

IT2020 – Software Engineering

Year 2, Semester I, 2024

Group Assignment

Online Stock management system

Group Details

Campus: SLIIT Malabe

SE/OOP Group Number:2024/S1/MLB/WD/G57

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Introduction

Prime Lanka is an online marketplace where clients can simply order goods and receive excellent service. You have the option to place product orders with Prime Lanka. Clients are able to self-register for the system. Customers who have registered can see the app and check product prices by multiple amounts.

The Inventory Manager has to monitor stock levels in the warehouse. The inventory manager logs into the online stock management system and checks the current stock levels. Based on the stock levels, generates a list of purchase orders for products that need to be replenished. The inventory manager selects the appropriate suppliers for each product. If a selected supplier hasn't ordered products as expected, the inventory manager selects another supplier to fulfill the order. Once the suppliers are selected, the inventory manager confirms and places purchase orders with the chosen suppliers. After receiving shipment details from the suppliers, the inventory manager checks the quality of the received products to ensure they meet the company's quality standards. If the received products are found to be not in quality, the inventory manager initiates a re-ordering process with the supplier to replace the defective items. If there are no quality issues with the received products, the inventory manager allocates the new stock to appropriate locations within the warehouse. After the new stock is allocated, the inventory manager conducts inventory reconciliation by comparing the physical inventory counts with the system records.

The customer can use their login credentials to access the system. It is verified by the system. The system prompts the user to provide the proper credentials if they are entered incorrectly. Users can reset their passwords if they can't remember their login information.

Customers must choose the category, quantity, and payment method while placing an order for goods. The system computes the price and shows it to the customer based on those details.

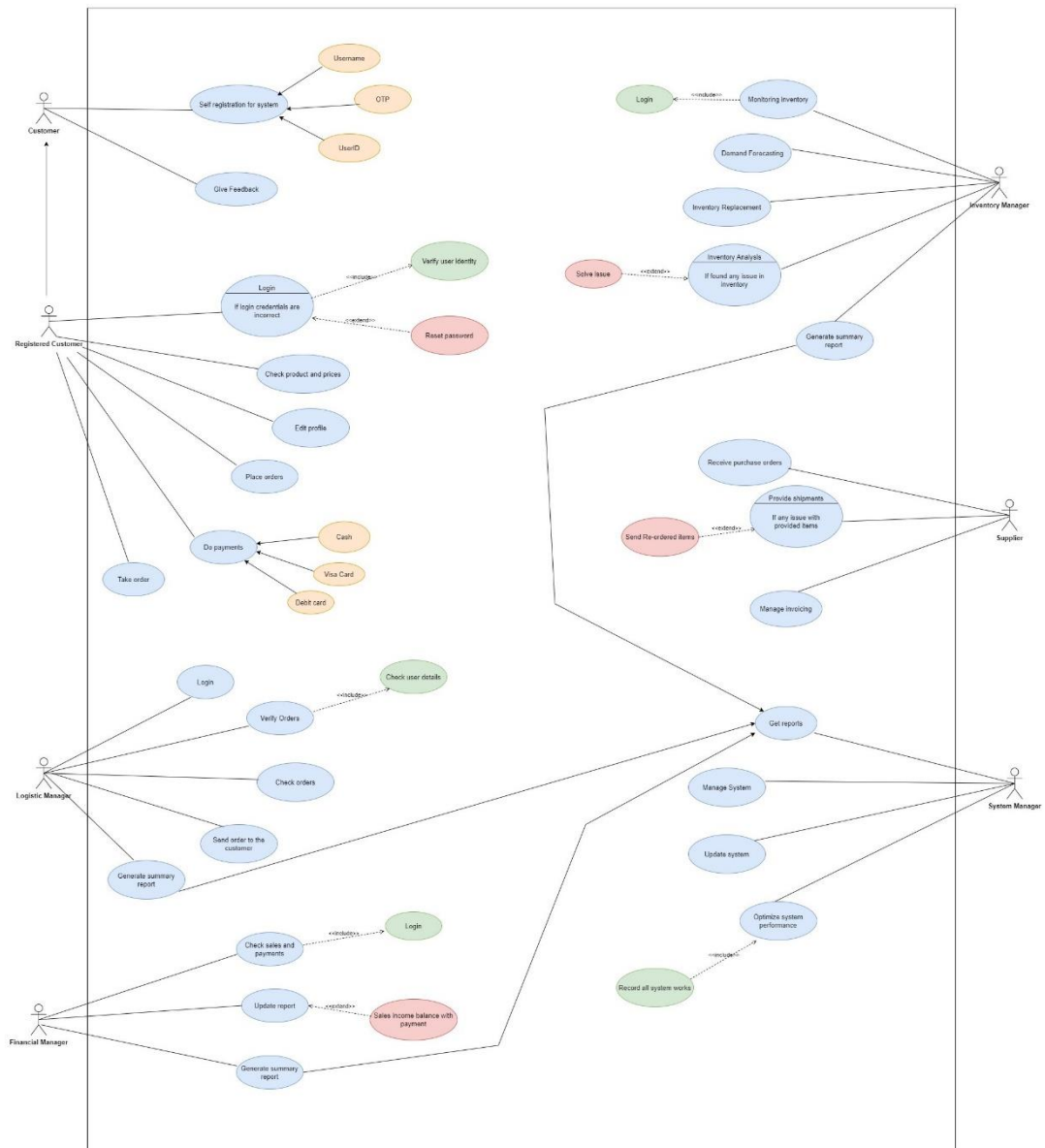
Customers have the option of paying with cash, debit cards, or credit cards. When a customer orders things, he can add card data. After logging into the system, the logistic manager can verify the orders from customers. Upon successful payment, the logistic manager can dispatch the appropriate packages to the customer.

