	REQ 1	REQ 2	REQ 3	REQ 4	REQ 5	REQ 6	REQ 7	REQ 8	REQ 9	REQ 10	REQ 11	REQ 12	REQ 13	REQ 14	REQ 15	REQ 16	REQ 17
UC - 1 Make Purchase	1		1			1	1			1							
UC - 2 Add Item to Cart	1		1	1	1		1			1				1		1	
UC - 3 Add Item to Wishlist	1		1	1			1			1				1	1	1	1
UC - 4 Restock Item	1		1	1			1		1								
UC - 5 Return Item	1		1			1	1				1	1	1				
UC - 6 Make Account								1									
UC - 7 Ship/Send Item	1		1				1			1	1						
UC - 8 Add New Product	1	1	1							1							
UC - 9 Delete Product	1	1	1														
UC - 10 View Product Avalibility	1		1	1					1	1	1			1		1	1
UC - 11 Generate Report						1	1		1							1	
UC - 12 Remove Item from Cart	1		1		1		1										

Use Case Name: Add Item to Cart

Scope: Store

Level: user goal

Primary Actor: customer

Stakeholders and Interests:

• Customer: wants to be able to purchase multiple different items

• Company: wants to be able to keep track of the items the customer purchases so that they can get their items in a timely manner

Preconditions: Customer wants to add an item to their cart

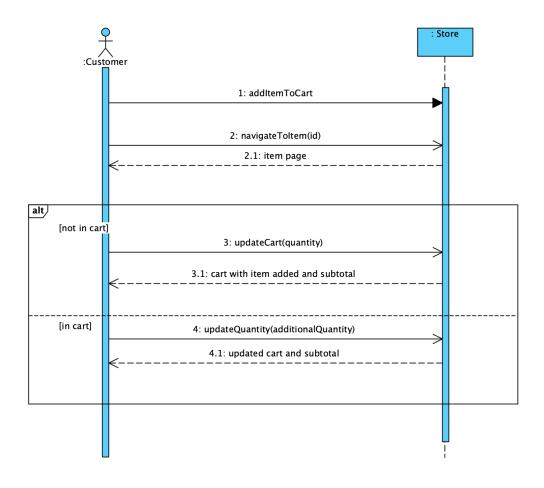
Success Guarantee (or Postconditions):

The item is added to the cart, and the subtotal is updated

Main Success Scenario (or Basic Flow):

- 1. Customer navigates to the item
- 2. Customer clicks add to cart button
- 3. Customer enters the quantity they wish to purchase
- 4. Items are added to cart
- 5. Subtotal is updated
- 6. The customer is informed that the items have been successfully added to the cart

- 2a. Item is already in cart:
 - 1. Customer selects how many they wish to add to the cart
 - 2. The customer's selection is added to their previous selection



addToCart searchForItem(id) updateCart(quantity) updateQuantity(additionalQuantity)

Operation: addToCart **Cross References:** Add Item to Cart

Preconditions: There is an instance of a cart created **Postconditions:** The cart has an item added to it

Operation: searchForItem(id) **Cross References:** Add Item to Cart

Preconditions: The customer knows what item they are searching for

Postconditions: The customer has navigated to the item page

Operation: updateCart(quantity)
Cross References: Add Item to Cart

Preconditions: The customer has navigated to the item page, and the item isn't in the cart

Postconditions: The item and its desired quantity is added to the cart

Operation: updateQuantity(additionalQuantity)

Cross References: Add Item to Cart

Preconditions: The customer has navigated to the item page, and the item is already in the

cart

Postconditions: The quantity of the item in the cart is increased by additional Quantity

Use Case Name: Remove Item from Cart

Scope: Store

Level: user goal

Primary Actor: customer

Stakeholders and Interests:

- Customer: wants to be able to keep track of the items to be purchased, and make adjustments to them (remove, alter number of) if needed.
- Company: wants to be able to properly track an order, including when items are removed, so that purchases are accurate.

