

IT2020 – Software Engineering

Year 2, Semester 1, 2025

Group Assignment

Online e-shopping store

Group Details

Campus:

SE/OOP Group Number: SE/OOP/2025/S1/MLB/WE/35

	Student Registration Number	Student Name
1	IT23607200	Weerakkody K.N.
2	IT23589940	Kanakasekara K.A.D.A.L.
3	IT23564886	Akmeemana A.M.A.A.S.
4	IT23707672	Atapattu A.M.C.M.K.

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Introduction

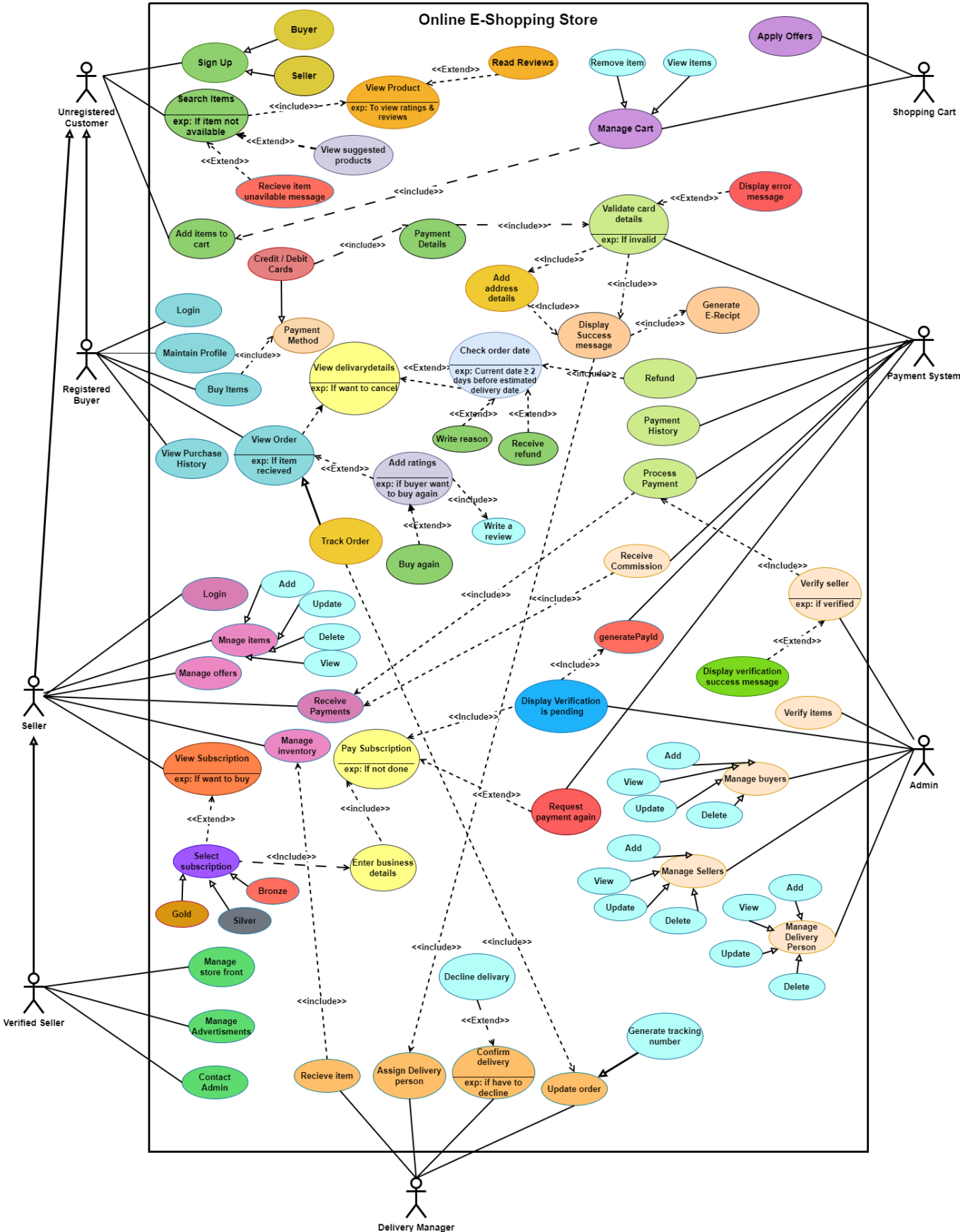
In the Online E-Shopping Store, a variety of users interact with the system to create a complete e-commerce experience. Visitors who have not yet registered are known as unregistered customers. They can browse and search for products, view item details, add items to the cart, and read reviews, but they must sign up or log in to make purchases or manage their shopping activities. Once registered, they become registered buyers, gaining access to a full set of features such as managing their profiles, making payments, tracking orders, and providing feedback through ratings and reviews.

