

Group Number: 11

Group Members: Abdullah Shafique, Jason Michel

Project Title: Shop-Mart

Requirement specification

Functional Requirements:

When the application begins, it shows a login window. Depending on the user that logs in (Customer or Seller), the system will perform different functions. When a customer logs in, the system loads a window where he/she can browse a list of available products that displays their product name, price, and available quantity. From this window, the customer can select products and add them to the shopping cart or click on a product and get the full description, pricing and availability (quantity available) in a pop-up window. The customer can add the product to the shopping cart depending on availability. The shopping cart total amount is kept current on the main product browse window. The customer can proceed to checkout at any time. On the checkout window, the shopping cart can be updated by changing the item count for each product in the cart. At checkout the customer verifies the shopping cart content and pays for the goods by supplying credit card information. The application does not account for shipping. When a seller logs in, the system opens a window showing the current state of his/her inventory. The seller can add products to his/her inventory by specifying the product's name, invoice price, and sell price. Also the seller can update the available quantity of each product. The application keeps track of all costs, revenues and profits. The seller can access this information from the application UI.

Use Cases:

User Logs In:

1. User enters in username and password
2. System verifies the information and lets either the seller or customer into the program

Variation #1:

1. Start at Step 1
2. An error message pops up telling the user that the information is incorrect

Customer Adds Items to Shopping Cart:

1. Customer carries out Log In
2. Customer selects an item from the window
3. A window pops up with the item's description, pricing, and availability

4. Customer selects "Add Item to Cart"
5. Item is added to Shopping Cart

Variation #1:

1. Start at Step 3
2. There are no items available
3. An error message pops up telling the customer that there are no items available

Variation #2:

1. Start at Step 5.
2. Customer attempts to Log-off.
3. The system displays a prompt stating: "Logging off now will clear all items within your cart. Are you sure you want to Log-off?"
4. Customer selects "yes" option to Log-off.

Customer Reviews Product Details:

1. Customer carries out Log In
2. Customer selects an item from the window
3. A window pops up with the item's description, pricing, and availability

Customer Reviews/Updates Shopping Cart:

1. Customer carries out Log In
2. Customer selects the Shopping Cart button
3. A window pops up with all the items in the cart including the quantity of each item
4. Customer changes the amount of an item that he wants

Variation #1:

1. Start at Step 4
2. There are not enough items available
3. An error message pops up telling the customer to lower the amount of items

Customer Checks Out:

1. Customer carries out Log In
2. Customer selects the Shopping Cart button
3. A window pops up with all the items in the cart including the quantity of each item
4. Customer selects check out
5. A window pops up asking the customer for credit card information

Seller Reviews Product(s) Details:

1. Seller carries out login.
2. A window opens showing the current status of the seller's inventory.
3. The Seller selects an item from the window.
4. The system generates a window containing the products name, invoice price, sell price, and quantity.
5. The seller upon reviewing information, closes the window.
6. Seller Logs-off.

Seller Adds New Product:

1. Seller carries out login.
2. A window opens showing the current status of the seller's inventory.
3. The seller chooses the option to add a product to the inventory.
4. The system provides fields in which the seller must provide the product name, invoice price, and sell price.
5. To add the product, the seller enters the required information.
6. The system shows the user's inventory with the new product contained in it.
7. Seller Logs-off.

Variation #1:

1. Start at Step 5.
2. The system recognizes that the seller already has the product that he/she entered and displays a prompt: "You already contain the item you entered. Please enter another product."
3. The seller selects "ok" to close prompt.
4. Go to step 4.

Variation #2:

1. Start at Step 5.
2. The system recognizes that the seller entered an invalid value in one or more of the fields and displays prompt: "Invalid Information."
3. The seller selects "ok" to close prompt.
4. Go to step 4.

Seller Updates Existing Product in Inventory:

1. Seller carries out login.
2. A window opens showing the current status of the seller's inventory.
3. The Seller selects an item from the window.
4. The system generates a window containing the products name, invoice price, sell price, and quantity.
5. The seller updates the information.
6. The system updates the selected item.
7. Seller Logs-off.

Variation #1:

1. Start at step 5.
2. The system recognizes that the seller entered an invalid value in one or more of the fields and displays prompt: "Invalid Information."
3. The seller selects "ok" to close prompt.
4. Go to step 4

Seller Deletes Existing Product in Inventory:

1. Seller carries out login.
2. A window opens showing the current status of the seller's inventory.
3. The Seller selects an item from the window.

4. The system generates a window containing the products name, invoice price, sell price, and quantity.
5. The seller selects the “delete product” button and specifies the amount.
6. The system displays a prompt: “Are you sure you want to delete this product?”
7. The seller confirms his/her choice.
8. The system removes the item selected by the seller.
9. The seller Logs-off

Variation #1:

1. Start at step 6.
2. The seller chooses no.
3. Go to 4.

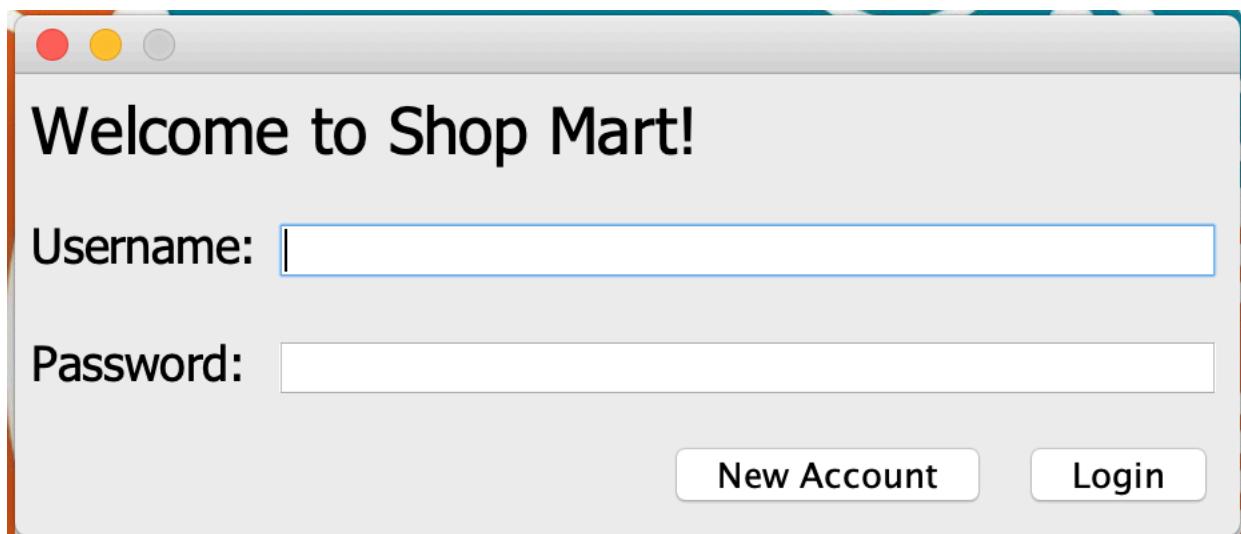
Seller Checks Profit/Revenue/Cost:

1. Seller carries out login.
2. A window opens showing the current status of the seller's inventory..
3. The seller select the “show PRC(profit/revenue/Cost)” option
4. The system generates a prompt displaying the requested information and waits for the user to click the ok button to close the prompt.
5. The seller closes the prompt and Logs-off.

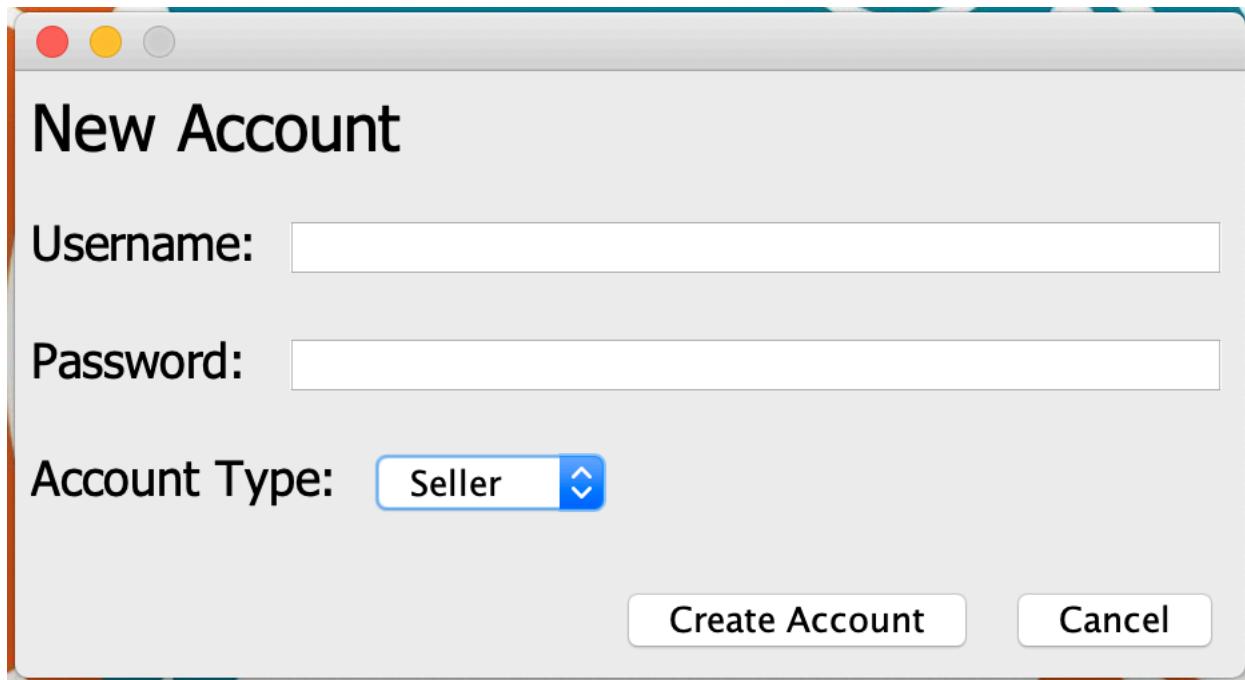
Design Specification

GUI:

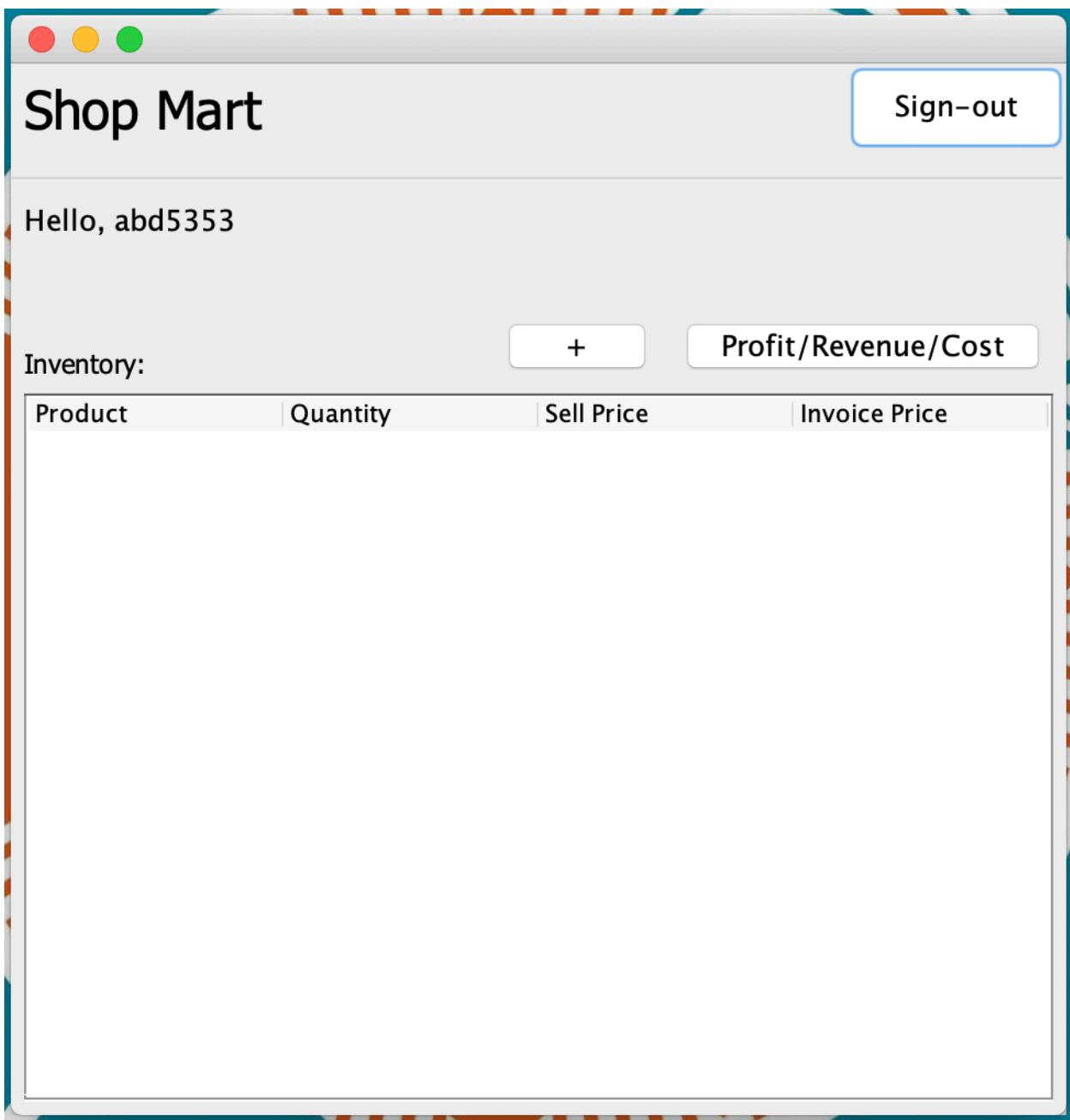
LoginView:



SignUpView:



SellerController:



AddProduct:

The screenshot shows a Mac OS X style window titled "Shop Mart". The window has a title bar with three buttons (red, yellow, green) and a decorative border. Inside, there's a header "Add a New Product to Inventory:" followed by three input fields with placeholder text ("Name of Product:", "Invoice Price:", "Sell Price:") and a "Cancel" button at the bottom left and an "Add Product" button at the bottom right.

Shop Mart

Add a New Product to Inventory:

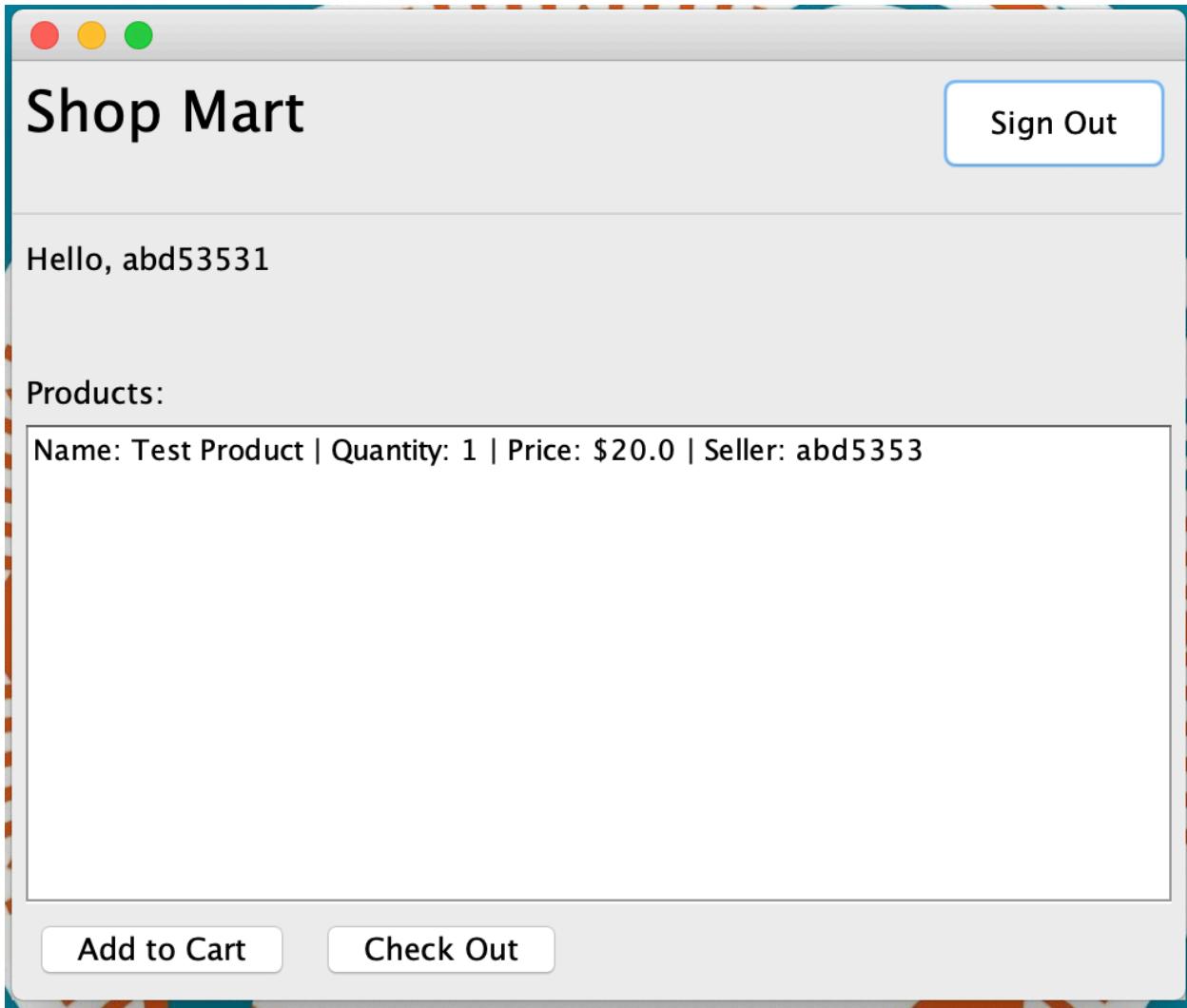
Name of Product:

Invoice Price:

Sell Price:

Cancel Add Product

CustomerController:



CheckOutView:



Shop Mart

Shopping Cart:

[Remove Item](#)

Name: Test Product | Quantity: 1 | Price: \$20.0 | Seller: abd5353

Credit Card #:

[Check Out](#)

[Clear Cart and Start Over](#)

CRC Cards:

Interface	User
<ul style="list-style-type: none">• Review Product Details• Add to Collection• Review/Update Collection	<ul style="list-style-type: none">• None

Customer	
<ul style="list-style-type: none">• Review Product Details (name, price, available quantity)• Add to Collection (Shopping Cart)• Review/Update Collection (Shopping Cart)• Checkout (Shopping Cart)	<ul style="list-style-type: none">• User• Shopping Cart