By examining sales and payments, the financial manager can generate a sales report. He can produce a report if sales and payments are in balance. If not, he needs to double-check and generate the reports once more. Financial managers can upload reports to the appropriate report section once they have been successfully generated. After the upload is finished, the system displays the message "Upload successful."

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High level Use case diagram

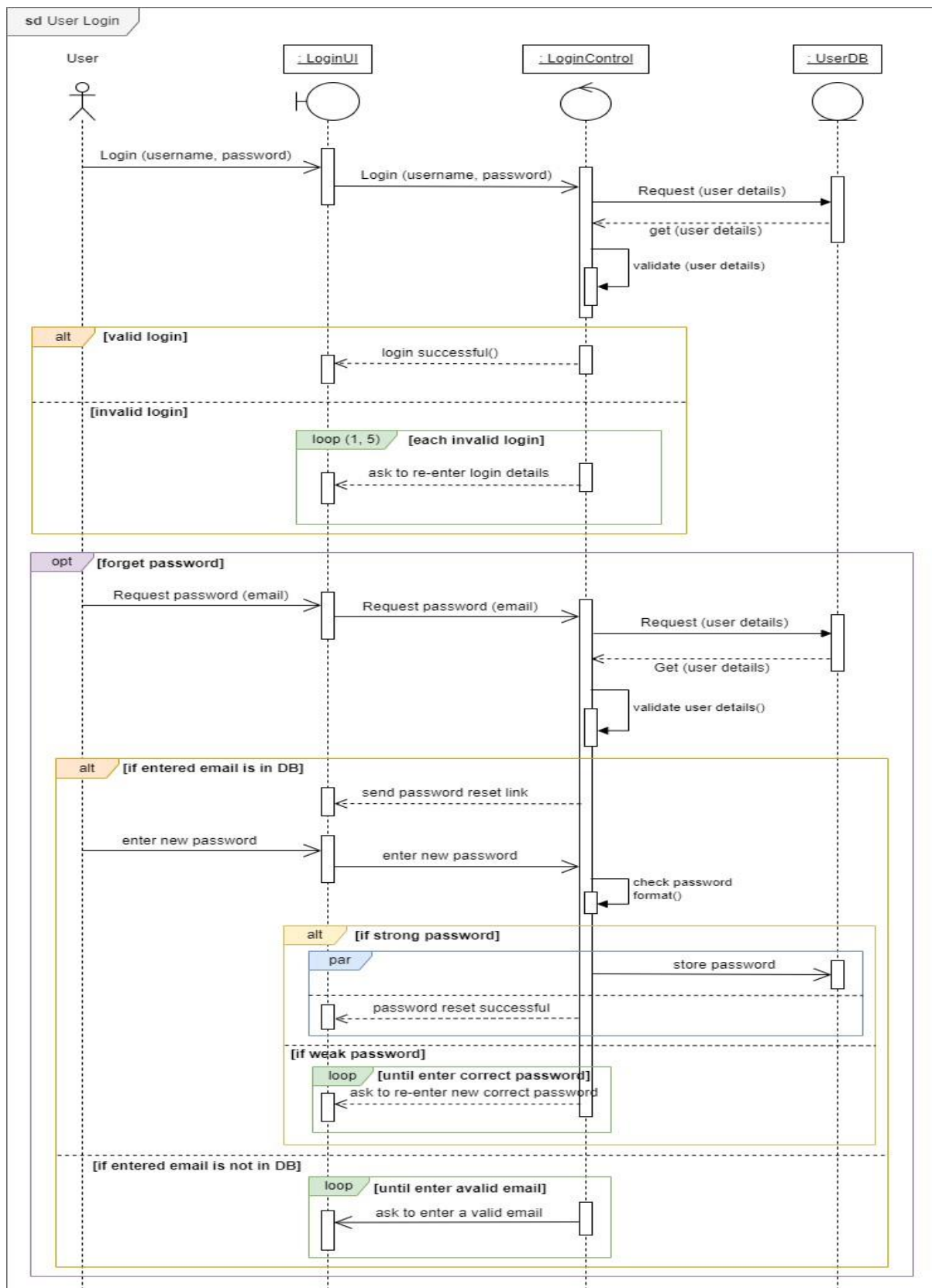


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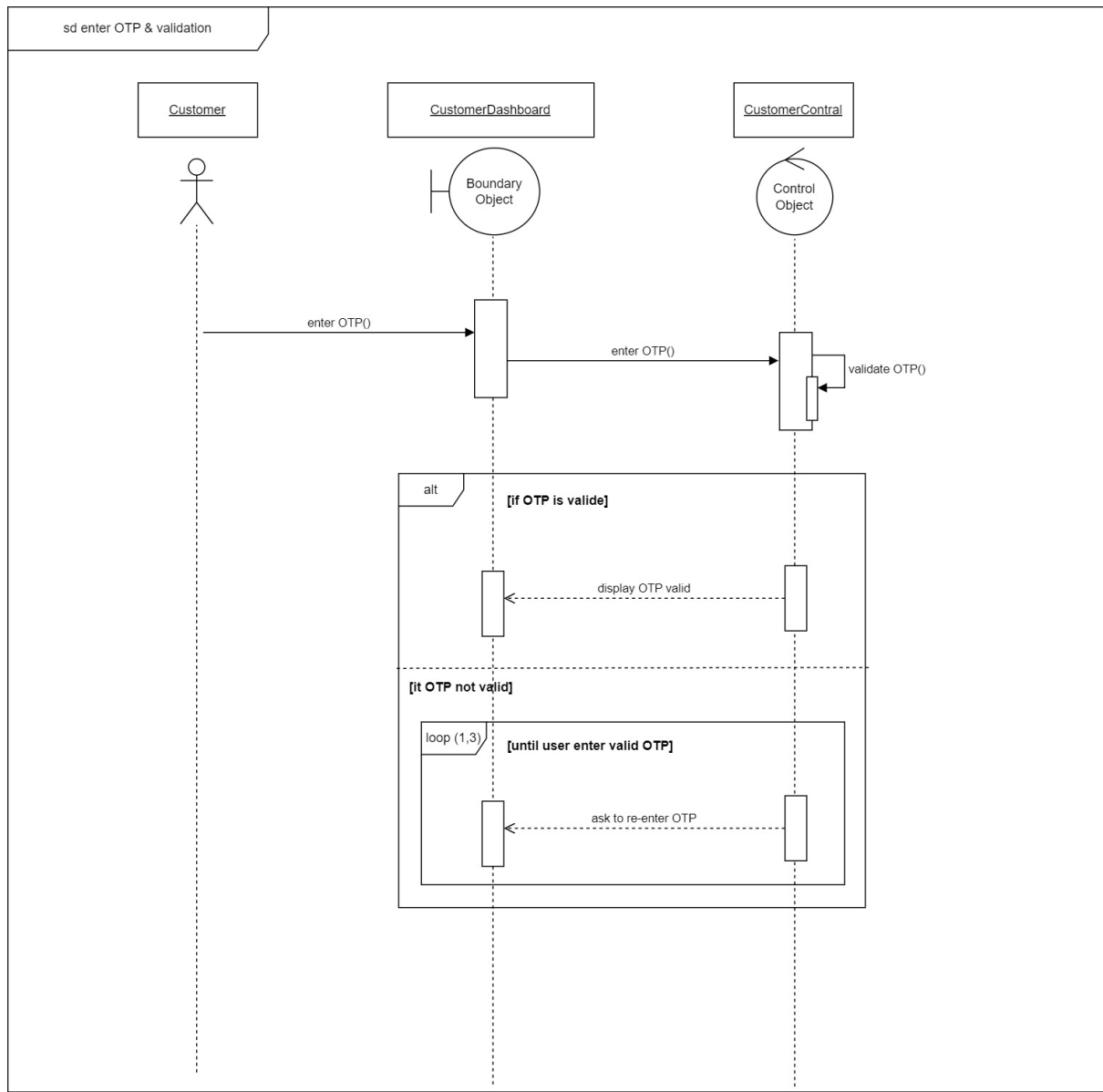
Use case scenario -User Login