On the other side of the marketplace, sellers join the platform to offer their products to buyers. These sellers can log in to manage their items, update offers, and monitor payments received. To build greater trust with customers, sellers can become verified sellers by undergoing an additional verification process conducted by the system administrators. Verified sellers are granted access to enhanced features such as managing their storefronts, advertising their products, and subscribing to special membership tiers like Gold, Silver, or Bronze, which offer different levels of exposure and benefits.

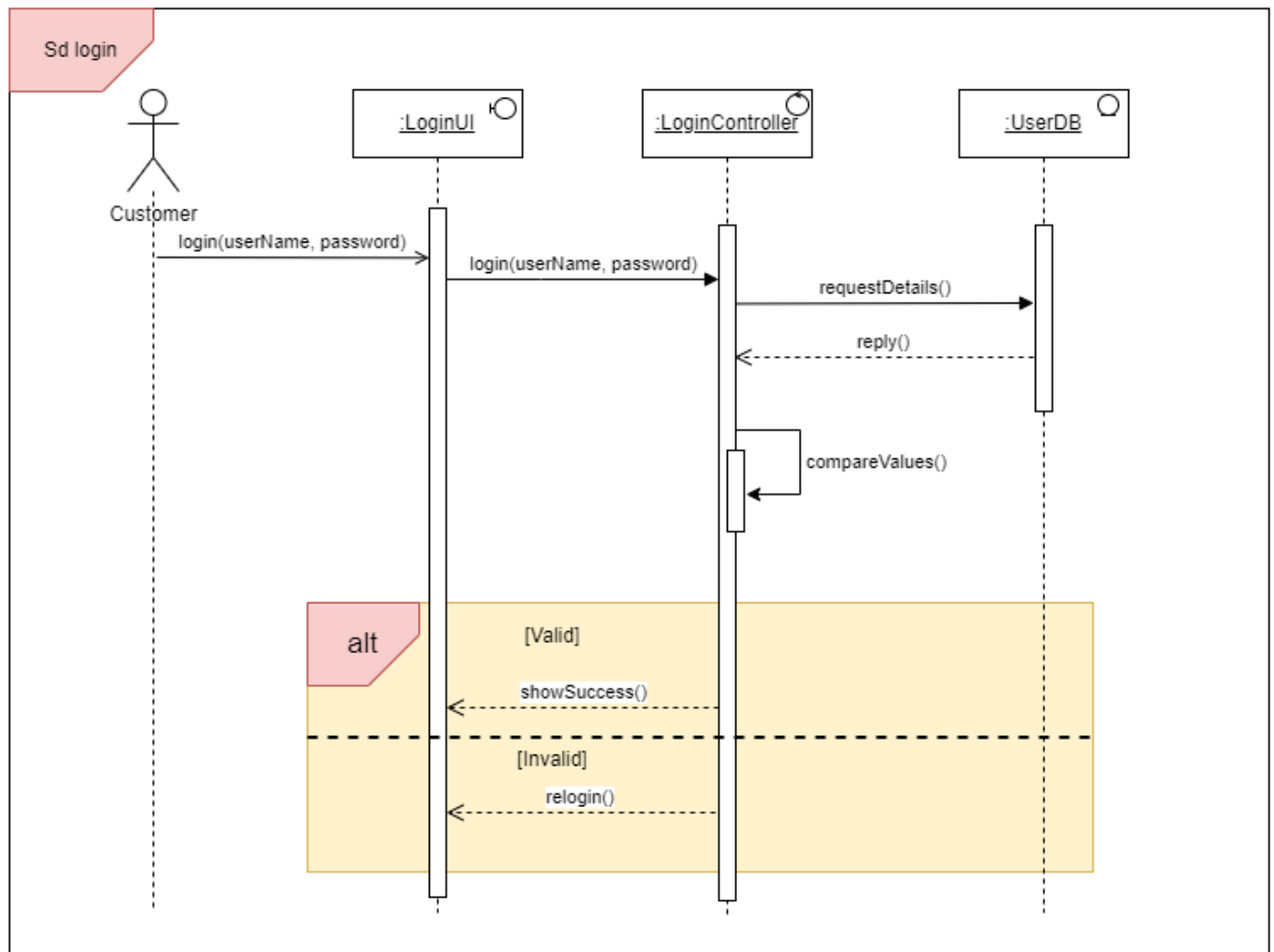
Supporting the shopping activities is the shopping cart system, which allows buyers to add, view, and remove items conveniently before proceeding to checkout. The entire purchasing process is backed by a secure payment system that manages tasks such as validating card details, processing transactions, issuing electronic receipts, and handling refunds if needed. Meanwhile, the platform administrators, or admins, oversee the entire operation. They are responsible for verifying sellers and products, managing users, and ensuring that the platform remains trustworthy and efficient.