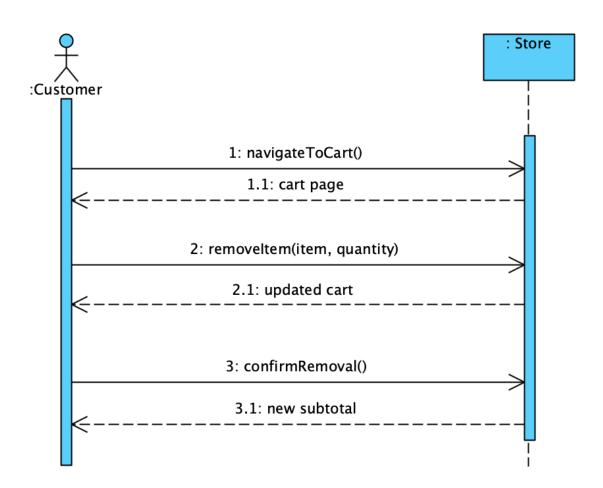
Preconditions: Customer wants to remove an item from their cart

Success Guarantee (or Postconditions): The item the customer wanted removed from the cart will be removed and the subtotal calculated.

Main Success Scenario (or Basic Flow):

- 1. Customer navigates to their current shopping cart instance
- 2. The customer clicks on the item to be removed from the cart
- 3. The customer clicks on the UPDATE ORDER button
- 4. The customer clicks remove item
- 5. The machine shows a verification that the user wants to remove the item
- 6. The customer selects yes
- 7. The subtotal is updated

- 4a. There are multiple of the same item in the cart
 - 1. Customer selects how many of the item they would like to remove
 - 2. Customer confirms the amount to remove
- 6a. The customer doesn't want to remove the item from cart
 - 1. The customer changes their mind and selects no
- 7a. There is no resulting change in the order
 - 1. The subtotal is not changed and thus not updated



a Store

navigateToCart()
removeItem(item, quantity)
confirmRemoval()

Operation: navigateToCart()

Cross References: Remove Item from Cart

Preconditions: The cart exists

Postconditions: The cart is displayed to the user

Operation: removeItem(item, quantity) **Cross References:** Remove Item from Cart

Preconditions: there are at least "quantity" instances of "item" in the carty

Postconditions: the item is

Operation: confirmRemoval() **Cross References:** Remove Item from Cart

Preconditions: The customer has selected to remove an item from their cart

Postconditions: If confirmed, the removal is finalized

Else, the removal is cancelled

Use Case Name: Make Account

Scope: Store

Level: user-goal

Primary Actor: Customer

Stakeholders and Interests:

- Customer: wants to store their information so that it's saved for next time

- Company: has to keep track of the customer's login information

Preconditions: Customer is asked if they want to create an account

Success Guarantee (or Postconditions): The customer's login information is saved and their cart is tied to their account

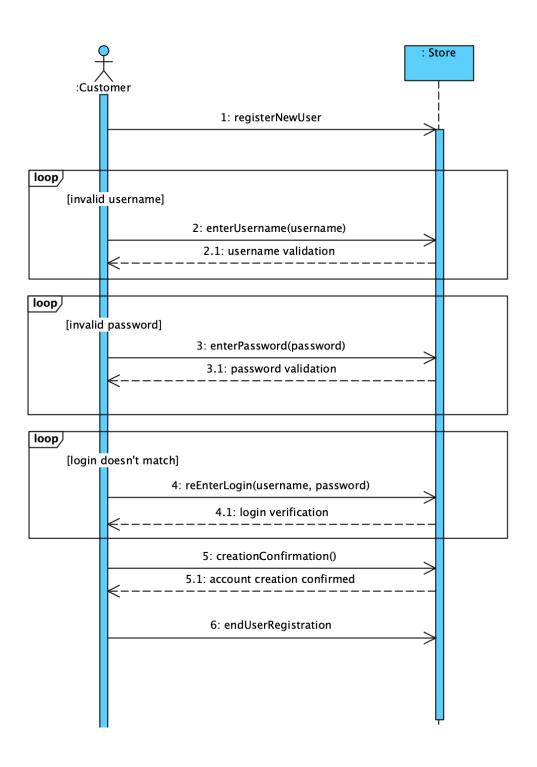
Main Success Scenario (or Basic Flow):

- 1. Customer selects they want to create an account
- 2. The customer is prompted for a username
- 3. The customer is prompted for a password

Repeat steps 2 and 3 until the login is validated

- 4. The user is asked to re-enter their username and password for validation
- 5. The customer is asked to confirm the account creation

- 2a. The username is invalid
 - 1. The customer is informed why the username is invalid (either it is taken or does not meet requirements)
 - 2. The customer is asked to enter another username
- 3a. The password is invalid
 - 1. The customer is informed why the password is invalid (i.e. the requirements it violates)
 - 2. The customer is asked to enter another password
- 4a. The customer's username does not match
 - 1. The customer is informed that their usernames don't match
 - 2. The customer is prompted to try again
- 4b. The customer's password doesn't match
 - 1. The customer is informed that their passwords don't match
 - 2. The customer is prompted to try again



registerNewUser enterUsername(username) enterPassword(password)

reEnterLogin(username, password)

creationConfirmation() endUserRegistration

Operation: registerNewUser
Cross References: Make Account

Preconditions: The customer has elected to create an account.