Name	User login	
Summary	User login	
Priority	8	
Pre-conditions	The user must be registered with the system	
Post-conditions	The user can log in to system	
Primary Actors(s)	Customer, finance manager, Logistic manager ,Inventory Manager	
Secondary Actor(s)	-	
Main Scenario	Step	Action
	1	The user navigates to the login interface of the system
	2	The user enters his login credentials (username & password)
	3	The user can navigate to the “Forget Password “option and click on it.
	4	The user has to enter a registered Email address to recover password
	5	The user types new password and proceeds
Extensions	Step	Branching action
	2. a	The system checks whether entered username and password are valid or invalid.
	2. b	If not ,ask to re-enter username /password , maximum up to 5 times including current attempt.
	4. a	System check where entered email is in user records and validate it
	4. b	If it is in ,send password reset link to recover password
	4. c	If not system ask to enter valid email
	5. a	The system checks whether the new password is strong or not
	5. b	If not ,ask to re-enter a new password until type a strong password

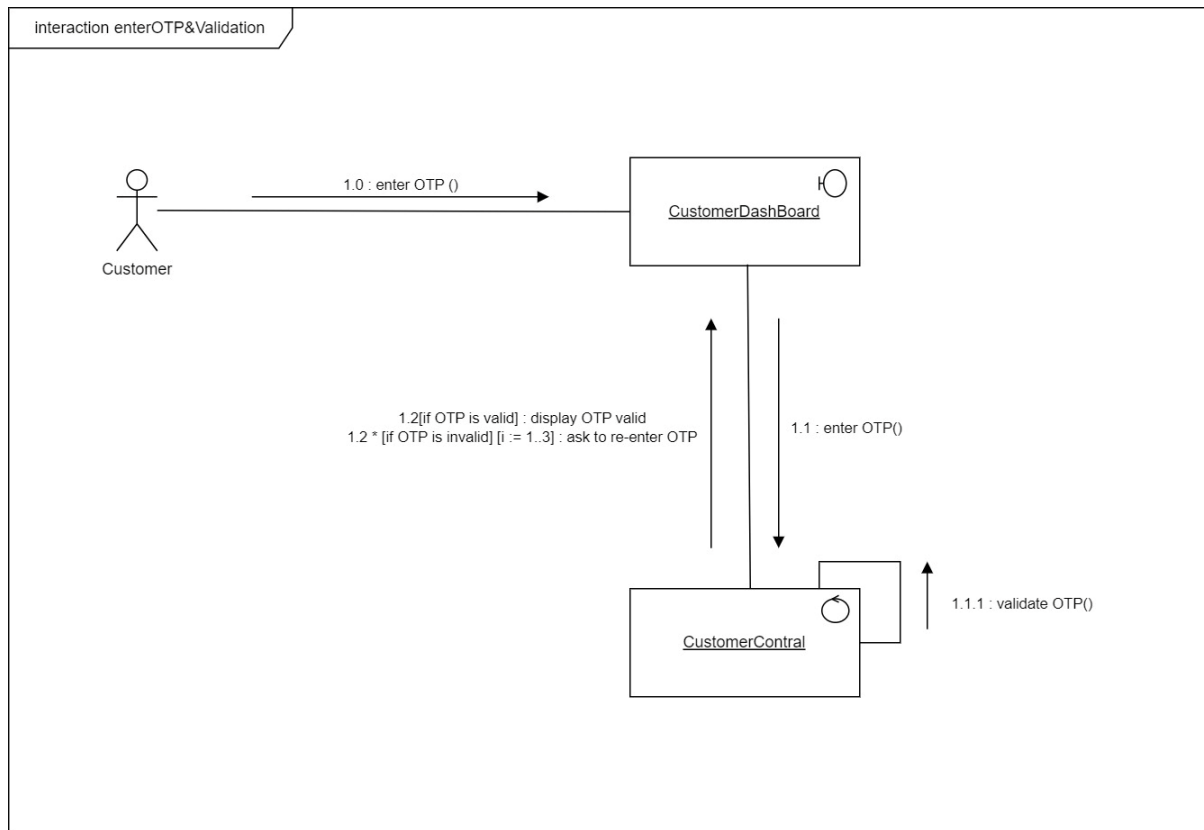
Sequence Diagram – User login



Sequence diagram -OTP validation



Communication diagram -OTP validation

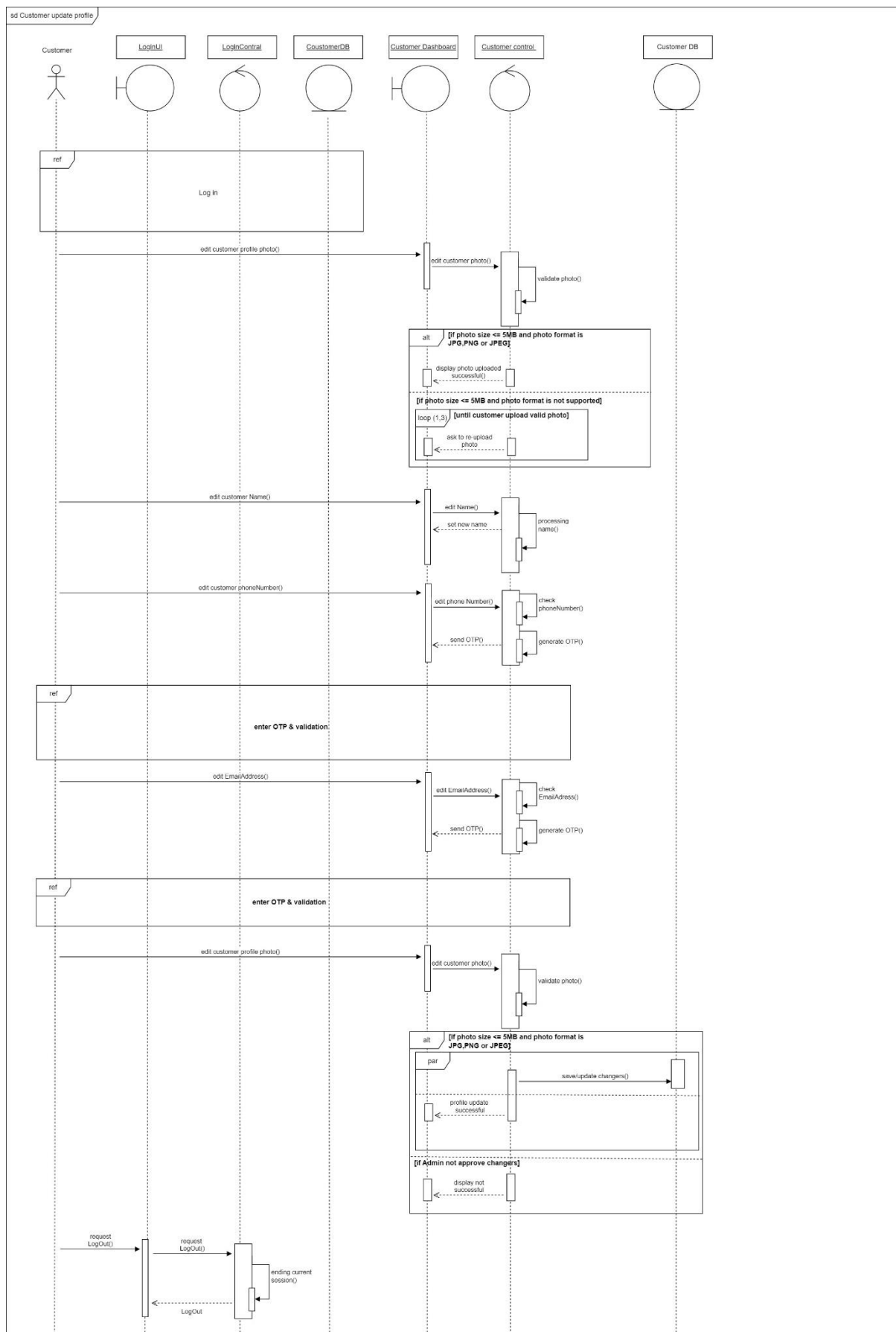