To complete the buyer's journey, the delivery manager plays a crucial role by managing the delivery process after an order is placed. They assign delivery personnel, track the delivery progress, and update order statuses to ensure that products reach buyers on time. Together, these actors create a seamless and reliable e-shopping experience that connects buyers and sellers through a trusted and efficient online marketplace.

Use Case Diagram



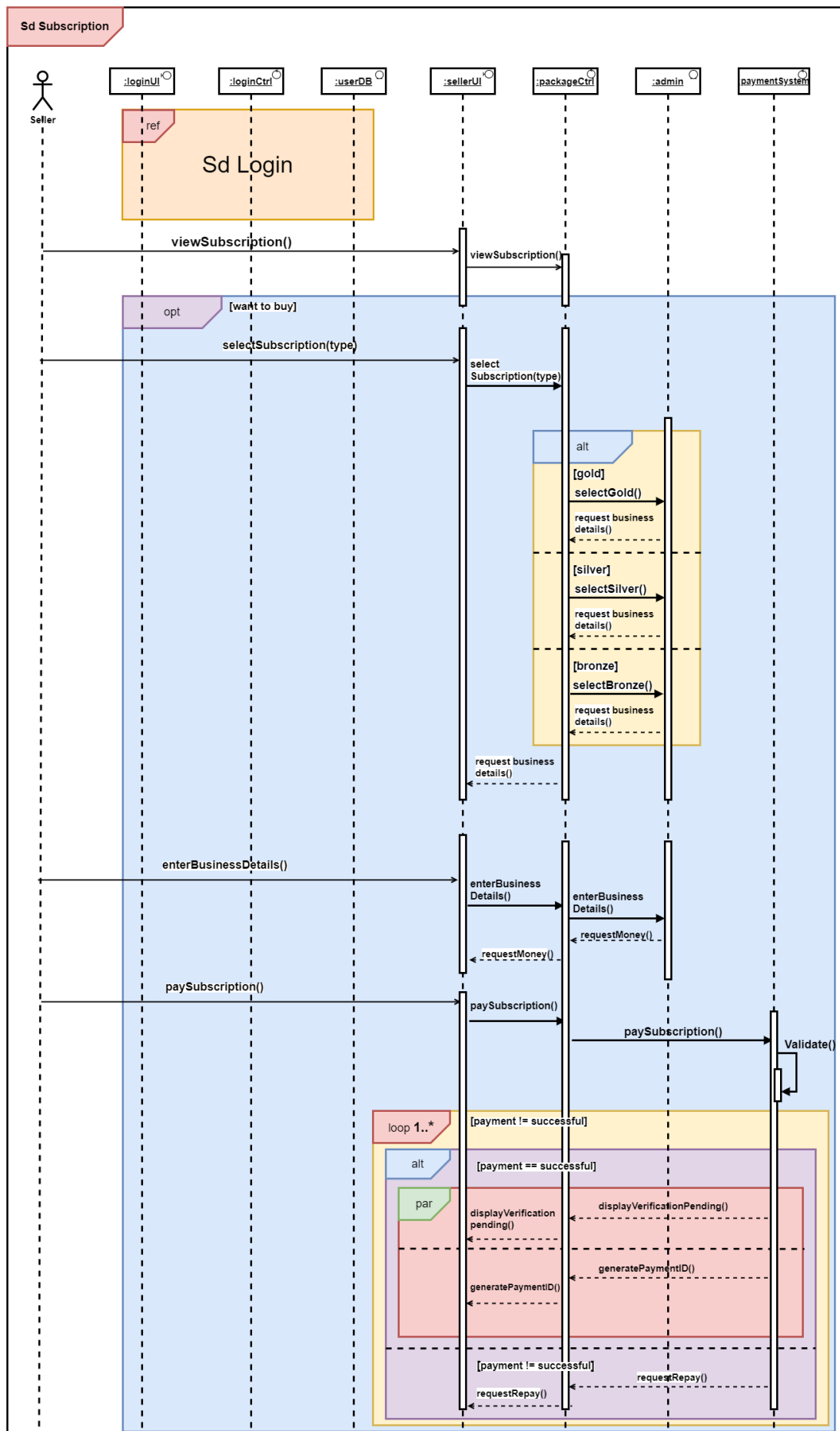
Login Sequence Diagram



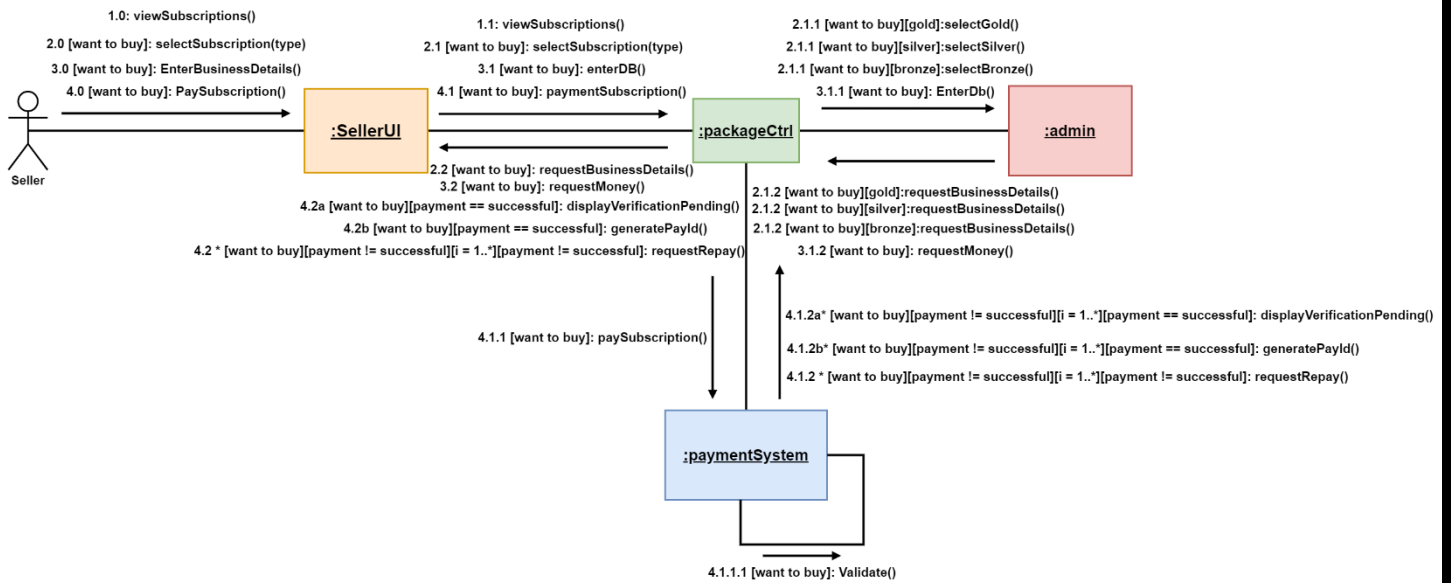
Use Case Scenario Akmeemana A.M.A.A.S.

IT23564886		
Number	1	
Name	View Subscriptions	
Summery	Can view subscriptions packages and buy one of them to be a verified seller.	
Priority	2	
Pre - Conditions	Needs to register and login as a seller to the system.	
Post - Conditions	If payment is successful, receive verification pending message and pay id.	
Primary Actor	Seller	
Trigger	Click the “View subscriptions” button	
Main Scenario	Step	Action
	1	Login as a seller
	2	View subscriptions
	3	Select subscription
	4	Enter business details
	5	Pay subscription
Extensions	Step	Branching action
	2.a	If do not want to buy, go back to the home page.
	3.a	If the user wants to buy gold subscription, select gold.
	3.b	If the user wants to buy silver subscription, select silver.
	3.c	If the user wants to buy bronze subscription, select bronze.
	5.a	If the payment process is not successful, the user must start the payment process again.
	5.b	If payment is successful, receive verification pending message and pay id as well.

Sequence Diagram Akmeemana A.M.A.A.S.



