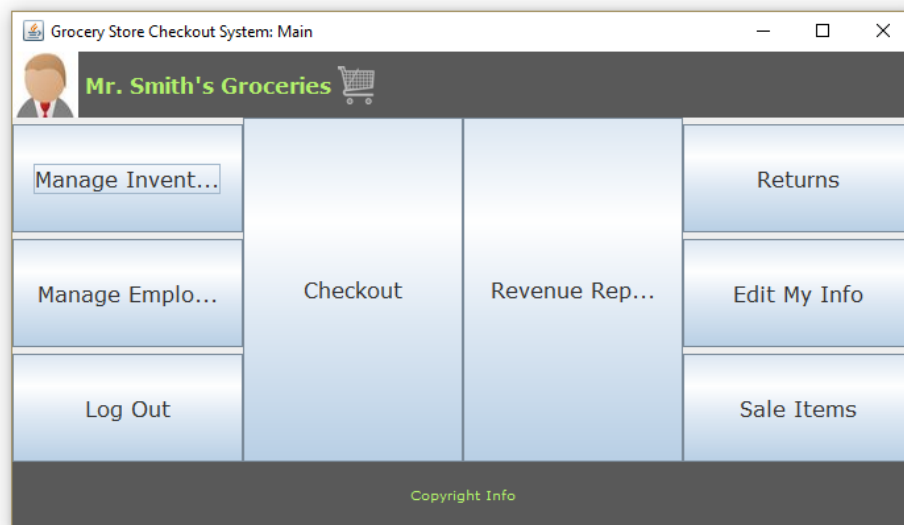
OK Cancel

4. User enters in number of reward points customer wishes to use.
5. If user enters in a number not evenly divisible by 100 system will display error message

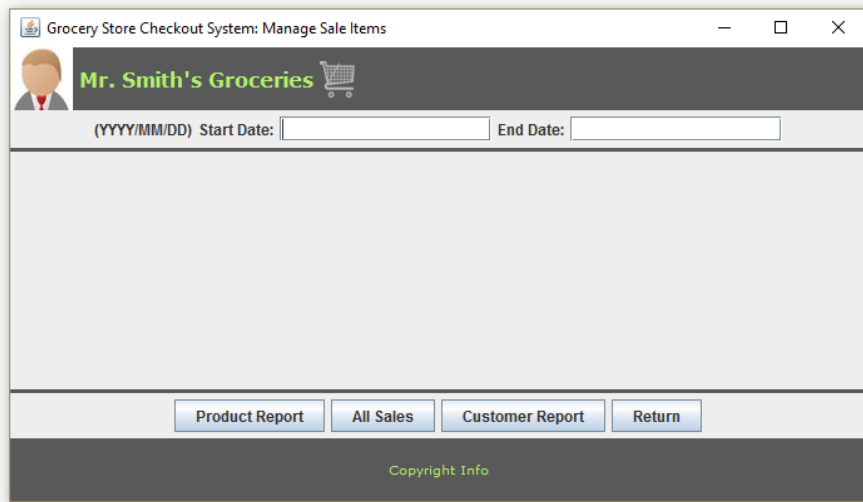


Use Case: Revenue Reports

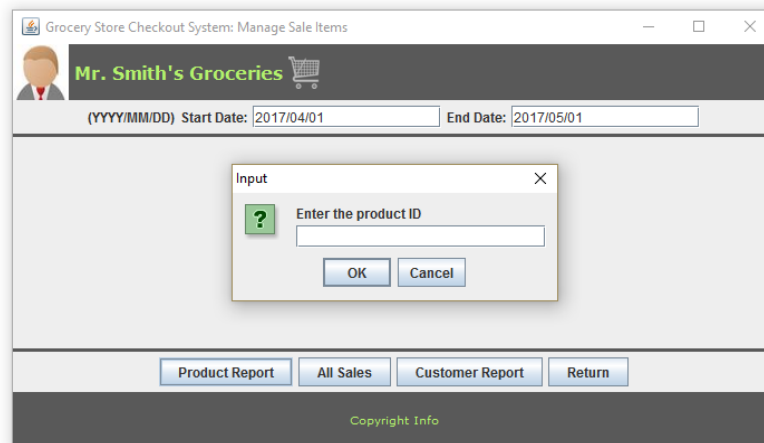
1. Repeat steps from Login/out Use Case to login.
2. System displays main screen.



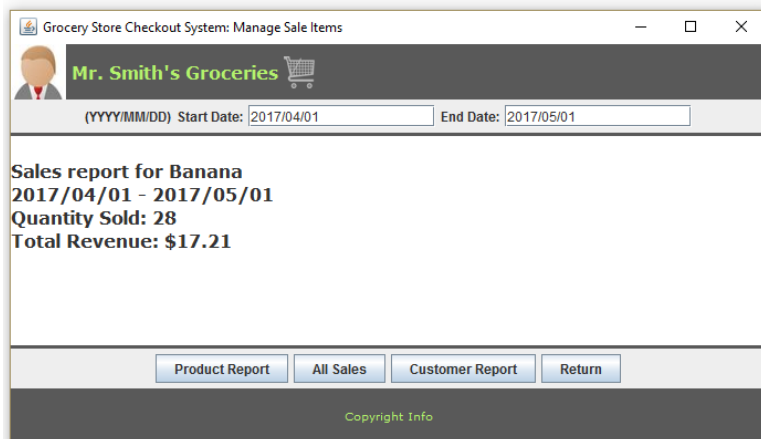
3. User clicks on "Revenue Reports" button.
4. System displays Revenue Reports screen.



5. User enters in a start date and end date at the top of the screen and clicks on “Product Report” button.
 - a. System displays input screen.



- b. User enters in product ID
 - c. System displays product revenue report at given date range.



6. User enters in a start date and end date at the top of the screen and clicks on “Customer Report” button.
 - a. System displays input screen.

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: 2017/04/01 End Date: 2017/05/01

Sales report for Bananas
 2017/04/01 - 2017/05/01
 Quantity Sold: 28
 Total Revenue: \$17.21

Input

Enter the customer ID

OK Cancel

Product Report All Sales Customer Report Return

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- b. User enters in Customer ID.
 - c. System displays customer revenue report at given date range.

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: 2017/04/01 End Date: 2017/05/01

Sales report for Mason Jones
 2017/04/01 - 2017/05/01
 Total Orders: 2
 Total Revenue: \$96.05

Product Report All Sales Customer Report Return

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7. User clicks on “All Sales” button.
 - a. System displays revenue for all products.

Mr. Smith's Groceries

(YYYY/MM/DD) Start Date: 2017/04/01 End Date: 2017/05/01

Product	Quantity	Revenue
Tuna	13	\$ 12.87
Coca-Cola	6	\$ 4.50
Carrots	20	\$ 24.50
Potatoes	36	\$ 24.84
Banana	28	\$ 16.24
Bread	5	\$ 11.48
Pizza	21	\$ 167.79
Apple	2	\$ 1.98
		Total Revenue: \$ 280.05

Product Report All Sales Customer Report Return

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