Postconditions: A new account is registered.

Operation: enterUsername(username)

Cross References: Make Account

Preconditions: The customer is prompted to enter a username.

Postconditions: The username is validated.

Operation: enterPassword(password)

Cross References: Make Account

Preconditions: The customer is prompted to enter a password.

Postconditions: The password is validated.

Operation: reEnterLogin(username, password)

Cross References: Make Account

Preconditions: The customer is prompted to re-enter their valid username and password

Postconditions: The two logins are compared, then validated if they match

Operation: creationConfirmation()

Cross References: Make Account

Preconditions: The two logins matched

Postconditions: If the user confirms, the account is created

Else, account creation is canceled

Operation: endUserRegistration

Cross References: Make Account

Preconditions: The registration was sucessful

Postconditions: The process of creating an account ends

Use Case Name: View Product Availability

Scope: Store

Level: Subfunction

Primary Actor: Company

Stakeholders and Interests:

• Customer: Wants to have the option to pick from a variety of items and have what is needed available.

• Company: Wants to be able to properly track the inventory of all of the products available.

Preconditions: The website is up and running and the product being looked for is valid and have an unique id and product page

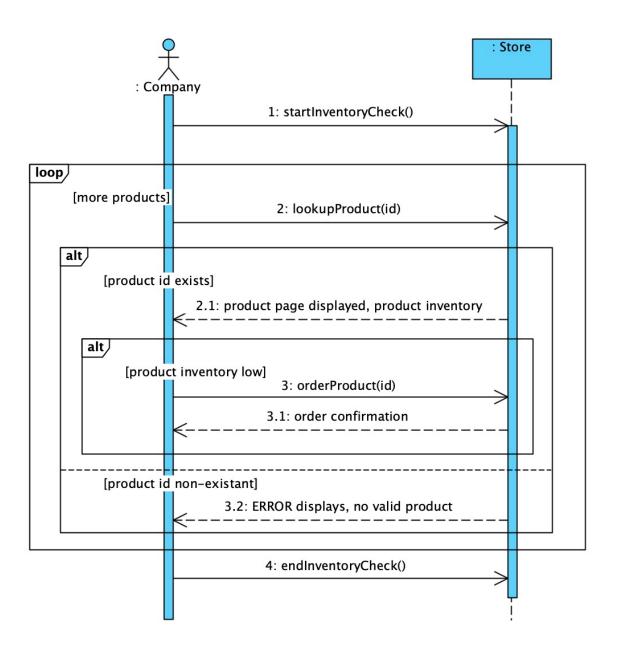
Success Guarantee (or Postconditions): The availability of a product is checked and updated if needed

Main Success Scenario (or Basic Flow):

- 1. A product inventory is needed to be checked
- 2. The product is looked up based on its unique id
- 3. The inventory available will be displayed on the product page
- 4. The company will request more inventory to be shipped to the containment center if product is getting low.

Steps 2-4 can be repeated if multiple products are having their inventory checked

- 2a. The unique id does not exist
- 1. The product being looked up doesn't exist and results an ITEM NOT FOUND message



Product View

startInventoryCheck() lookupProduct(id) orderProduct(id) endInventoryCheck()

Operation: startInventoryCheck()

Cross References: View Product availability

Preconditions: Website is up and running and has products with different product ids

Postconditions: The inventory checking has been started

Operation: lookupProduct(id)

Cross References: View Product availability

Preconditions: Product exists in the database and is coupled with a unique id

Postconditions: Product page is displayed from database

Operation: orderProduct(id)

Cross References: View Product availability

Preconditions: Product exists in the database and is coupled with a unique id

Postconditions: Product is ordered to wearhouse

Operation: endInventoryCheck()

Cross References: View Product availability

Preconditions: All products need to be inventory checked have been

Postconditions: The inventory checking has been finished

Use Case Name: Delete a Product

Scope: Store

Level: Subfunction

Primary Actor: Company

Stakeholders and Interests:

• Customer: Wants to have the option to pick from a variety of items and have what is needed available.