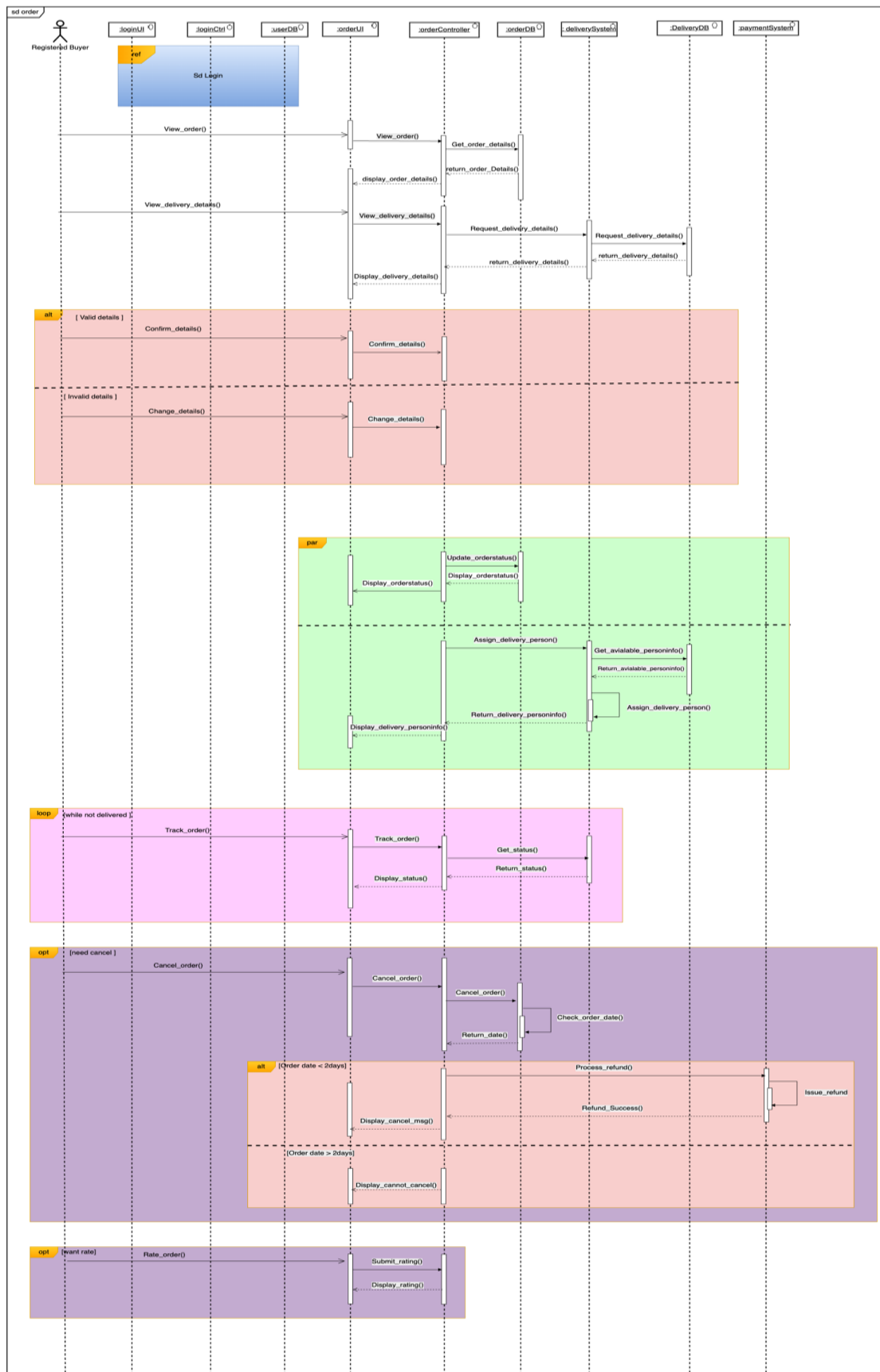
Communication diagram Akmeemana A.M.A.A.S.