Use case scenario -Edit customer profile

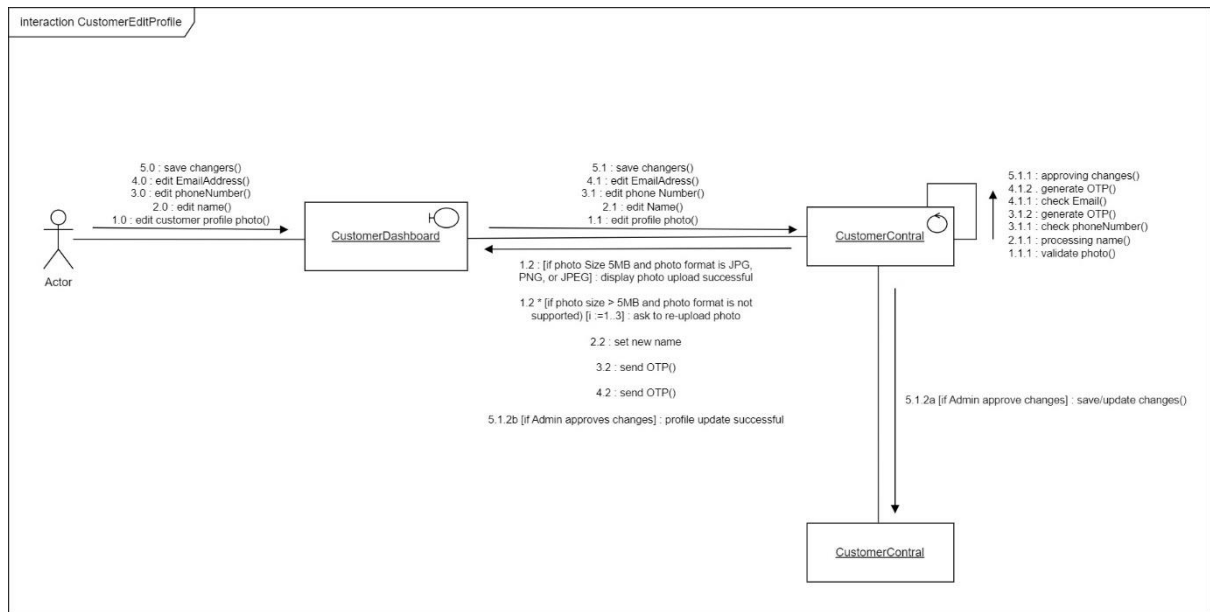
Name	Customer edits profile	
Summary	Customer can edit their profile information.	
Priority	2	
Pre-conditions	Customer is logged into the system	
Post-conditions	Customer's profile update information	
Primary Actors(s)	Customer	
Secondary Actor(s)	Admin	
Main Scenario	Step	Action
	1	Customer login to the system using his login credentials.
	2	Customer navigates to the Customer UI.
	3	Go to the navigation menu.
	4	The user selects "Customer Profile".
	5	Navigate to the Customer profile and click on "Edit Customer".
	6	The user clicks on "Edit profile photo".
	7	System pop-out a window to select a photo to upload as a profile photo.
	8	System display "photo uploaded".
	9	The user clicks on the First name and changes it.
	10	The user clicks on the Last Name and changes it.
	11	The user clicks on the phone number and enters the phone number with the country code and clicks "Add".
	12	The user enters the verification code sent to the mobile phone.
	13	The system display "Phone Number updated".
	14	The user clicks on Email and enters a new email address and clicks "set".
	15	The user enters the verification code sent to the provided email address.
	16	System display "Email Updated".
	17	The user clicks on "Save Changes".
	18	System display "Updated Successfully".

	19	The user logs out of the system.
Extensions	Step	Branching action
	1. a	The system checks whether entered login credentials are valid or invalid.
	1. b	If the entered login credentials are invalid, the system will show an error message and ask to re-enter logging credentials (maximum up to 5 times including the current attempt).
	1. c	The system displays the “Forget password” option to recover the password.
	7. a	The system checks whether the photo size is less than or equal to 5MB and photo format is JPG, PNG, or JPEG.
	7. b	If not system display “Invalid photo format or photo size exceeds 5MB”.
	11. a	The system checks whether the phone number format is correct.
	11. b	The system sends a verification code to the given mobile number.
	12. a	The system checks whether the code is valid or invalid.
	12. b	If not valid ask to re-enter the code.
	14. a	The system checks whether the email address is a valid one.
	14. b	If not ask to re-enter a valid email address.
	14. c	The system sends a verification code to the email address.
	15. a	The system checks whether entered code is valid or invalid.
	15. b	If not ask to re-enter the code.
	17. a	Changes forward to Admin for approving changes/modifications.
	17. b	If not approved by the admin, display “Please try again”.