• Company: Wants to remove product from the store to generate more revenue and make more space for more popular items

Preconditions: There is a product the company wants to remove

Success Guarantee (or Postconditions): The product is removed from the site

Main Success Scenario (or Basic Flow):

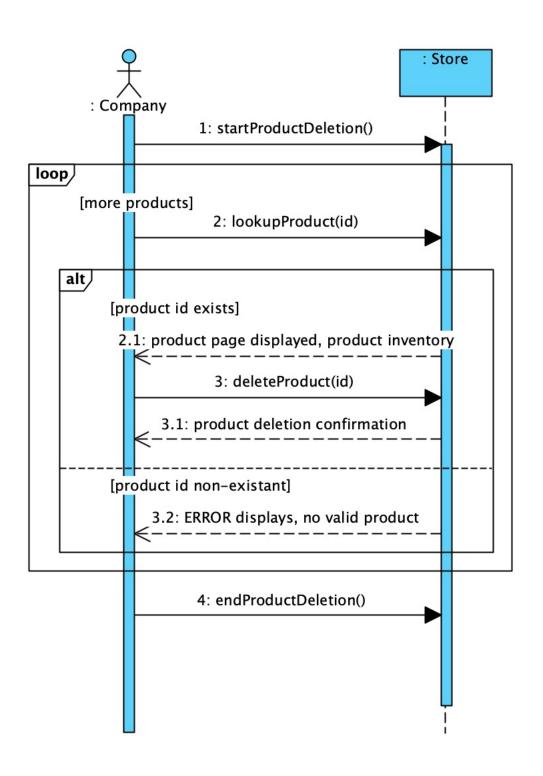
- 1. A product is deemed needed to be removed from the store
- 2. The product is deleted from the sites database based on its unique id
- 3. The products id is freed to be used by another future product
- 4. The products page is removed as result of a freed unique id

Steps 2-4 can be repeated if multiple products are being deleted

Extensions (or Alternative Flows):

*a. At any point the products removal process can stop, resulting in leaving the product on the store

- 2a. The unique id does not exist
- 1. The product being looked up doesn't exist and results an ITEM NOT FOUND message



Product Deletion

startProductDeletion() lookupProduct(id) deleteProduct(id) endProductDeletion()

Operation: startProductDeletion()
Cross References: Product Deletion

Preconditions: Website is up and running and has products with different product ids

Postconditions: The product deletion has been started

Operation: lookupProduct(id)
Cross References: Product Deletion

Preconditions: Product exists in the database and is coupled with a unique id

Postconditions: Product page is displayed from database

Operation: deleteProduct(id)

Cross References: Product Deletion

Preconditions: Product exists in the database and is coupled with a unique id

Postconditions: Product is deleted from database

Operation: endProductDeletion()
Cross References: Product Deletion

Preconditions: All products needed to be deleted have been **Postconditions:** The inventory deletion has been finished

Use Case Name: Stock Item

Scope: Store

Level: subfunction

Primary Actor: Company

Stakeholders and Interests:

• Company: wants to be able to add their item to the shop so it can be sold

• Customer: wants to be able to purchase the item once it is stocked

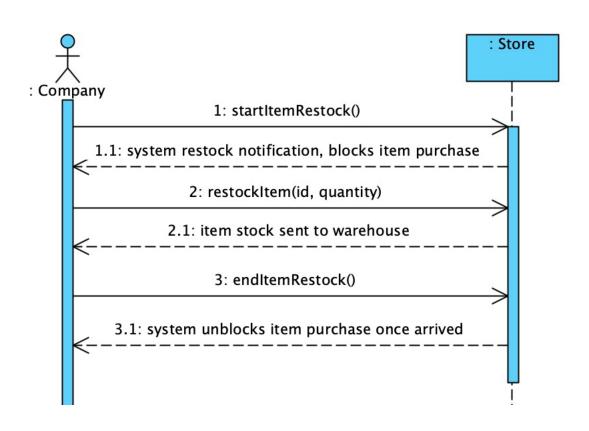
Preconditions: The item is out of stock

Success Guarantee (or Postconditions): The item is stocked to the appropriate level

Main Success Scenario (or Basic Flow):

- 1. The system notifies the company that the item is out of stock
- 2. The system marks the item as unavailable to purchase
- 3. The company gets more of the item
- 4. The company sends the ordered items to the store's warehouse
- 5. Company updates the amount available in the system
- 6. System refreshes the item's stock
- 7. The item is made available for sale again