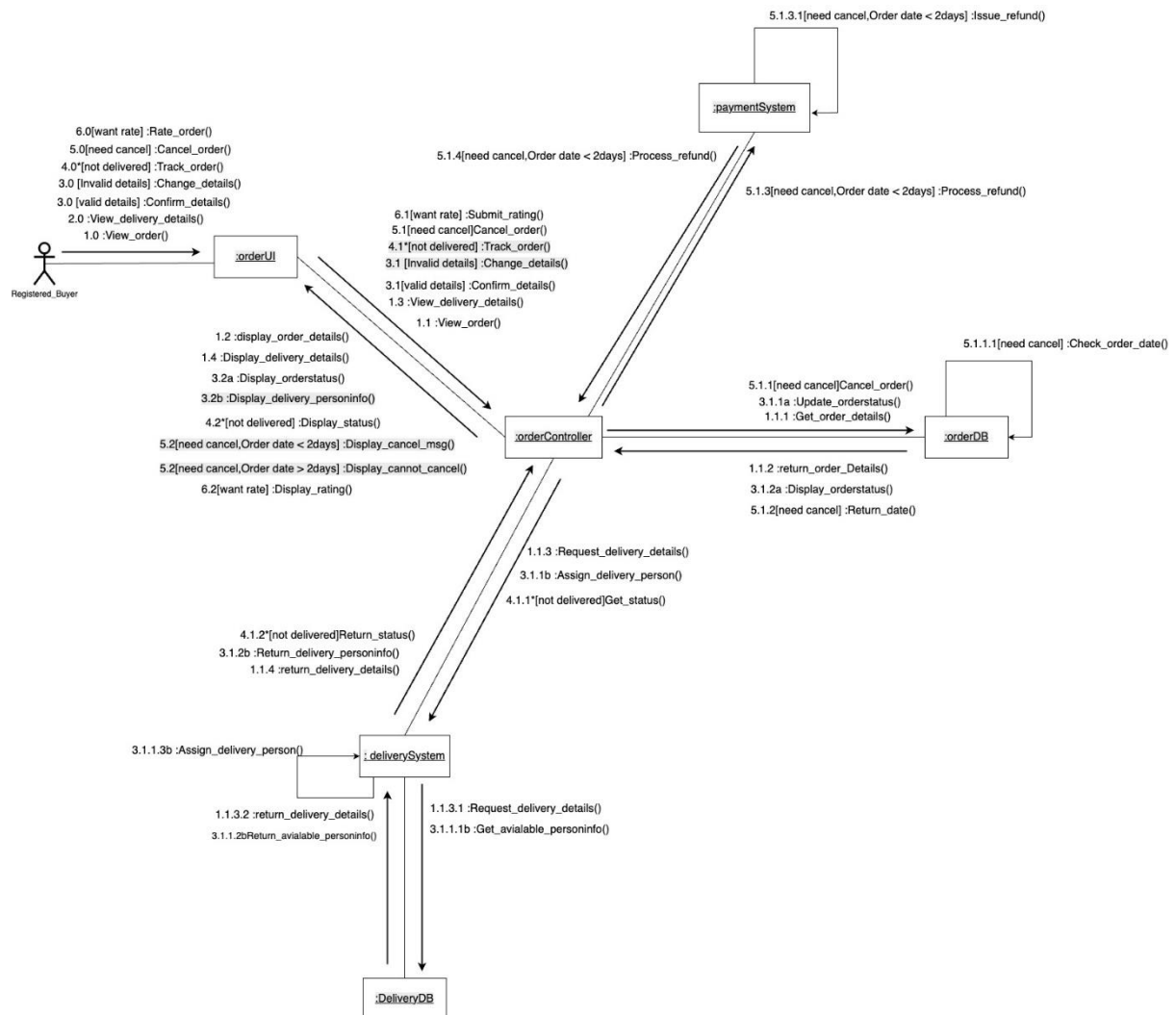
User case scenario **Weerakkody K.N.**

IT23607200		
Number	2	
Name	Order	
Summery	Customer receives the product	
Priority	1	
Pre - Conditions	Registered buyer bought the product	
Post - Conditions	Successfully order receive	
Primary Actor	Registered buyer	
Trigger	Buying the product	
Main Scenario	Step	Action
	1	View order
	2	View delivery details
	3	Detail validation
	4	Get order status
	5	Get delivery person info
	6	Track order
	7	Cancel order
	8	Rate order
Extensions	Step	Branching action
	3.a	If the details are invalid ,change the details
	7.a	If order date is less than 2 days cancel the order and give refund
	7.b	If order date is more than 2 days can't cancel the order
	8.a	If customer skip rate order allows to end the process after track order

Sequence Diagram Weerakkody K.N.



Communication Diagram Weerakkody K.N.



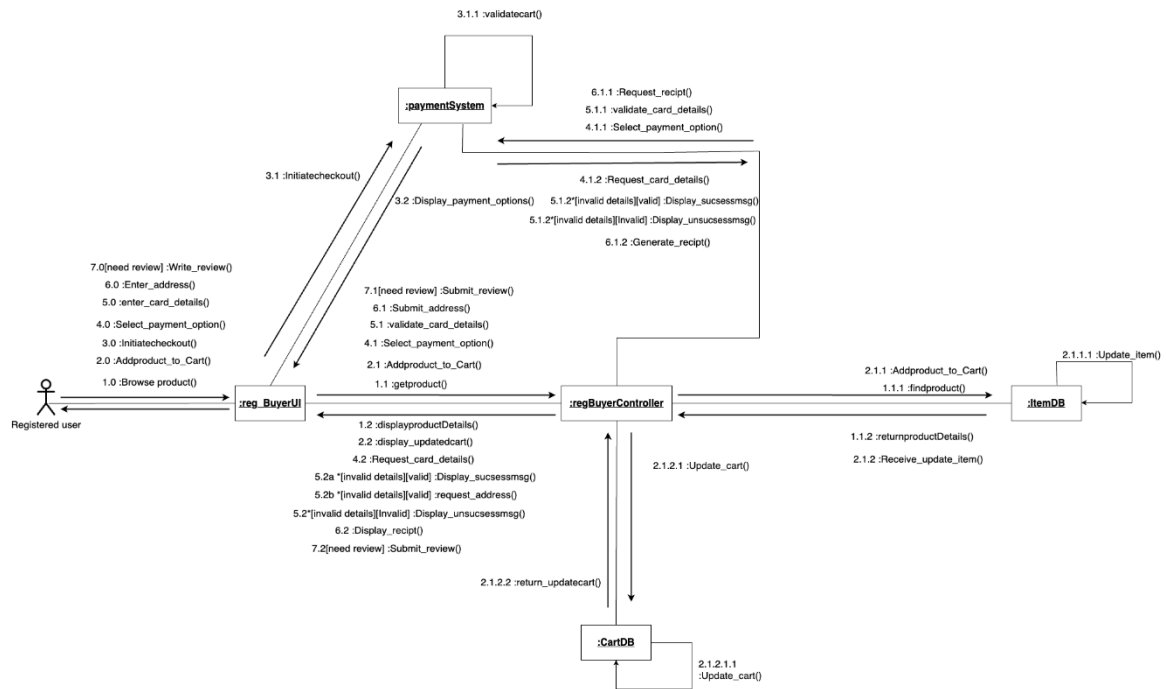
User case scenario **Kanakasekara K.A.D.A.L.**

