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COMP 7700 – Software Architecture/Project 1
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Common Case – Adding a new product into the system.

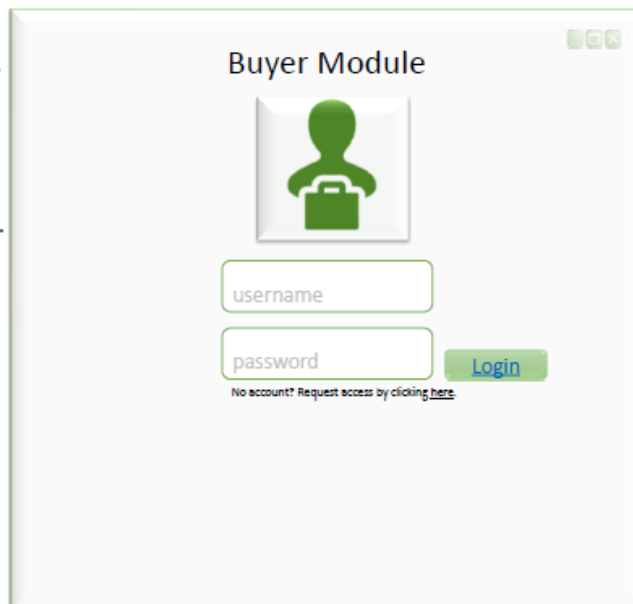| User Story	As a user, I want to add a new product into the system.	
Actor	**Store Buyer/Purchasing Agent**	
Use Case	**Store Buyer/Purchasing Agent** (initiates use case) 1. Launches the application 2. If the buyer has credentials, enters credentials. If the buyer does not have credentials, they should start a process external to this one to gain access to the system for this use case. 3. Navigate to the new product screen. 4. Enter new product information. 5. Submit new product.	**System** 1. Requests credentials 2. Validates credentials. If the user is not in the system (or does not have permission for this function), inform the user. If the credentials pass validation, show Buyer's module. 3. Show new product screen. 4. Validates fields upon input (i.e. field restrictions, formatting rules, duplicate products not allowed) 5. Store new product.

Sketches

Use Case – Step 1:
Launch application/module
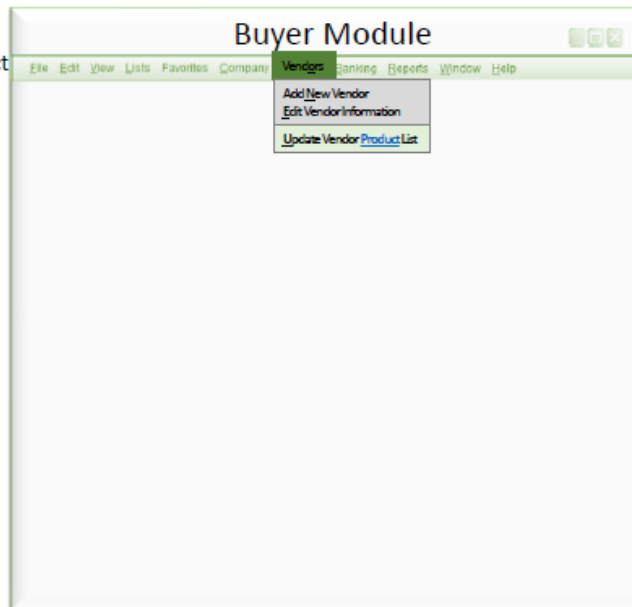
Store Management System
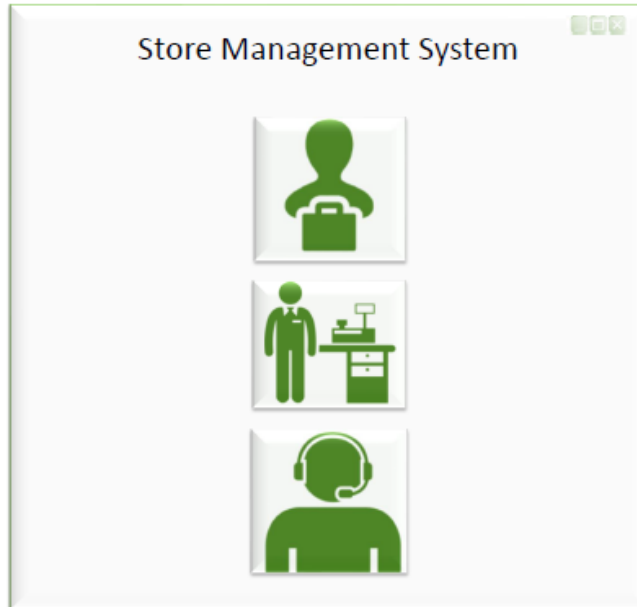
Launcher provides access
to three modules:
- Buyer Module
- Sales Module
- Customer Service
  Module