- 3a. Company decides not to add more of the item
 - 1. The system confirms the choice, and resends the message in a week



Restock Store

startRestockItem() itemRestock(id, quantity) endRestockItem()

Operation: startRestockItem()
Cross References: Restock Item

Preconditions: Website is up and running and has products with different product ids

Postconditions: Restock has been started

Operation: itemRestock(id, quantity)
Cross References: Restock Item

Preconditions: Product exists in the database and is coupled with a unique id

Postconditions: Product is ordered to wearhouse in the specific quantity mentioned

Operation: endRestockItem()
Cross References: Restock Item

Preconditions: All products needed to be restocked have been

Postconditions: Restock has been finished

Use Case Name: Add Item to Wishlist

Scope: Customer

Level: user-goal

Primary Actor: Customer

Stakeholders and Interests:

- Customer: Wants to add the product to their wishlist.

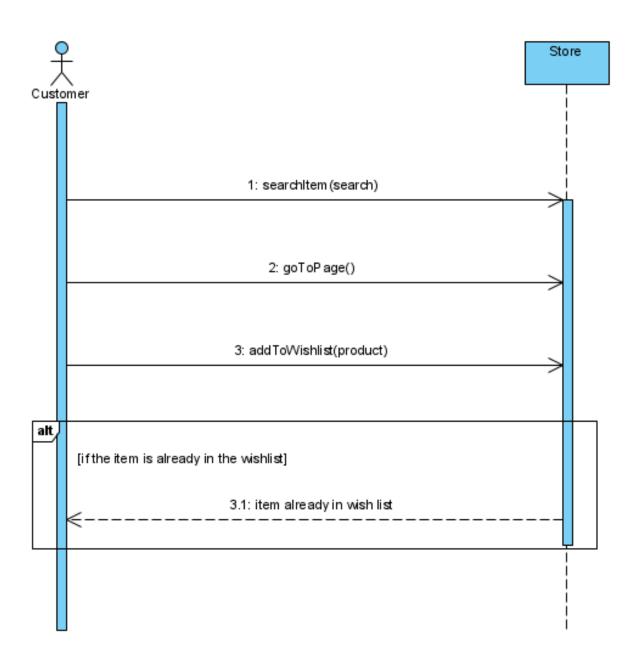
Preconditions: The product must be in the store.

Success Guarantee (or Postconditions): The product will be added to the user's wishlist.

Main Success Scenario (or Basic Flow):

- 1. User searches for the product.
- 2. User clicks on the product page.
- 3. User clicks the "add to wishlist" button,
- 4. Product is added to the user's wishlist.

- 4a. The product is already in the user's wishlist.
 - 1. The site tells the user that the item is already in their wishlist.



searchitem(search) goToPage() addToWishList(product)

Operation: searchItem

Cross References: Add Item To Wishlist

Preconditions: The customer wants to search for an item **Postconditions:** The customer searched for their item

Operation: goToPage

Cross References: Add Item To WishList **Preconditions:** The item page exists

Postconditions: The customer has the item page on their screen

Operation: addToWishList

Cross References: Add Item To Wishlist

Preconditions: The customer has an account

Postconditions: The item is in the customer's wishlist

Use Case Name: Ship/Send Item

Scope: Store

Level: Subfunction

Primary Actor: Customer

Stakeholders and Interests:

- Company: The company makes profit if the item is successfully delivered and not returned.

- Customer: The customer is the one who ordered the item.

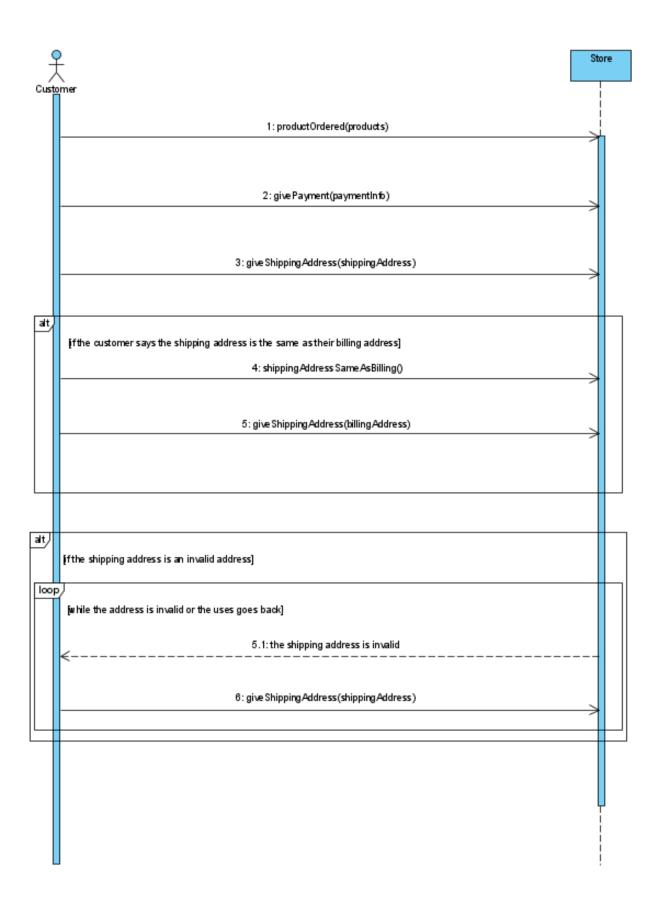
Preconditions: An item is ordered by the customer.