IT23589940		
Number	3	
Name	Buy items	
Summery	Registered customer buys a product	
Priority	1	
Pre - Conditions	Logged in to the system	
Post - Conditions	The order is placed successfully	
Primary Actor	Registered customer	
Trigger	Registered buyer wants to buy a product from the system	
Main Scenario	Step	Action
	1	Browse products
	2	Add product to cart
	3	Initiate checkout
	4	Select payment options
	5	Enter card details
	6	Payment validation
	7	Enter address
	8	Receive receipt
	9	Submit Review
Extensions	Step	Branching action
	6.a	If the validation is successful display successful msg
	6.b	If the validation is successful require address details
	6.c	If the validation is Unsuccessful display Unsuccessful msg
	9.a	If the buyer skips the submit review, end the process after displaying receipt

Sequence Diagram Kanakasekara K.A.D.A.L.



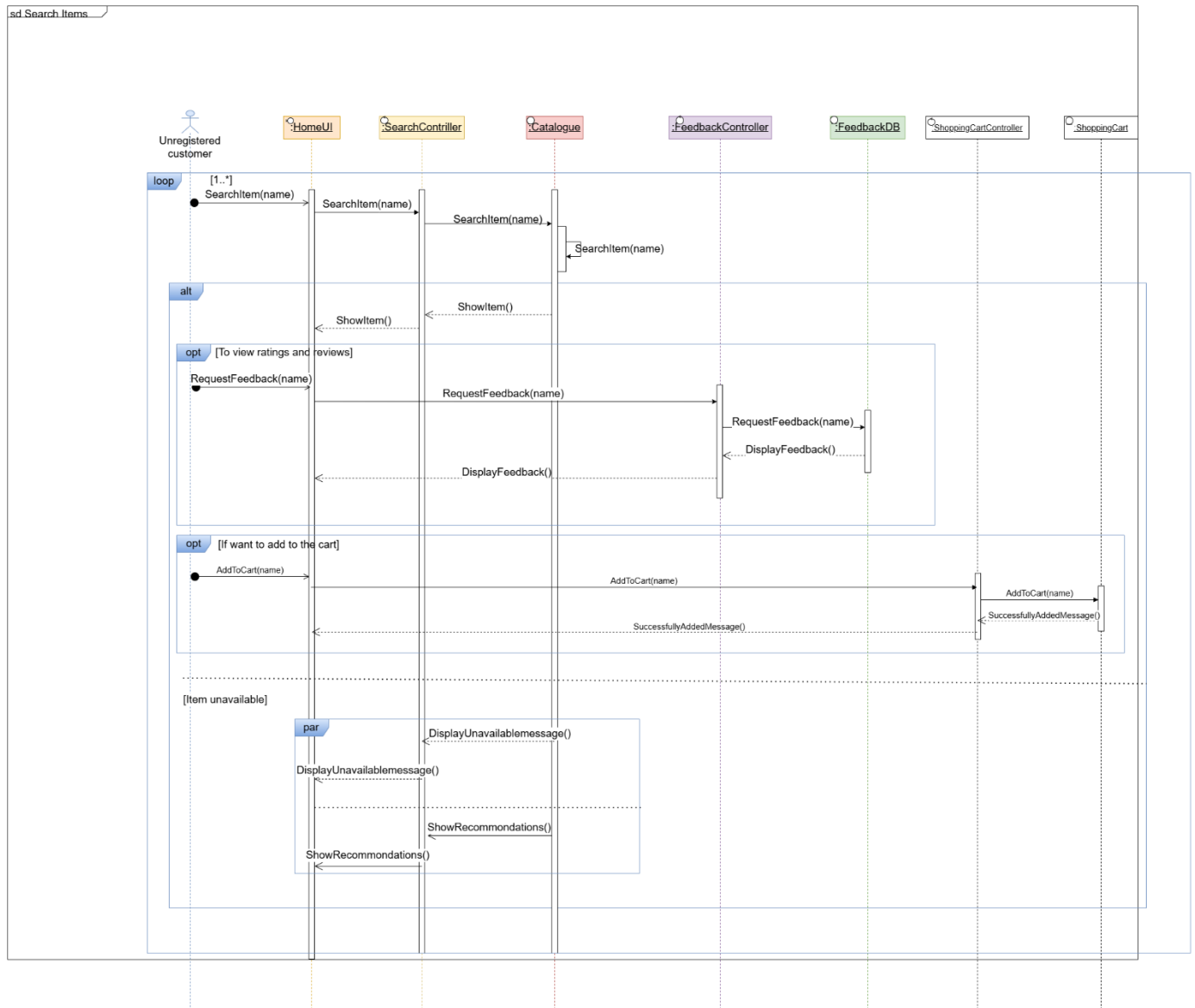
Communication Diagram **Kanakasekara K.A.D.A.L.**