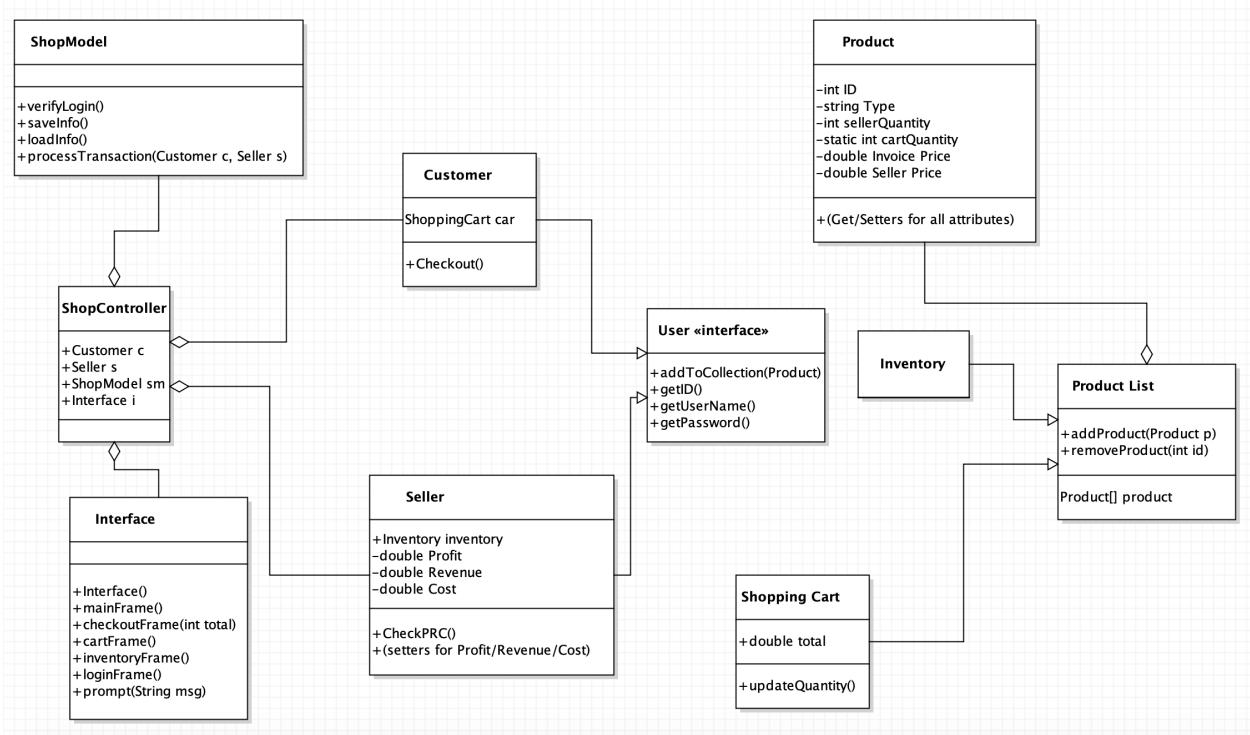
Seller	
<ul style="list-style-type: none">• Review Product Details (products name, invoice price, sell price)• Add to Collection (Inventory)• Review/Update Collection (Inventory)• Check PRC(Profit-Revenue-Cost)	<ul style="list-style-type: none">• User• Inventory

Product	
<ul style="list-style-type: none">• Store product information (ID, Type, Seller Quantity, Cart Quantity, Invoice Price, Seller Price)	<ul style="list-style-type: none">• None

Abstract	ProductList
<ul style="list-style-type: none">• Add/Remove product(s)	<ul style="list-style-type: none">• Product

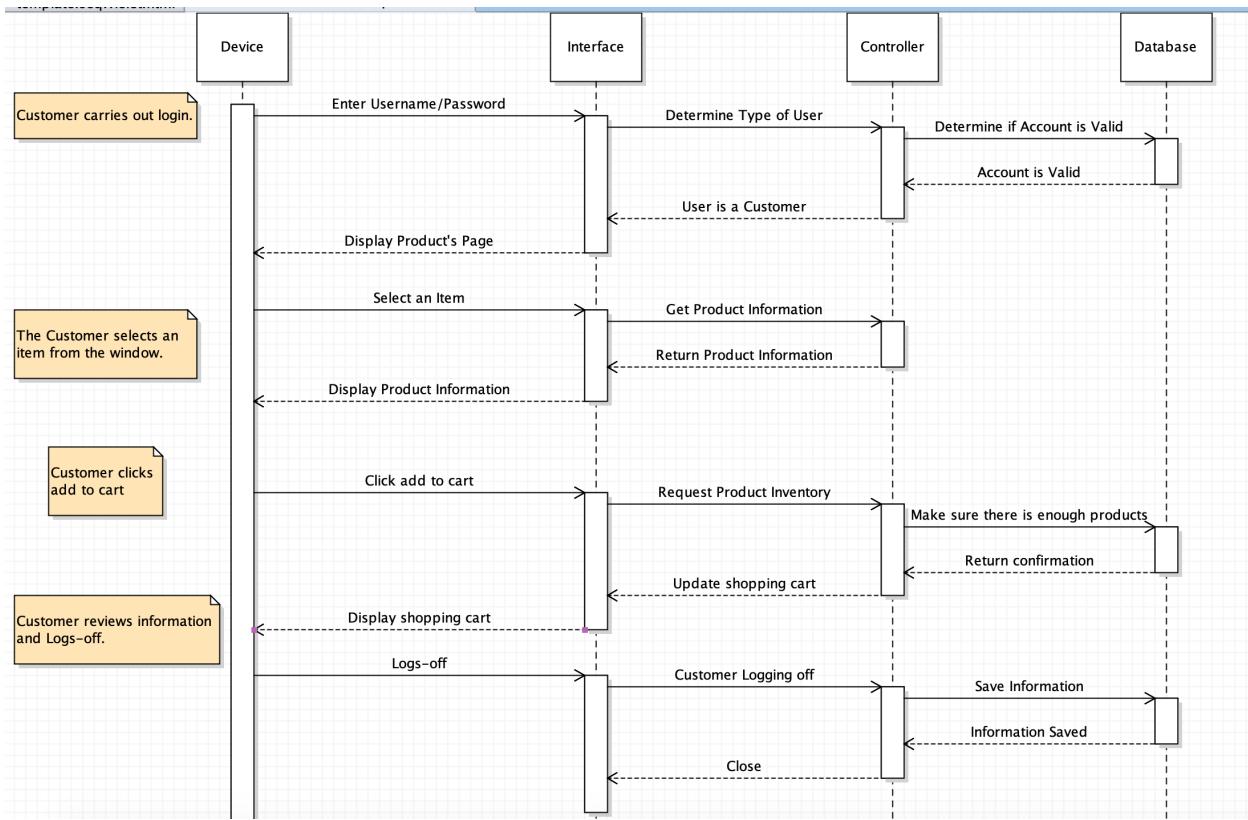
ShoppingCart	
<ul style="list-style-type: none"> • Manage Products (ProductList) • Keep Track of Total 	<ul style="list-style-type: none"> • Product List
Inventory	
<ul style="list-style-type: none"> • Manage Products (Product List) 	<ul style="list-style-type: none"> • Product List
Interface	
<ul style="list-style-type: none"> • Display Products • Switches Between Frames (Main Frame, Checkout Frame, etc...) 	<ul style="list-style-type: none"> • None
ShopModel	
<ul style="list-style-type: none"> • Verify Log-in • Save/Load Information • Process Transaction 	<ul style="list-style-type: none"> • None
ShopController	
<ul style="list-style-type: none"> • Control interactions between Customer and Seller 	<ul style="list-style-type: none"> • ShopModel • Interface • Customer • Seller

UML Class Diagram(s):

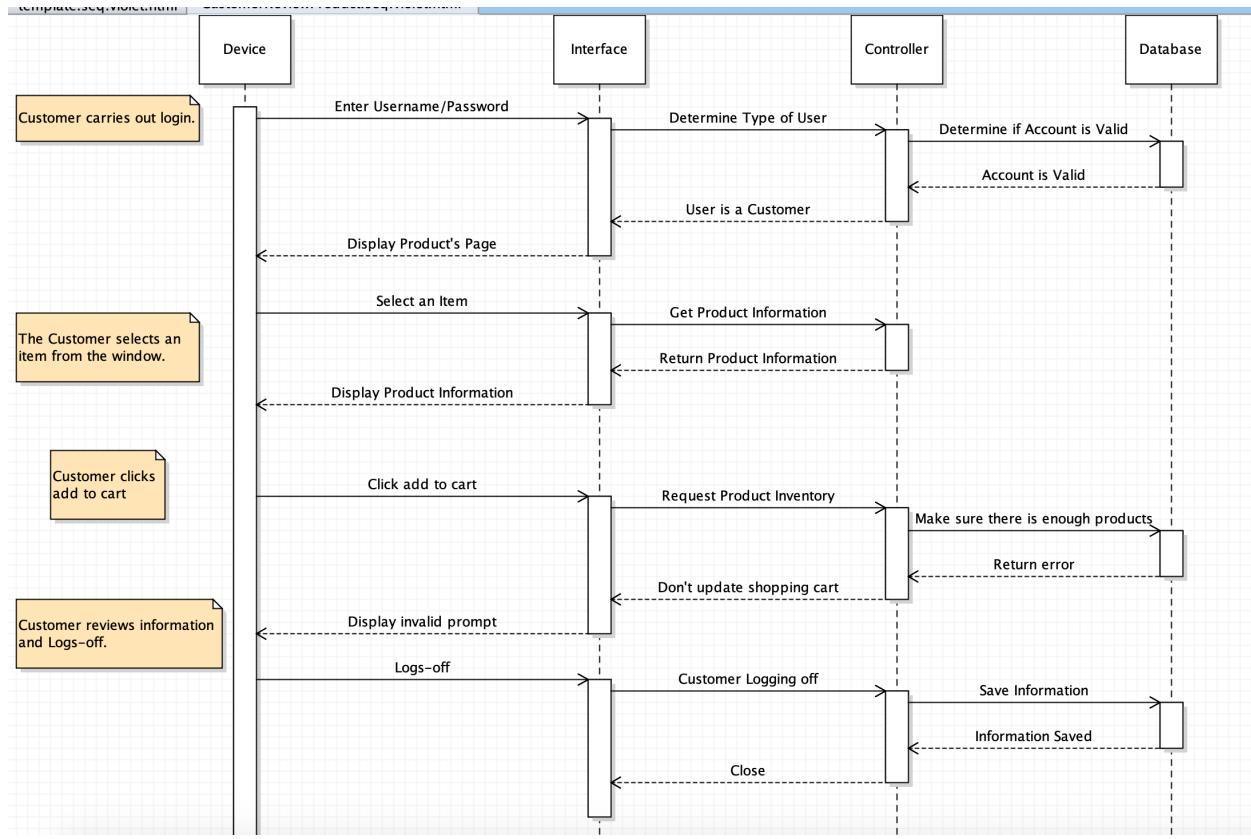


Sequence Diagram(s):