Success Guarantee (or Postconditions): The item is delivered to the customer.

Main Success Scenario (or Basic Flow):

- 1. The customer orders a product.
- 2. The customer inputs their shipping address.
- 3. The item is paid for.
- 4. The item is sent to the shipper with the correct address.

- 2a. The customer selects that their shipping address is the same as their billing address.
 - 1. The store will fill in the shipping address with the billing address.
- 2b. The address is not valid.
 - 1. The site will tell the customer that the address is not valid.
 - 2. The site will not let them proceed till a valid address is input.



givePayment(paymentInfo) giveShippingAddress(shippingAddress) shippingAddressSameAsBilling() giveShippingAddress(billingAddress) productOrdered(products)

Operation: givePayment Cross References: Ship/Send Item

Preconditions: The customer is buy an item

Postconditions: The store has the customer's payment info

Operation: giveShippingAddress

Cross References: Ship/Send Item

Preconditions: The customer bought an item

Postconditions: The store has the customer's shipping address

Operation: shippingAddressSameAsBilling

Cross References: Ship/Send Item

Preconditions: The customer is buying an item

Postconditions: The store has the customer's shipping address

Operation: productOrdered Cross References: Ship/Send Item

Preconditions: The customer is buying an item

Postconditions: The item is purchased

Use Case Name: Add New Product

Scope: Store

Level: Subfunction

Primary Actor: Company

Stakeholders and Interests:

- Company: The one adding the product to the store.

- Customer: The one that will buy the product.

- Shipper: The place that ships an item to the customer.

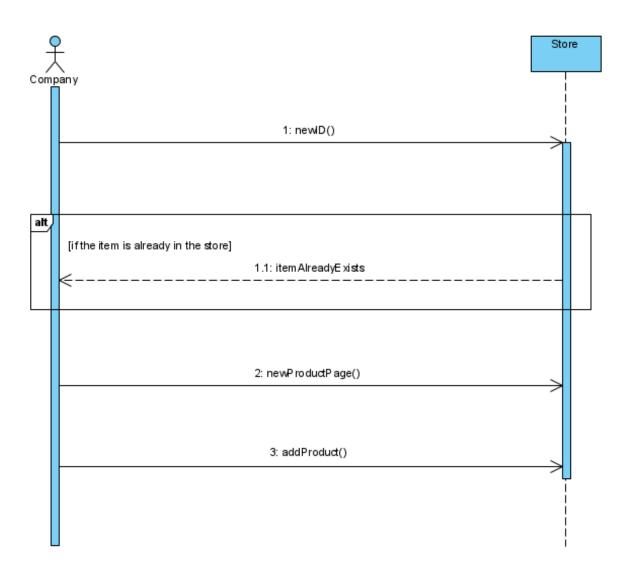
Preconditions: There is a product the company wants to add.

Success Guarantee (or Postconditions): The product is added to the site.

Main Success Scenario (or Basic Flow):

- 1. A product is chosen to be added to the store.
- 2. The product is given a unique id.
- 3. The product is given a product page based off of a template.
- 4. The product is added to the store.