Use Case – Step 2:
If the buyer has credentials,
enters credentials. If the
buyer does not have
credentials, they should
start a process external to
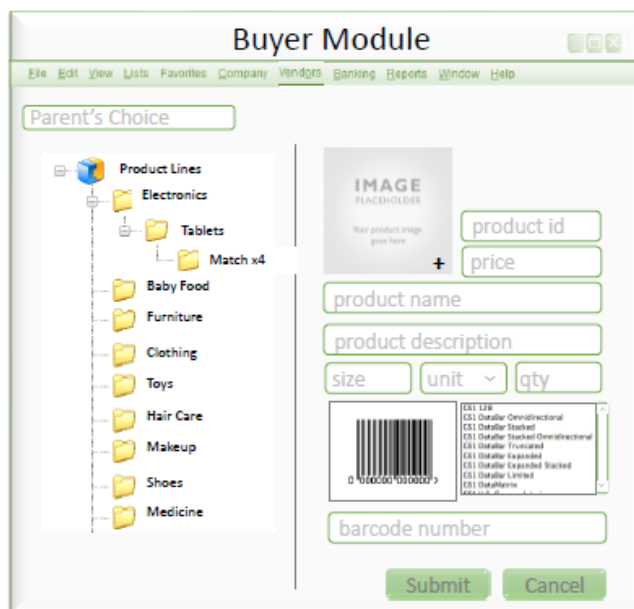this one to gain access to
the system for this use case.

Buyer Module

username

password   Login
No account? Request access by clicking here.

Use Case – Step 3:
Navigate to the new product screen.

Buyer Module

File   Edit   View   Lists   Favorites   Company   **Vendors**   Banking   Reports   Window   Help

Add New Vendor
Edit Vendor Information

Update Vendor Product List

Use Case – Step 4:
Enter new product information.

Use Case - Step 5:
Submit new product.

Buyer Module

File   Edit   View   Lists   Favorites   Company   Vendors   Banking   Reports   Window   Help

Parent's Choice

- Product Lines
  - Electronics
    - Tablets
      - Match x4
  - Baby Food
  - Furniture
  - Clothing
  - Toys
  - Hair Care
  - Makeup
  - Shoes
  - Medicine

IMAGE PLACEHOLDER
Your product image goes here

product id
price

product name

product description

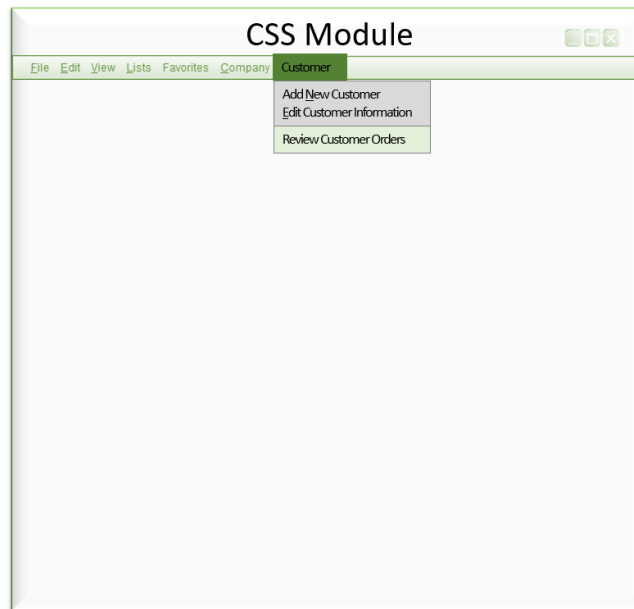size   unit   qty

barcode number

Submit   Cancel

Case with an exception – Adding a new product into the system with an incorrectly formatted price.

User Story	As a user, I want to add a new product into the system.	
Actor	**Store Buyer/Purchasing Agent**	

Use Case	**Store Buyer/Purchasing Agent** (initiates use case)
	
	1. Launches the application
	2. If the buyer has credentials, enters credentials. If the buyer does not have credentials, they should start a process external to this one to gain access to the system for this use case.
	3. Navigate to the new product screen.
	4. Enter new product information.
	5. Correct invalid information.
	6. Submit new product.
		System
		
		1. Requests credentials
		2. Validates credentials. If the user is not in the system (or does not have permission for this function), inform the user. If the credentials pass validation, show Buyer's module.
		3. Show new product screen.
		4. Validates fields upon input (i.e. field restrictions, formatting rules, duplicate products not allowed)
		    a. Price is invalid.
		    b. Inform user.
		5. Repeat 4.
		6. Save new product.

Sketches **Steps 1 – 3 omitted. No change.**	Use Case – Step 4: Enter new product information. Use Case - Step 5: Correct product information. Use Case - Step 6: Resubmit product information. ![Buyer Module sketch] Exceptional Case	

Common Case – Adding a new customer to the system.