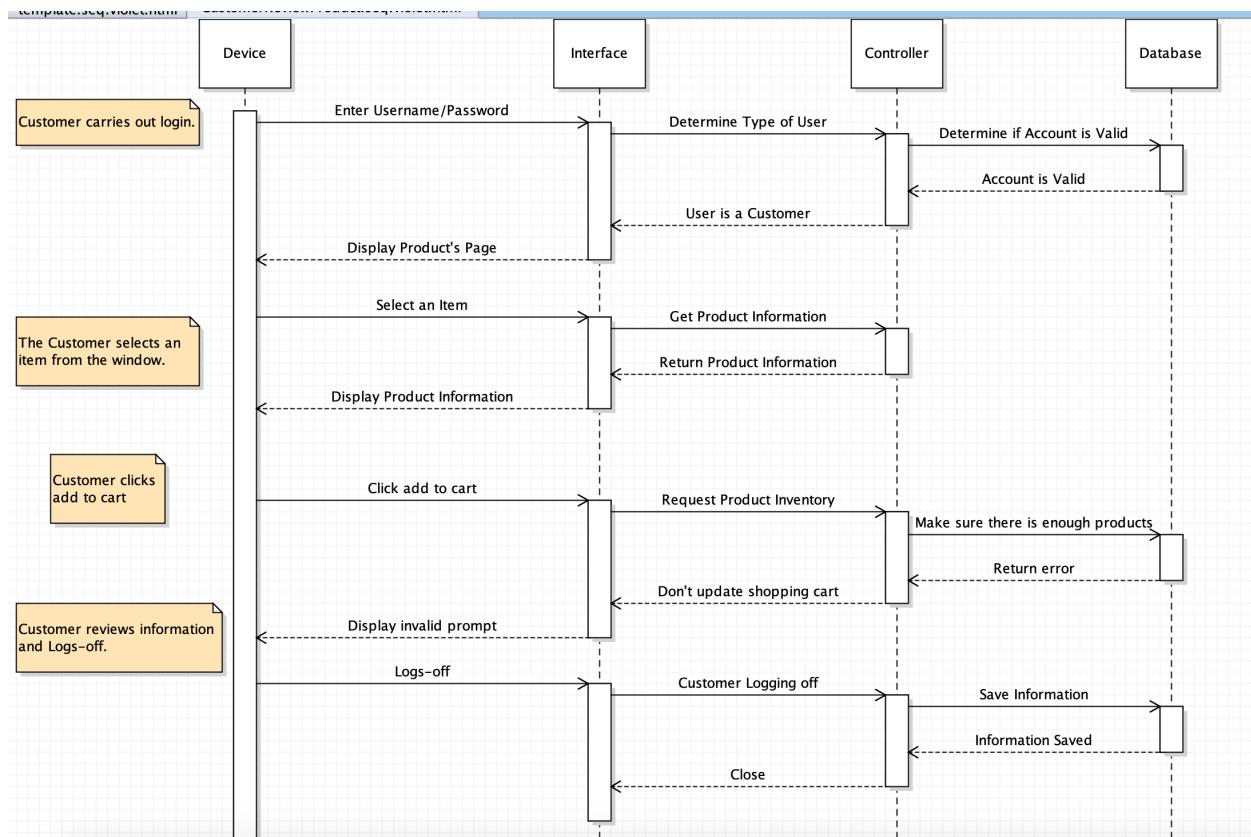
Use Case: Customer Adds Item:



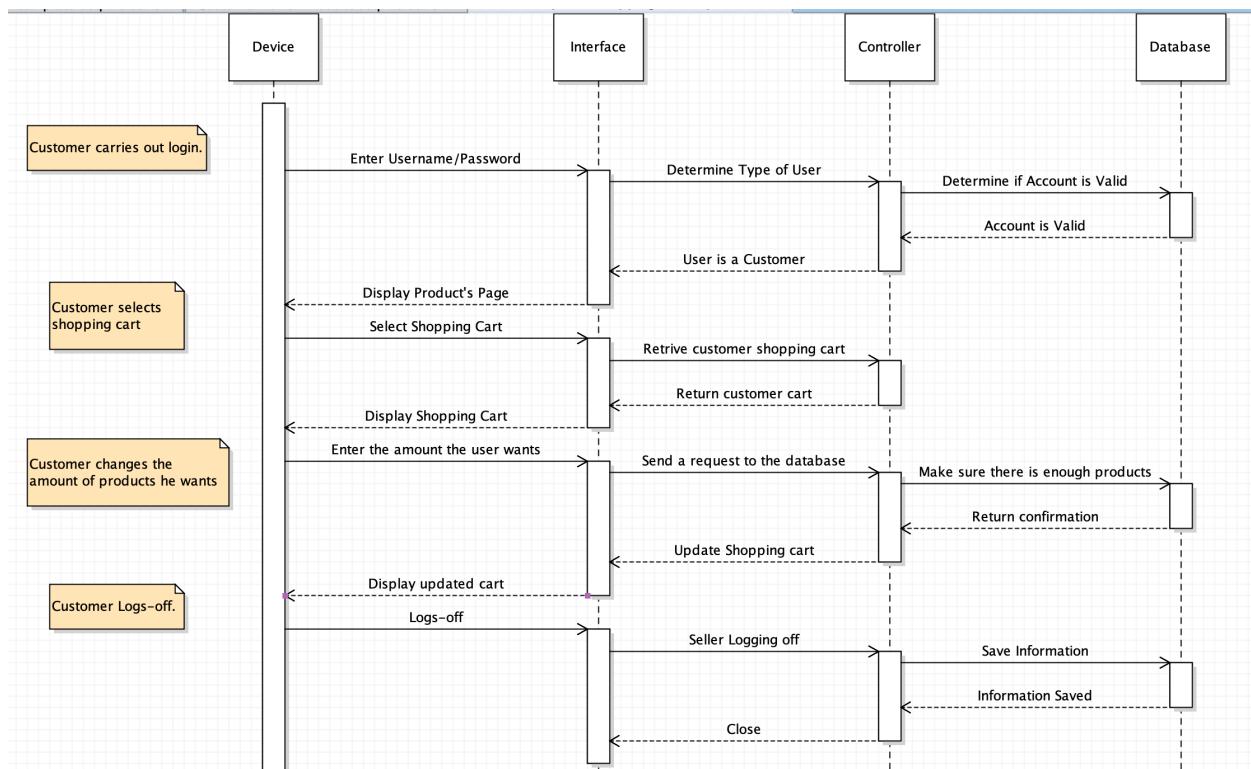
Variation 1:



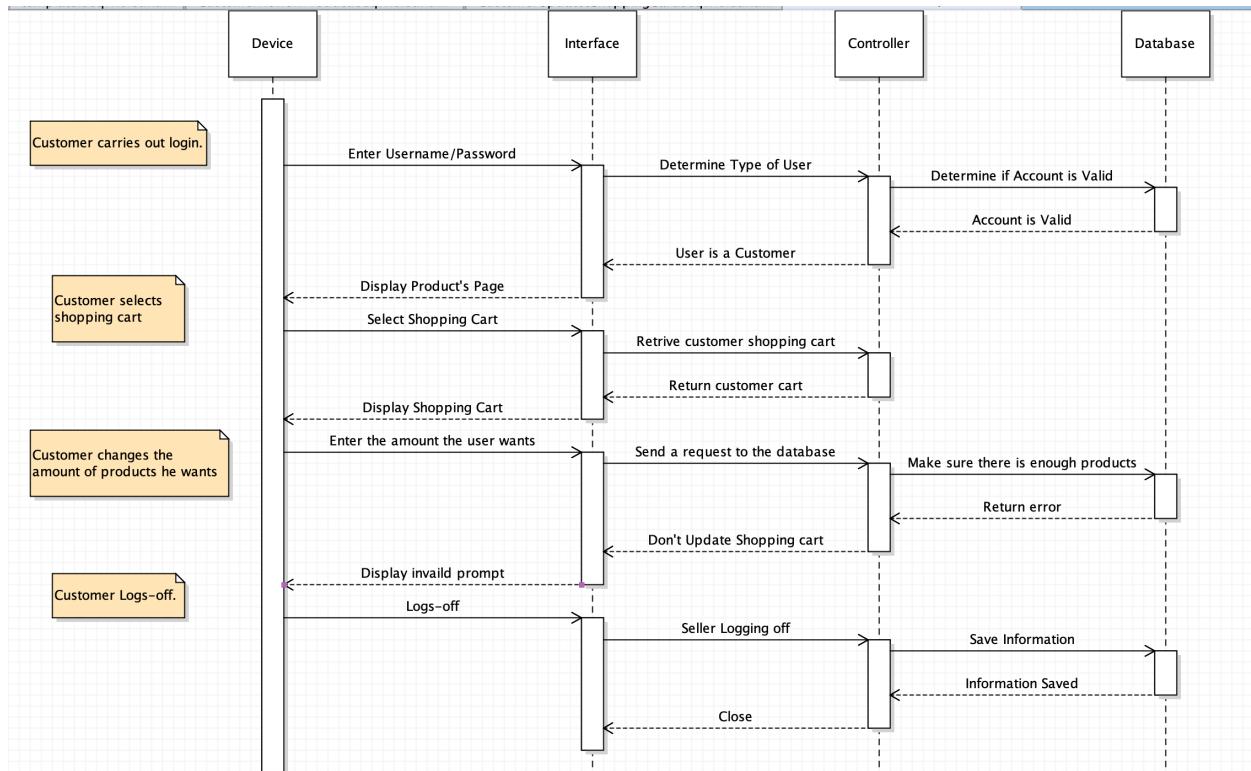
Variation 2:



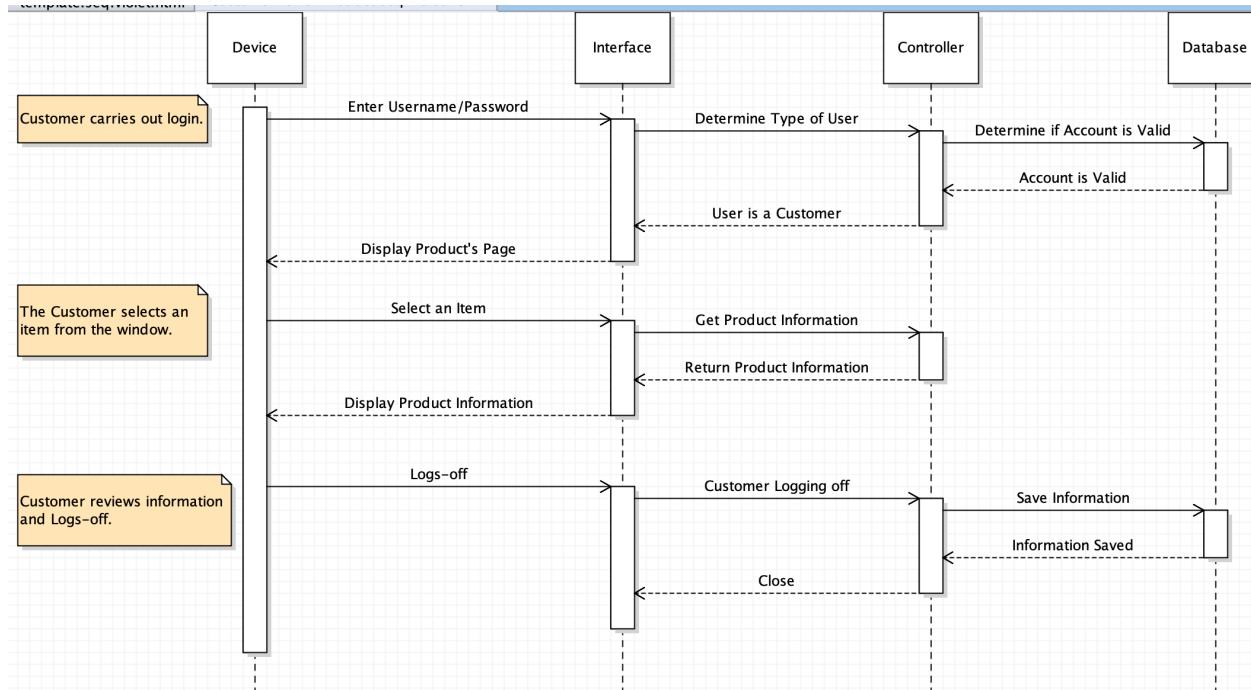
Use Case: Customer Updates Shopping Cart:



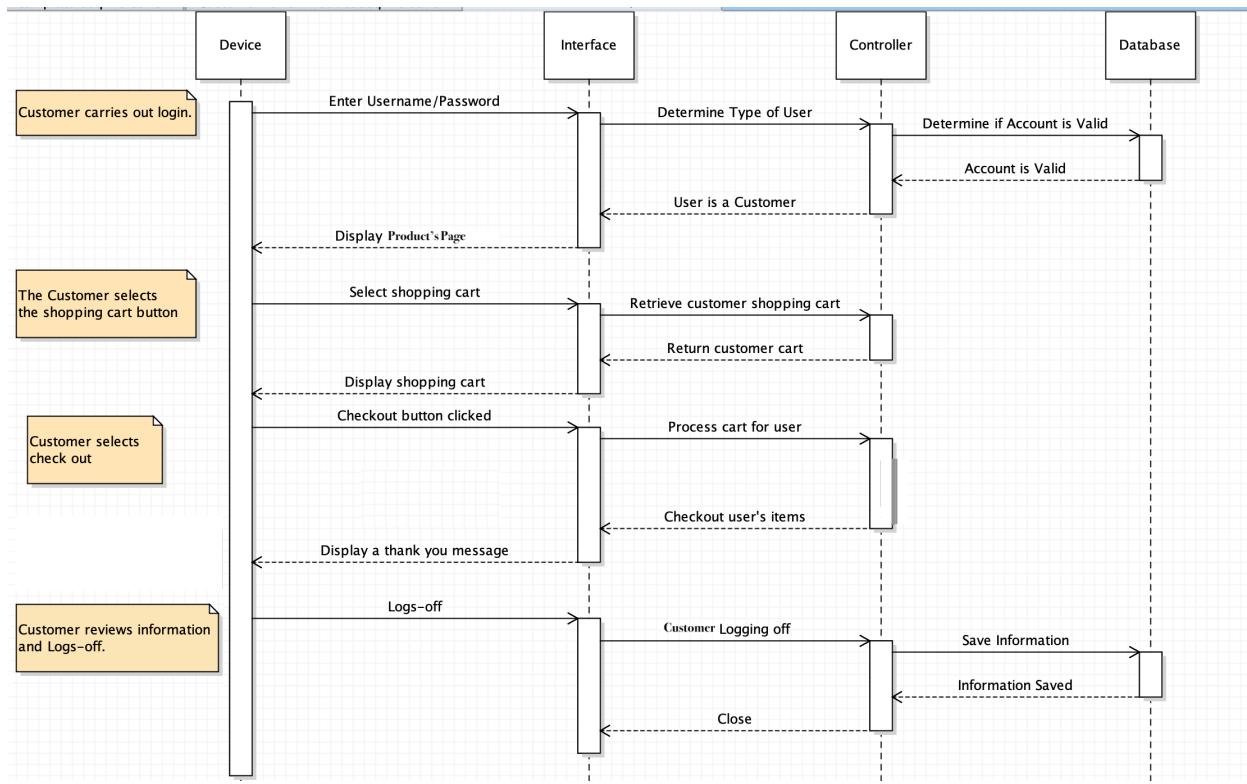
Variation 1:



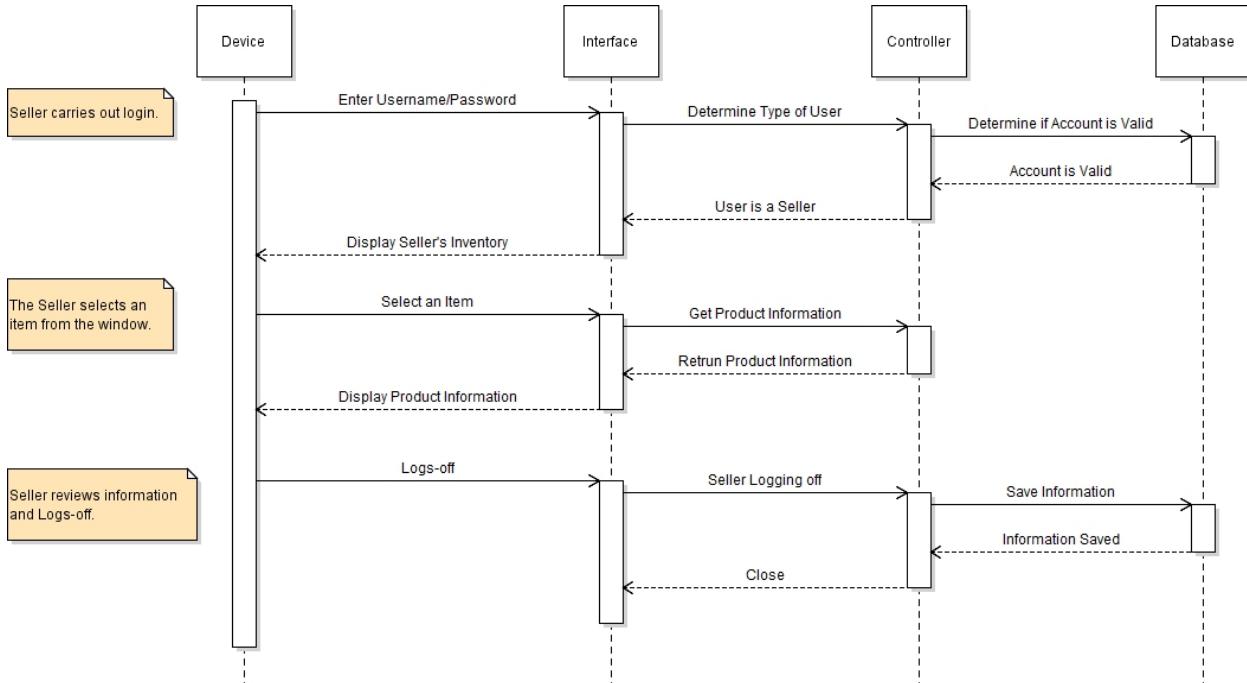
Use Case: Customer Reviews Product(s) Details:



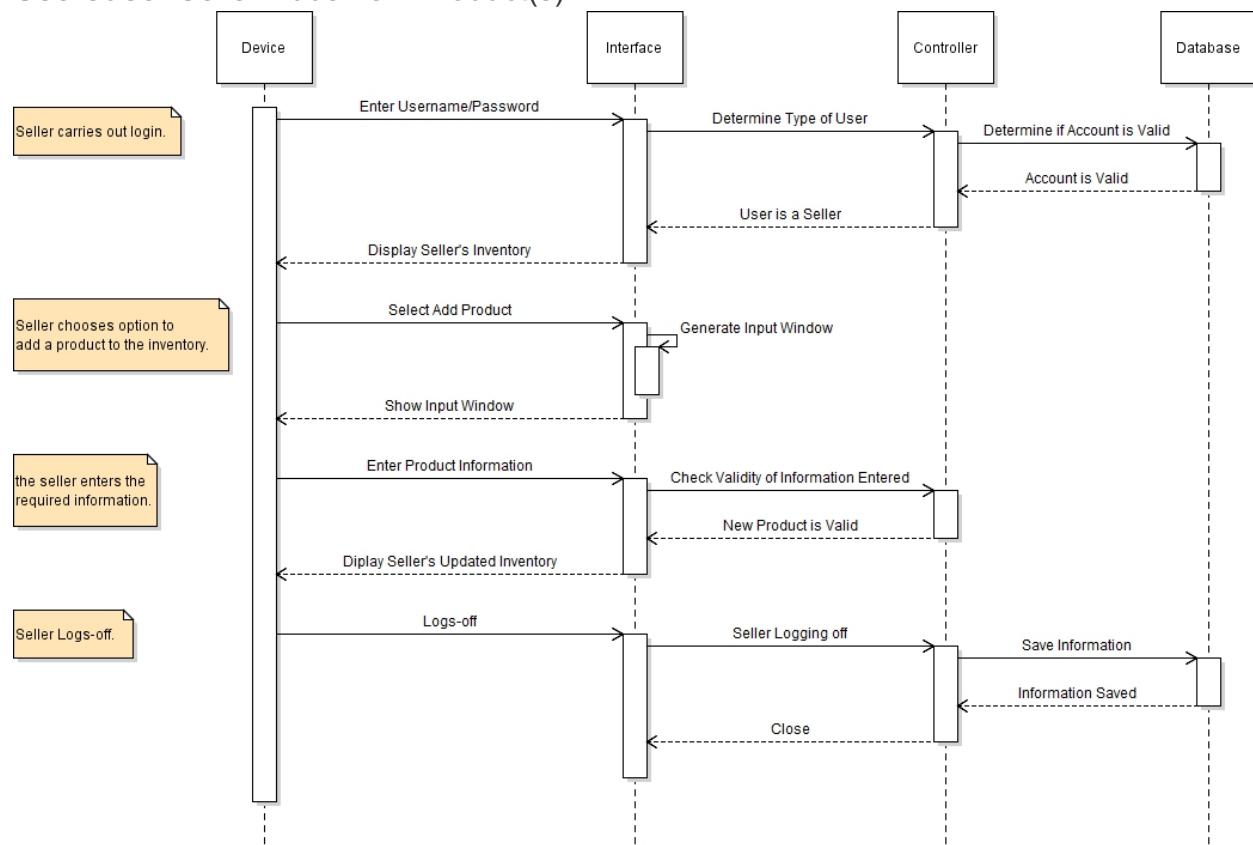
Use Case: Customer Checks Out:



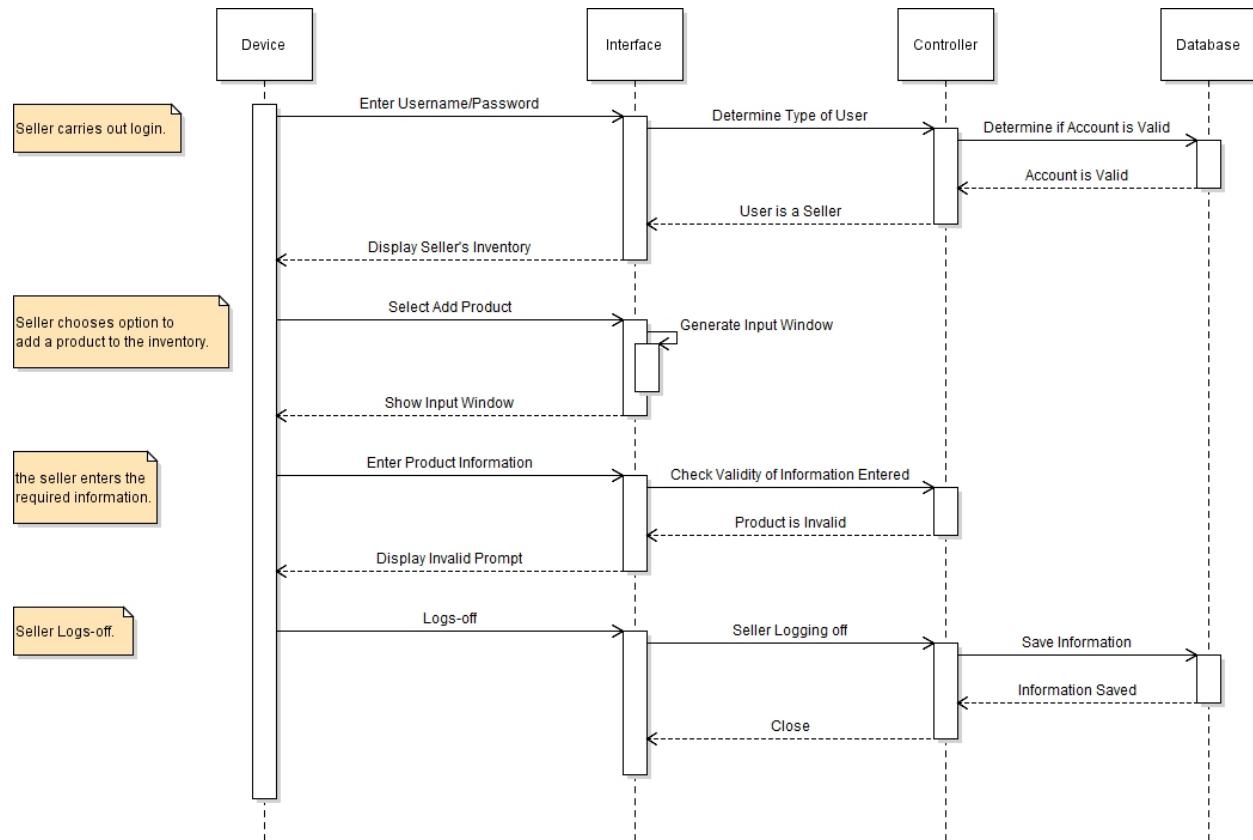
Use Case: Seller Reviews Product(s) Details:



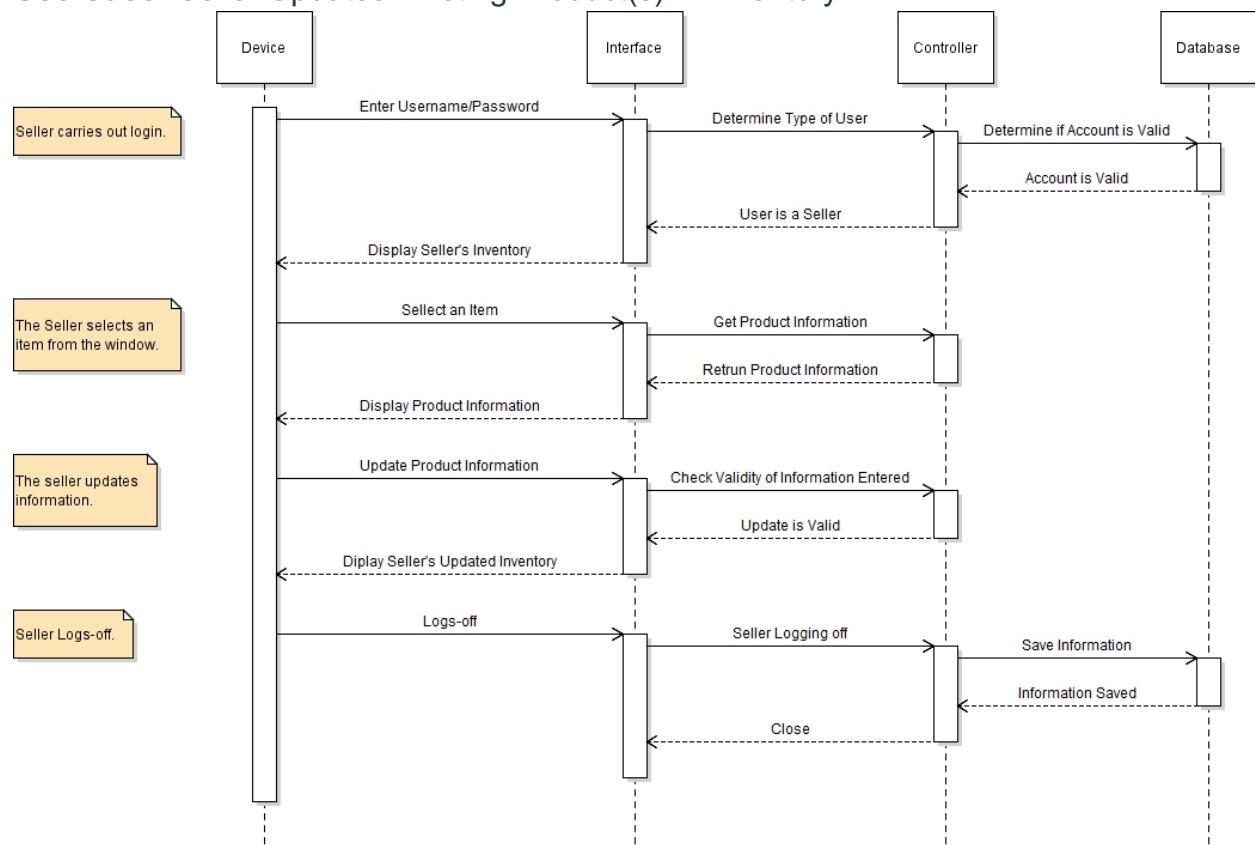
Use Case: Seller Adds new Product(s):