- 1a. The product is already in the store.
 - 1. The system will tell the company that the product already exists.



newProductPage() newID() addProduct()

Operation: newProductPage
Cross References: Add New Product

Preconditions: There is a new product to add **Postconditions:** A new product page is created

Operation: newID

Cross References: Add New Product **Preconditions:** There is a new product

Postconditions: The new product has its own unique ID

Operation: addProduct

Cross References: Add New Product

Preconditions: There is a fully ready new product to add **Postconditions:** The new product is added to the store

Use Case Name: Make Purchase

Scope: Store

Level: user goal

Primary Actor: Customer

Stakeholders and Interests:

• Customer: Wants to buy product

• Company: When an item is purchased, revenue goes back to the owner

Preconditions: The item wanted by the customer must be in stock

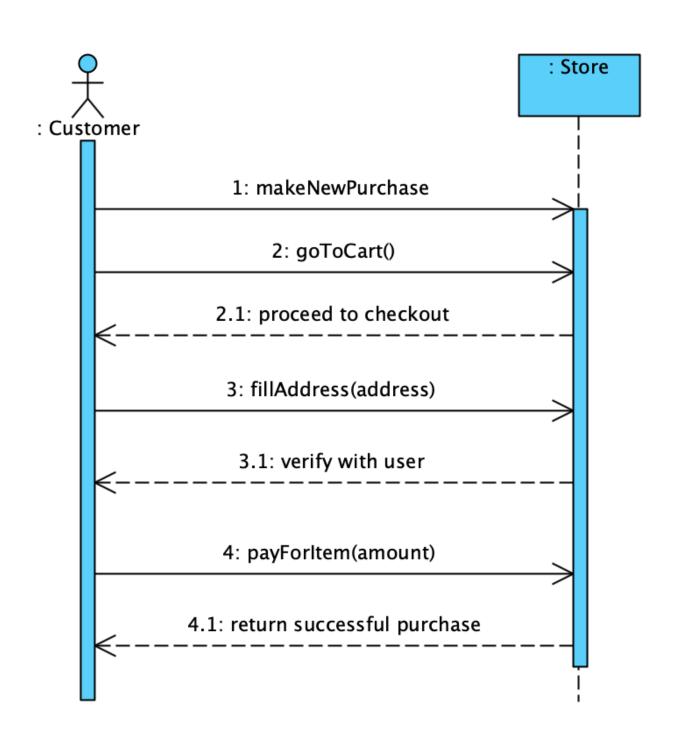
Success Guarantee (or Postconditions):

The customer is successfully able to purchase the product they wanted

Main Success Scenario (or Basic Flow):

- 1. Customer searches for an item from the store
- 2. Customer picks out that item from the store
- 3. Item goes into the Customers' cart
- 4. Customer goes to their cart
- 5. Customer checks out and item is purchased

- 1a. The item isn't sold from the store
 - 1. Customer must request item for the future
 - 2. Customer must find either an off-brand replacement or another store that sells the product
- 2a. The item is out of stock
 - 1. Customer can request to be notified when the item is back in stock



makeNewPurchase() goToCart() fillAddress(address) payForItem(amount)

Operation: makeNewPurchase **Cross References:** Make New Purchase

Preconditions: There is an instance of a purchase created

Postconditions: The item/items are purchased

Operation: goToCart

Cross References: Make New Purchase **Preconditions:** The cart exists

Postconditions: The customer is able to open the cart and see the items inside

Operation: fillAddress(address) **Cross References:** Make New Purchase

Preconditions: The customer has an address in which they live at

Postconditions: The customer has an address on file to ship to in the future and for the

current purchase

Operation: payForItem(amount) **Cross References:** Make New Purchase

Preconditions: Customer has items to pay for

Postconditions: The customer pays for their items and the purchase is complete

Use Case Name: Return Item

Scope: Store

Level: user-goal

Primary Actor: Customer

Stakeholders and Interests:

- Customer: Is able to return their product worry free

- Company: Receives product back from customer

Preconditions: Item has been received by the customer in order to return it

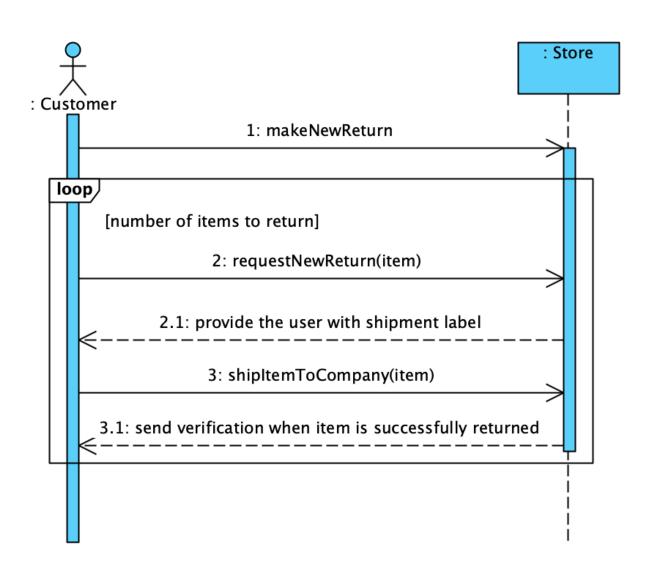
Success Guarantee (or Postconditions): The item is successfully returned to the company