User Story	As a user, I want to add a new customer into the system.	
Actor	Customer Service Specialist	
Use Case	**Customer Service Specialist (CSS)** (initiates use case) 1. Launches the application 2. If the CSS has credentials, enters credentials. If the CSS does not have credentials, they should start a process external to this one to gain access to the system for this use case. 3. Navigate to the new customer screen. 4. Enter new customer information. 5. Submit new customer.	**System** 1. Requests credentials 2. Validates credentials. If the user is not in the system (or does not have permission for this function), inform the user. If the credentials pass validation, show CSS's module. 3. Show new customer screen. 4. Validates fields upon input (i.e. field restrictions, formatting rules, duplicate customers not allowed) 5. Store new customer.
Sketches	Use case 2: If the CSS has credentials, enters credentials. If the CSS does not have credentials, they should start a process external to this one to gain access to the system for this use case.	

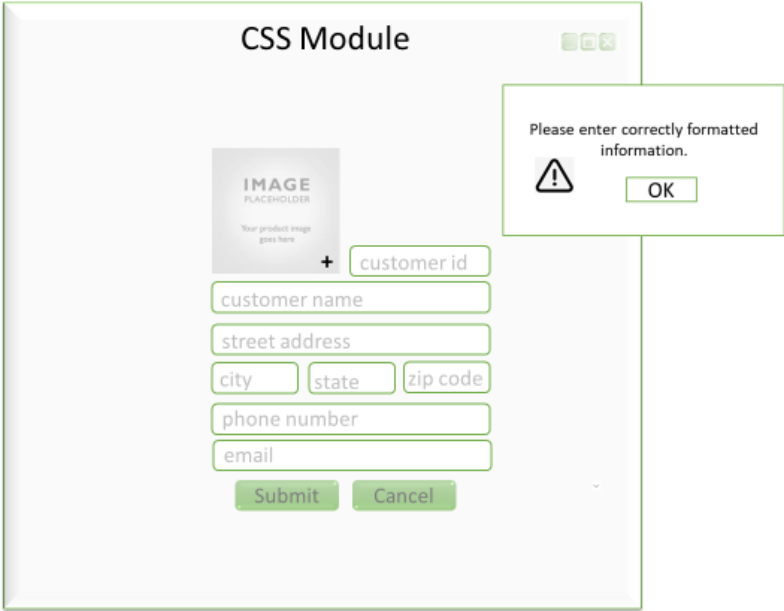|		
	Use Case – Step 3: Navigate to the new customer screen.	
	Use Case – Step 4: Enter new customer information. Use Case - Step 5: Submit new customer.	
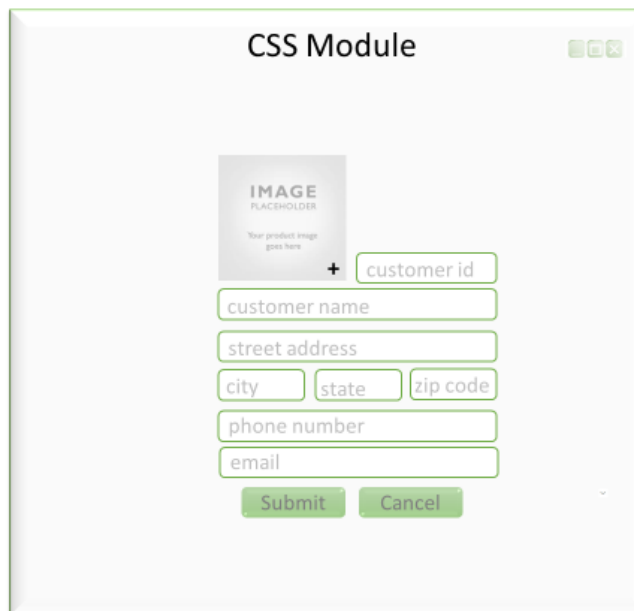
Case with exception – Adding a new customer to the system with an incorrectly formatted email address.

User Story	As a user, I want to add a new customer into the system.
Actor	Customer Service Specialist

Use Case	**Customer Service Specialist (CSS)** (initiates use case)
	
	1. Launches the application
	2. If the CSS has credentials, enters credentials. If the CSS does not have credentials, they should start a process external to this one to gain access to the system for this use case.
	3. Navigate to the new customer screen.
	4. Enter new customer information.
	5. Correct incorrectly entered information.
	6. Resubmit corrected customer information.
		System
		
		1. Requests credentials
		2. Validates credentials. If the user is not in the system (or does not have permission for this function), inform the user. If the credentials pass validation, show CSS's module.
		3. Show new customer screen.
		4. Validates fields upon input (i.e. field restrictions, formatting rules, duplicate customers not allowed).
		    a. Email is invalid.
		    b. Notify user.
		5. Repeat 4.
		6. Store new customer.