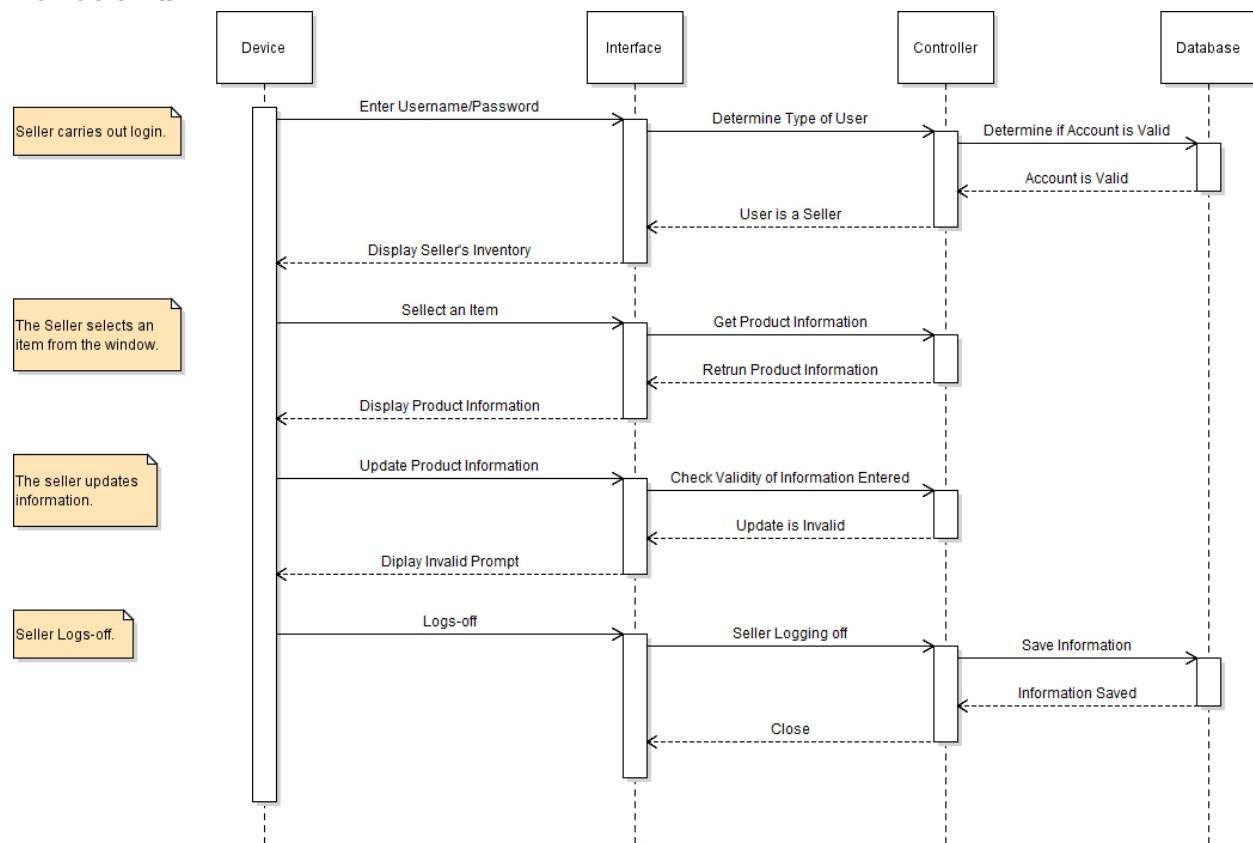
Variation #1 and 2:



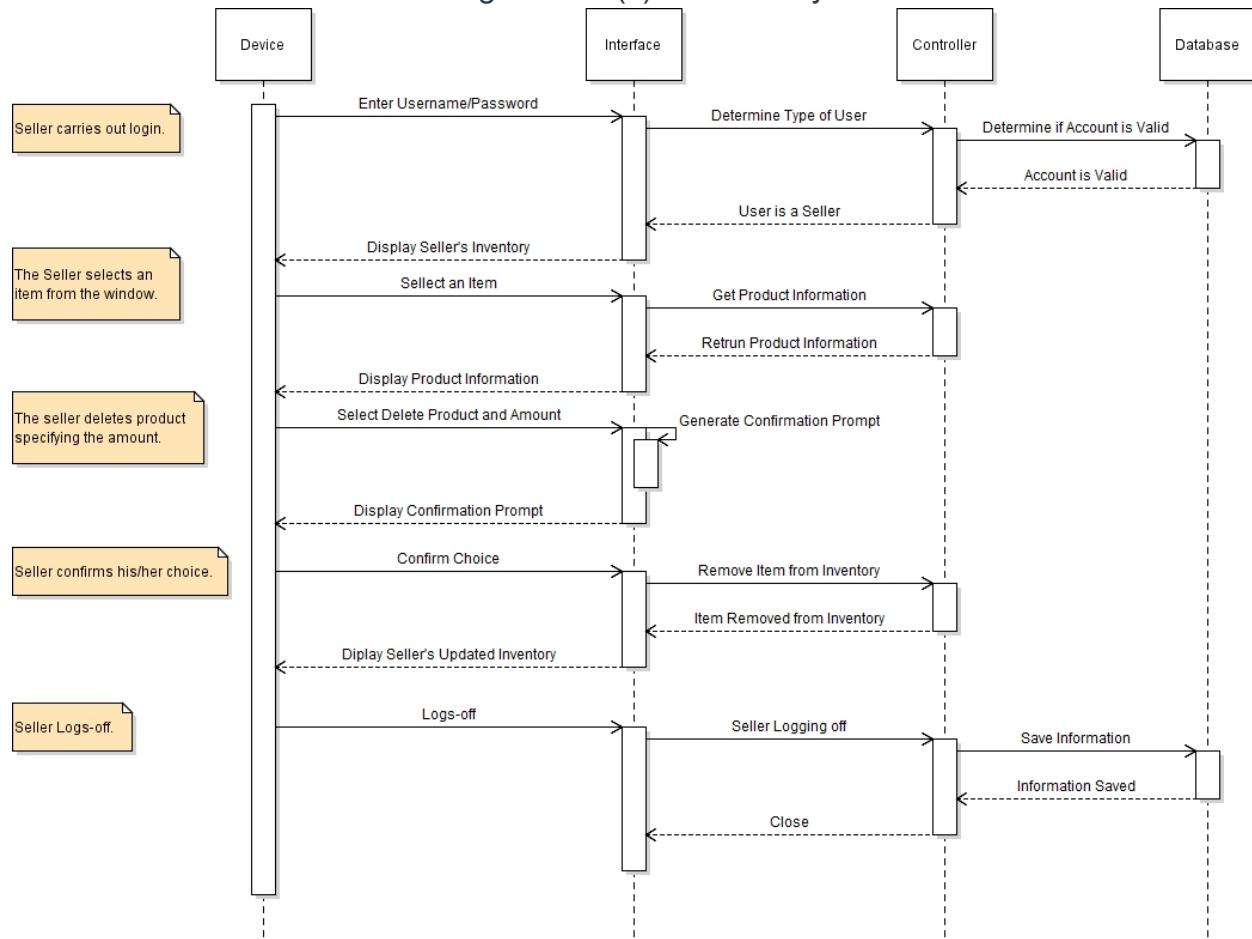
Use Case: Seller Updates Existing Product(s) in Inventory:



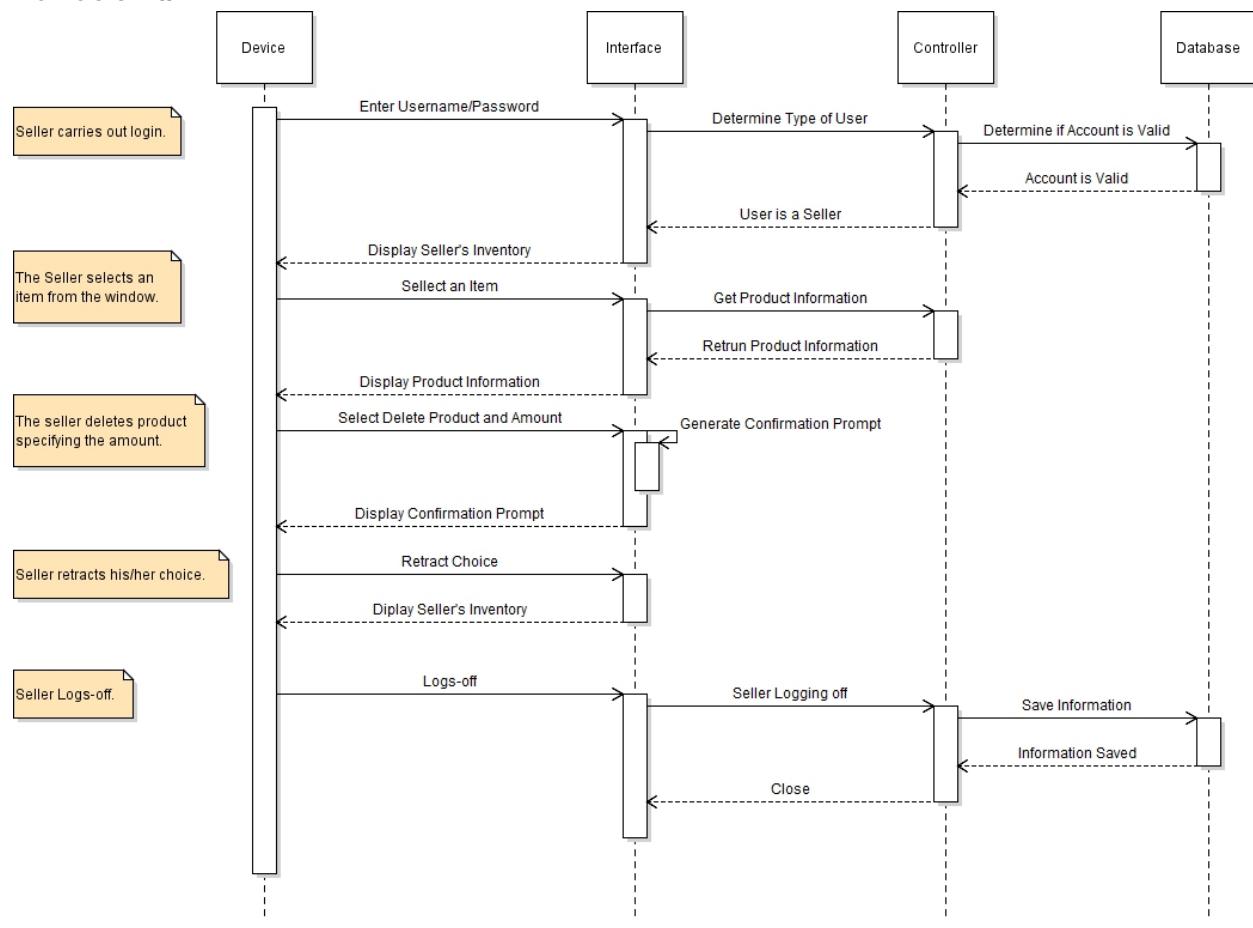
Variation #1:



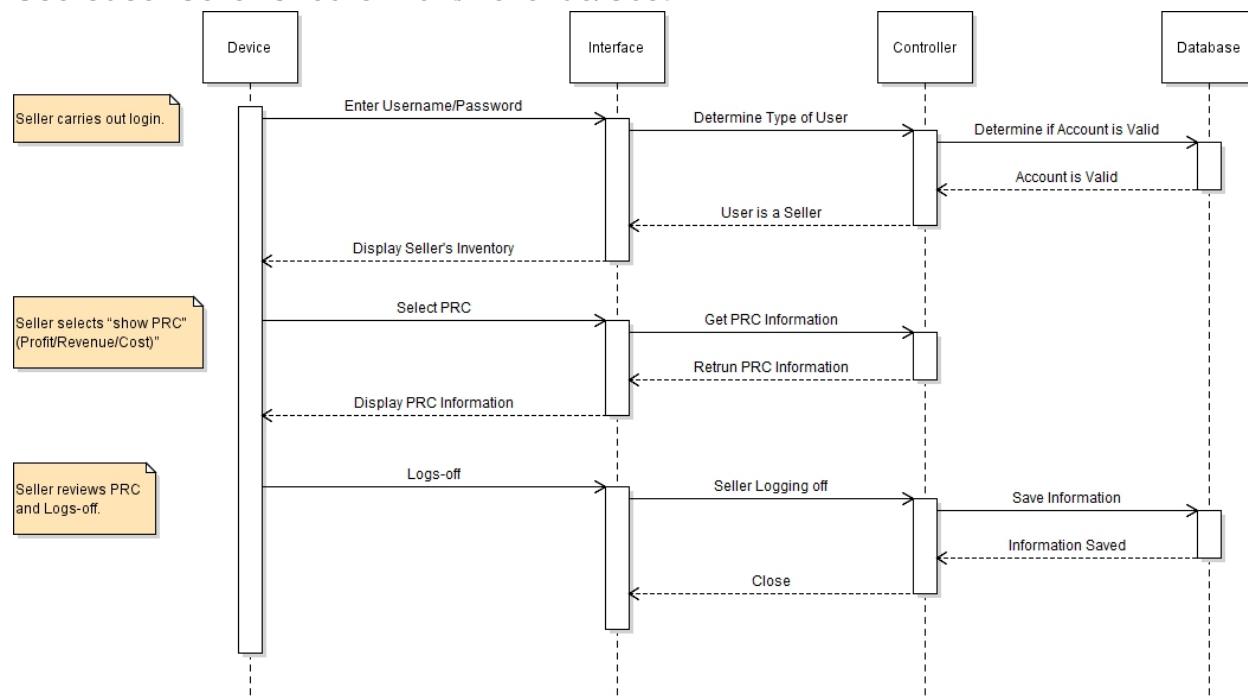
Use Case: Seller Deletes Existing Product(s) in Inventory:



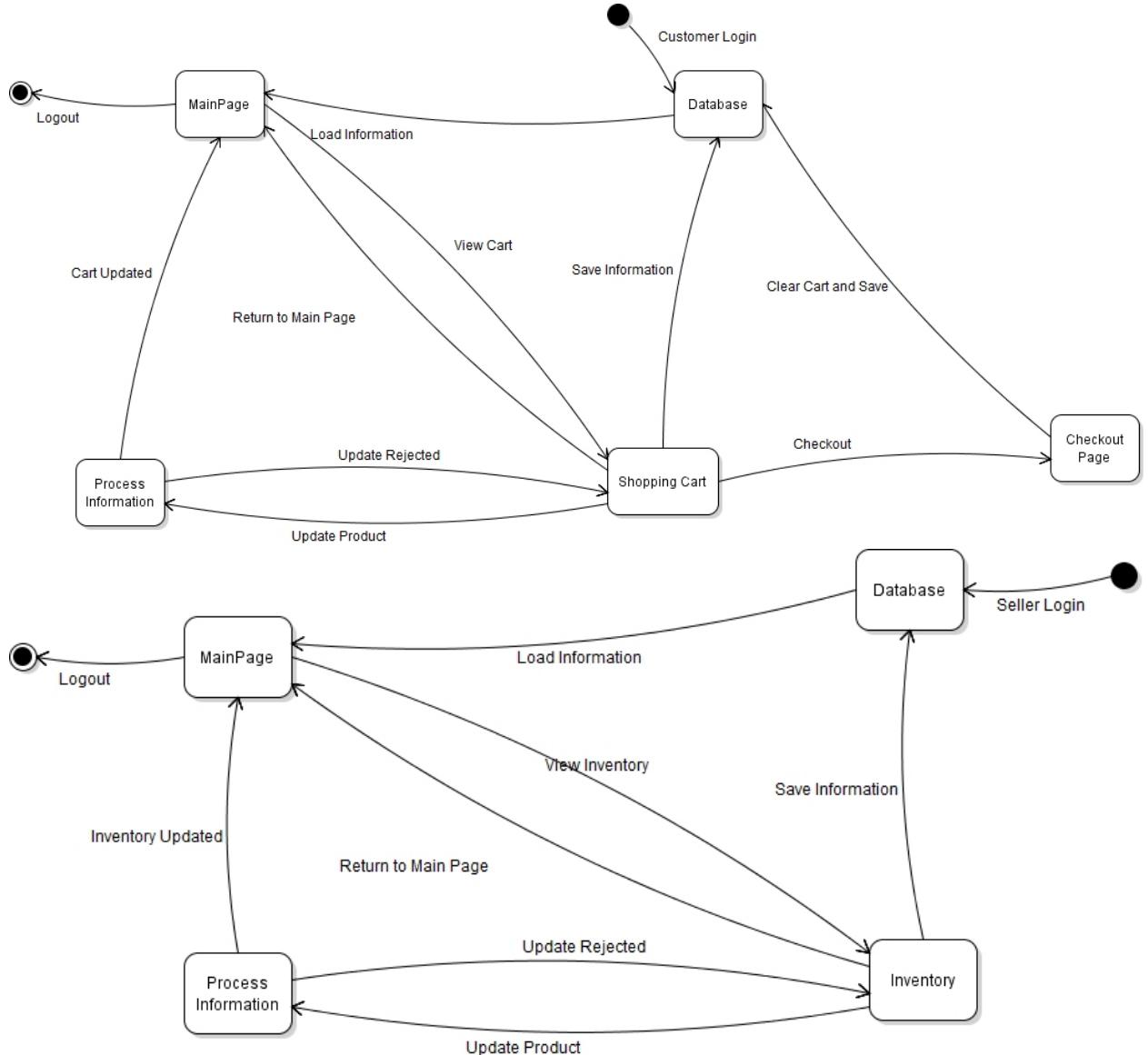
Variation #1:



Use Case: Seller Checks Profit/Revenue/Cost:



- State Diagram(s):



Glossary

Term	Definition
Customer	A user of the system that can purchase items on the application.
Seller	A user of the system with the capability to sell products on the application.

Shopping Cart	Used to hold all products that a customer wishes to purchase.
Inventory	The product(s) owned and being sold by the Seller.
PRC (Profit,Revenue,Cost)	Data in which a seller can determine his/her profits, revenues, and cost. Profit = Revenue - Cost, Revenue = Sum of sell price for all sold items, Cost = Sum of invoice price for all items bought in inventory.
Product	A representation of what a customer can buy and what a seller can sell.
Prompt	A message generated by the system to inform the seller/customer.