Main Success Scenario (or Basic Flow):

- 1. The customer wishes to return an order
- 2. The customer requests a return
- 3. The customer receives a shipment label to use to return the item
- 4. The customer uses the shipment label to ship the item through a separate shipping company (FedEx, UPS, USPS)
- 5. The company receives the item returned

Steps 1-5 can be repeated due to how many items they wish to return

- 2a. The customer is not qualified to return the item
 - 1. Customer must keep the item, donate the item, or throw it away
- 3a. The shipment label is wrong
 - 1. Customer must request a new one
- 4a. The shipment label is expired
 - 1. The customer must keep the item, donate the item, or throw it away
- 5a. The item never returns to the company
 - 1. The company must cut their losses due to lost package





makeReturn requestNewReturn(item) shipItemToCompany(item)

Operation: makeReturn
Cross References: Make New Return

Preconditions: An item needs to be returned **Postconditions:** The item is successfully returned

Operation: requestNewReturn(item)

Cross References: Make New Return

Preconditions: The customer needs to return an item **Postconditions:** The company approves the return request

Operation: shipItemToCompany(item)

Cross References: Make New Return

Preconditions: The customer has a ready shipment label to return the item

Postconditions: The company receives the returned item

Use Case Name: Generate Report

Scope: Store

Level: user goal

Primary Actor: Company

Stakeholders and Interests:

• Company: Wants to visualize their product sales and customer satisfaction/customer usage rate

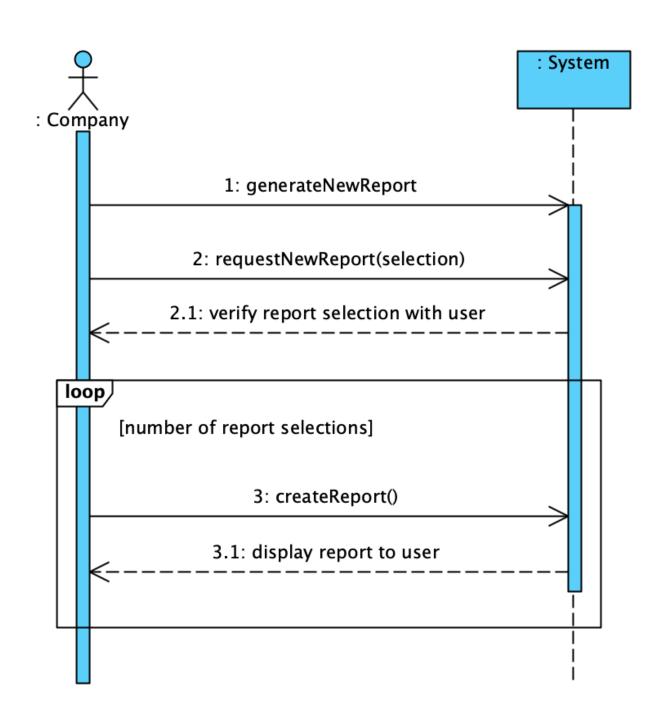
Preconditions: The website is up and running

Success Guarantee (or Postconditions): The website produces a report that displays the companys' weekly sales, new customer accounts, and ratings

Main Success Scenario (or Basic Flow):

- 1. The company requests report
 - a. The company selects certain aspects to receive a report of
- 2. The system confirms the selection
- 3. The report is generated through the system
- 4. The report is sent to the company

- The system does not respond
 - o The system must be restarted manually in order to generate report



System

generateNewReport()
requestNewReport(selection)
createReport()

Operation: generateNewReport() **Cross References:** Generate Report

Preconditions: The report does not exist **Postconditions:** The report is created

Operation: requestNewReport(selection)

Cross References: Generate Report

Preconditions: The report selection hasn't been made

Postconditions: The report selection is chosen and verified by the system with the user

Operation: createReport() **Cross References:** Generate Report

Preconditions: The report has yet to be made

Postconditions: The report is created and sent to the company