Sketches Steps 1 – 3 omitted since no change.	Use Case – Step 4: Enter new customer information. Use Case - Step 5: Correct customer information. Use Case - Step 6: Resubmit customer information.
Exceptional Case |

Common Case – Adding a new purchase to the system.

User Story	As a user, I want to record a purchase from a customer into the system.
Actor	**Salesperson**

Use Case	**Salesperson** (initiates use case)
	
	1. Launches the application
	2. If the salesperson has credentials, enters credentials. If the salesperson does not have credentials, they should start a process external to this one to gain access to the system for this use case.
	3. Scan/enter each product barcode number and quantity.
	4. Apply coupons, promo codes, price adjustments.
	5. If no customer information retrieved from customer db, add customer as new customer [process external to this use case].
	6. Inform customer of total.
	7. Accept payment from customer for sale.
	8. Enter payment information.
	9. Complete sale.
		System
		
		1. Requests credentials
		2.
		    a. Validates credentials. If the user is not in the system (or does not have permission for this function), inform the user. If the credentials pass validation, show sales module.
		    b. Show new sale screen.
		3. Look-up each unique item in inventory db. Adjust on-hand quantity based on sale. Provide per item price.
		4.
		    a. Validate codes and adjustments. If the code is not in the system and/or the adjustments are not allowable, inform the salesperson that a management override is required or that the sale will proceed at unadjusted price.
		    b. Promotional coupons or codes are given to customers. Retrieve customer information from customer db based on codes.
		5. [process external to this use case]
		6. NA
		7. NA
		8. Process payment.
		9. Store transaction.

Sketches

Use case 2: If the salesperson has credentials, enters credentials. If the salesperson does not have credentials, they should start a process external to this one to gain access to the system for this use case.

Sales Module

username

password   Login

No account? Request access by clicking here.

Use case 3: Scan/enter each product barcode number and quantity.

Use case 4: Apply coupons, promo codes, price adjustments.

Use case 5: If no customer information retrieved from customer db, add customer as new customer [process external to this use case].

Use case 6: Inform customer of total.

Use case 7: Accept payment from customer for sale.

Use case 8: Enter payment information.

Sales Module

No customer found   New Customer

IMAGE PLACEHOLDER
Your product image goes here

+   product id
price
product name
product description
size   unit   qty
barcode number

Bush's Vegetarian Beans x1 $.85
Pampers x1 $13.99
Coke Zero x1 $5.25

Sub-Total $20.09
Tax (4.75%) $.95
Total $21.04

promo code or coupon   Apply

Cash   Check/EFT   Debit/Credit Card

	Use case 9: Complete sale. **Sales Module** Sale complete!

Case with exception – Adding a purchase to the system with a product quantity in cart that exceeds the in-stock quantity.

User Story	As a user, I want to record a purchase from a customer into the system.	
Actor	**Salesperson**	

Use Case	**Salesperson** (initiates use case)
	
	1. Launches the application
	2. If the salesperson has credentials, enters credentials. If the salesperson does not have credentials, they should start a process external to this one to gain access to the system for this use case.
	3. Scan/enter each product barcode number and quantity.
	4. Correct quantity.
	5. Apply coupons, promo codes, price adjustments.
	6. If no customer information retrieved from customer db, add customer as new customer [process external to this use case].
	7. Inform customer of total.
	8. Accept payment from customer for sale.
	9. Enter payment information.
	10. Complete sale.
		System
		
		1. Requests credentials
		2.
		   a. Validates credentials. If the user is not in the system (or does not have permission for this function), inform the user. If the credentials pass validation, show sales module.
		   b. Show new sale screen.
		3. Look-up each unique item in inventory db. Adjust on-hand quantity based on sale. Provide per item price.
		   a. Compare qty. in cart with inventory.
		   b. Notify user that requested qty. exceeds qty. in inventory.
		4. Repeat 3.
		5.
		   a. Validate codes and adjustments. If the code is not in the system and/or the adjustments are not allowable, inform the salesperson that a management

		override is required or that the sale will proceed at unadjusted price. b. Promotional coupons or codes are given to customers. Retrieve customer information from customer db based on codes. 6. [process external to this use case] 7. NA 8. NA 9. Process payment. 10. Store transaction.
Sketches Steps 1 -3 and omitted since no change.	Use case step 3: Scan/enter each product barcode number and quantity. Use case step 4: Correct quantity. Use case step 5: Apply coupons, promo codes, price adjustments. Use case step 6: If no customer information retrieved from customer db, add customer as new customer [process external to this use case]. Use case step 7: Inform customer of total. Use case step 8: Accept payment from customer for sale. Use case step 9: Enter payment information.	