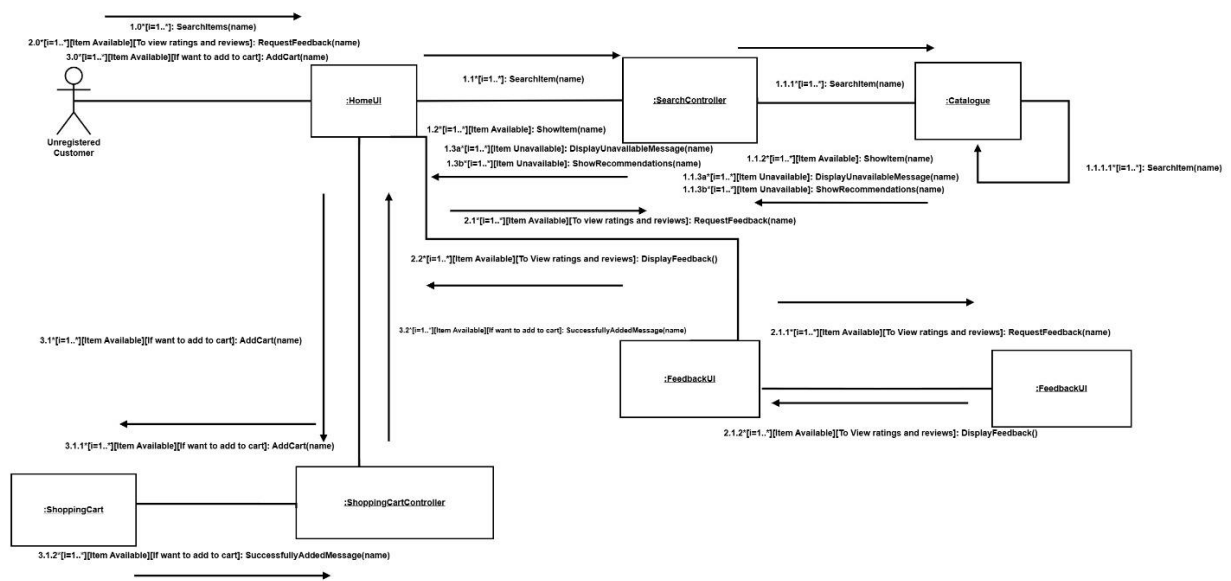
User case scenario **Atapattu A.M.C.M.K.**

IT23707672 Atapattu A.M.C.M.K.		
Number	4	
Name	Search Item	
Summery	An unregistered customer searching for a product	
Priority	1	
Pre - Conditions	Access the home page	
Post-Conditions	If there are no products in the database as requested look through the recommended products	
Primary Actor	Unregistered User	
Trigger	Click the search button	
Main Scenario	Step	Action
	1	Search for Items
	2	View Search Results
	3	Request and view ratings and reviews for a selected item. (Optional)
	4	Add an available item to the shopping cart. (Optional)
	5	View Recommendations. (Optional)
Extensions	Step	Branching action
	2.a	If the item is unavailable, display an unavailability message.
	2.b	If the item is unavailable, show recommended alternative items.
	3.a	If the user does not request feedback, continue browsing or selecting items.
	4.a	If the item is added successfully, display a confirmation message.
	4.b	If the user does not add an item to the cart, continue browsing or selecting other items

Sequence Diagram **Atapattu A.M.C.M.K.**



Communication Diagram Atapattu A.M.C.M.K.



Contributions

	Student Registration Number	Student Name	Function Name
1	IT23607200	Weerakkody K.N.	Order
2	IT23589940	Kanakasekara K.A.D.A.L.	Buy items
3	IT23564886	Akmeemana A.M.A.A.S.	Seller buys a subscription
4	IT23707672	Atapattu A.M.C.M.K.	Search Items & login