Sequence diagram -Edit customer profile



Communication diagram -Edit customer profile

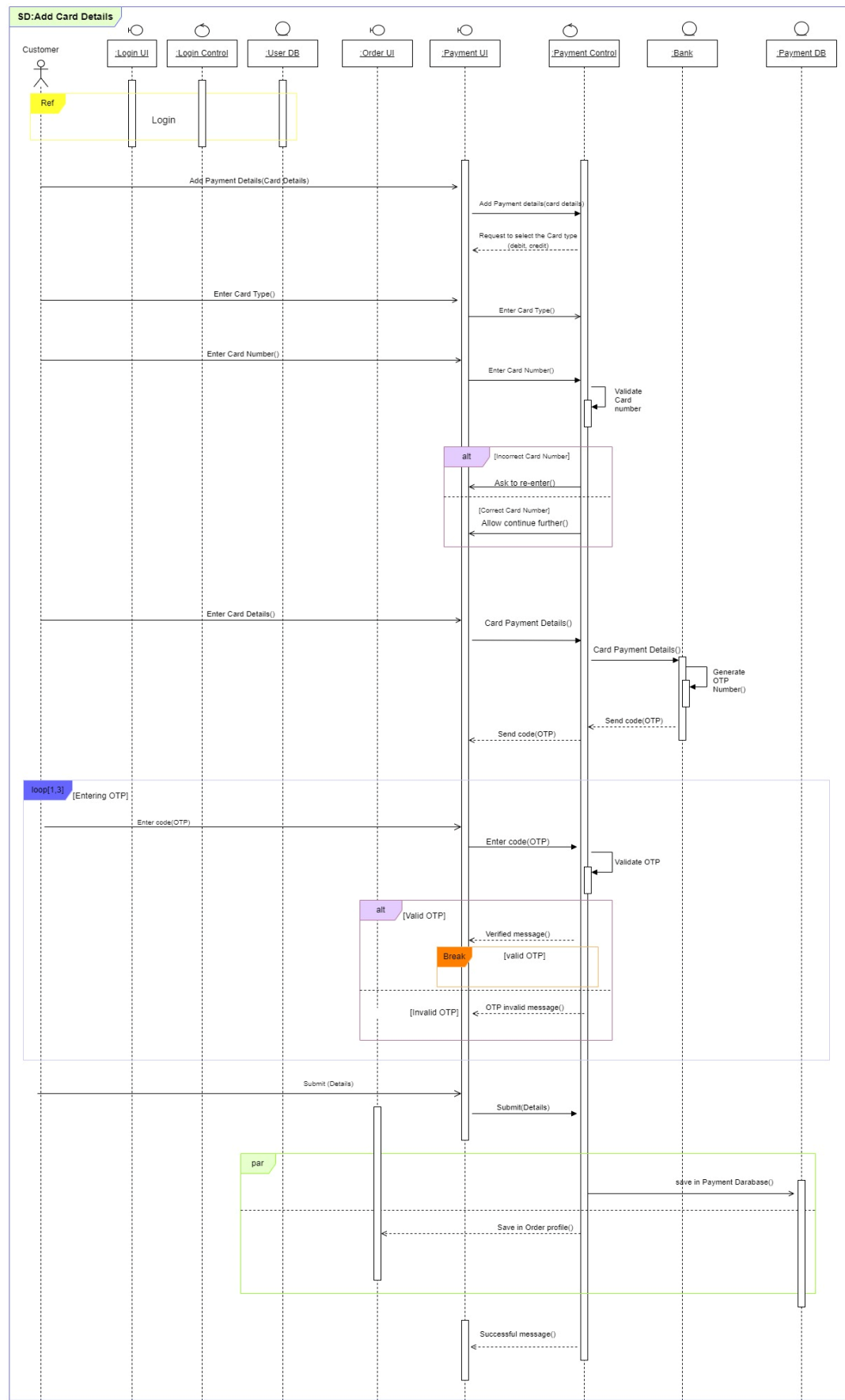


Use case scenario -Add card details

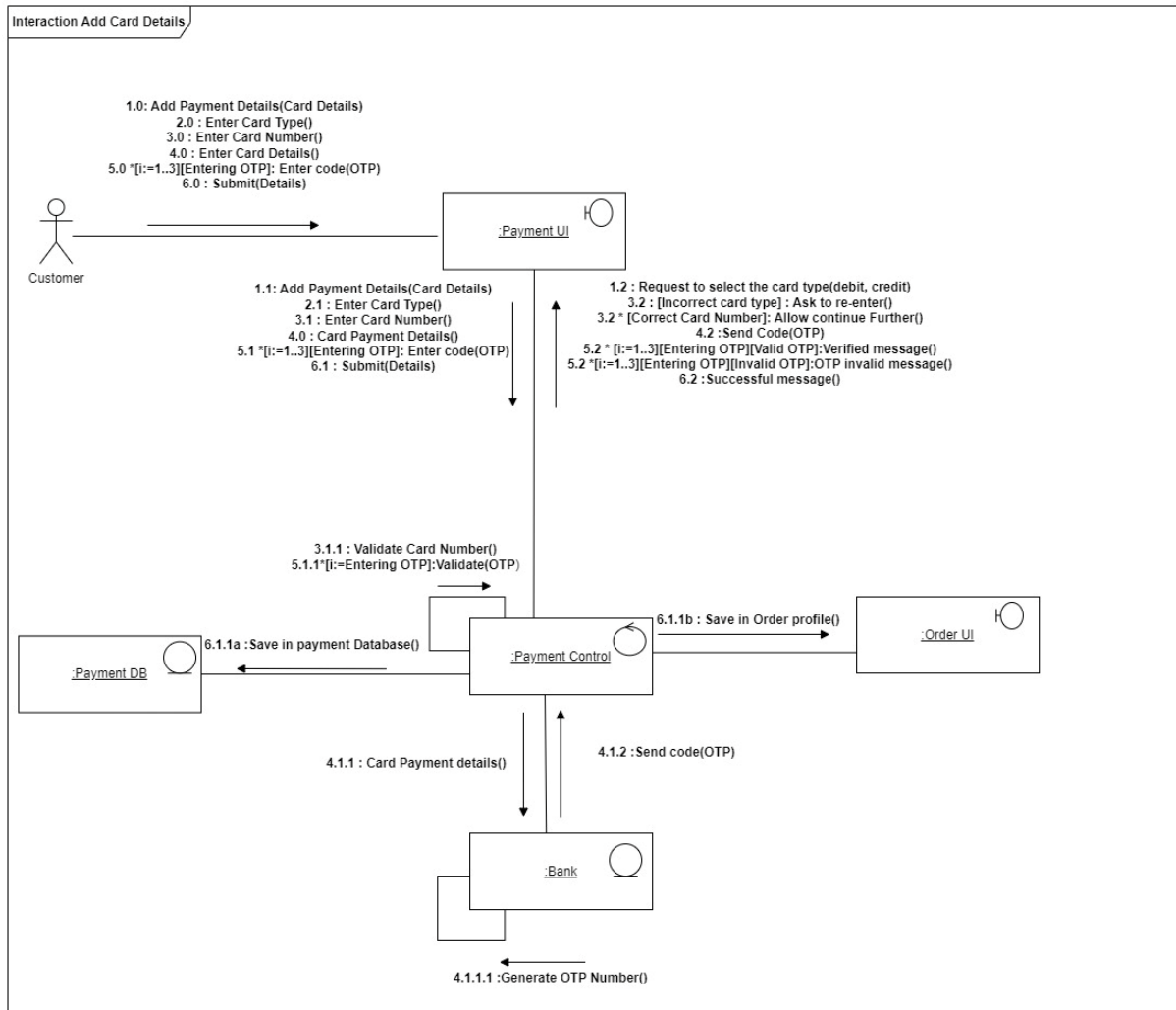
Name	Add Card Payment details	
Summary	Adding card payment details	
Priority	8	
Pre-conditions	Must login to the system as a registered user	
Post-conditions	Payment card detail confirm.	
Primary Actors(s)	Customer	
Secondary Actor(s)	-	
Main Scenario	Step	Action
	1	Login to the website using credentials.
	2	Go to 'Order' page through the navigation bar
	3	Select 'Add Payment Details'.
	4	Select 'Add new debit card or Credit card'.
	5	Select the 'Card type'.
	6	Fill the card details.
	7	Press 'Save and Confirm' after filling the details.
	8	Enter received OTP number.
	9	Validate OTP
	10	Press 'Submit' to save entered card details.
	11	Get Add card payment method success alert.
	12	Meanwhile System saves the card details in order profile.
Extensions	Step	Branching action
	1. a	Display error message if the entered login credentials are wrong.

	2. b	Customer can add card details when ordering also.
	6. a	If the card number is incorrect, show an invalid error message.
	9.a	Display an error message if the entered OTP number is invalid
	9.b	Allow the customer to enter the OTP number again

Sequence Diagram - Add card details



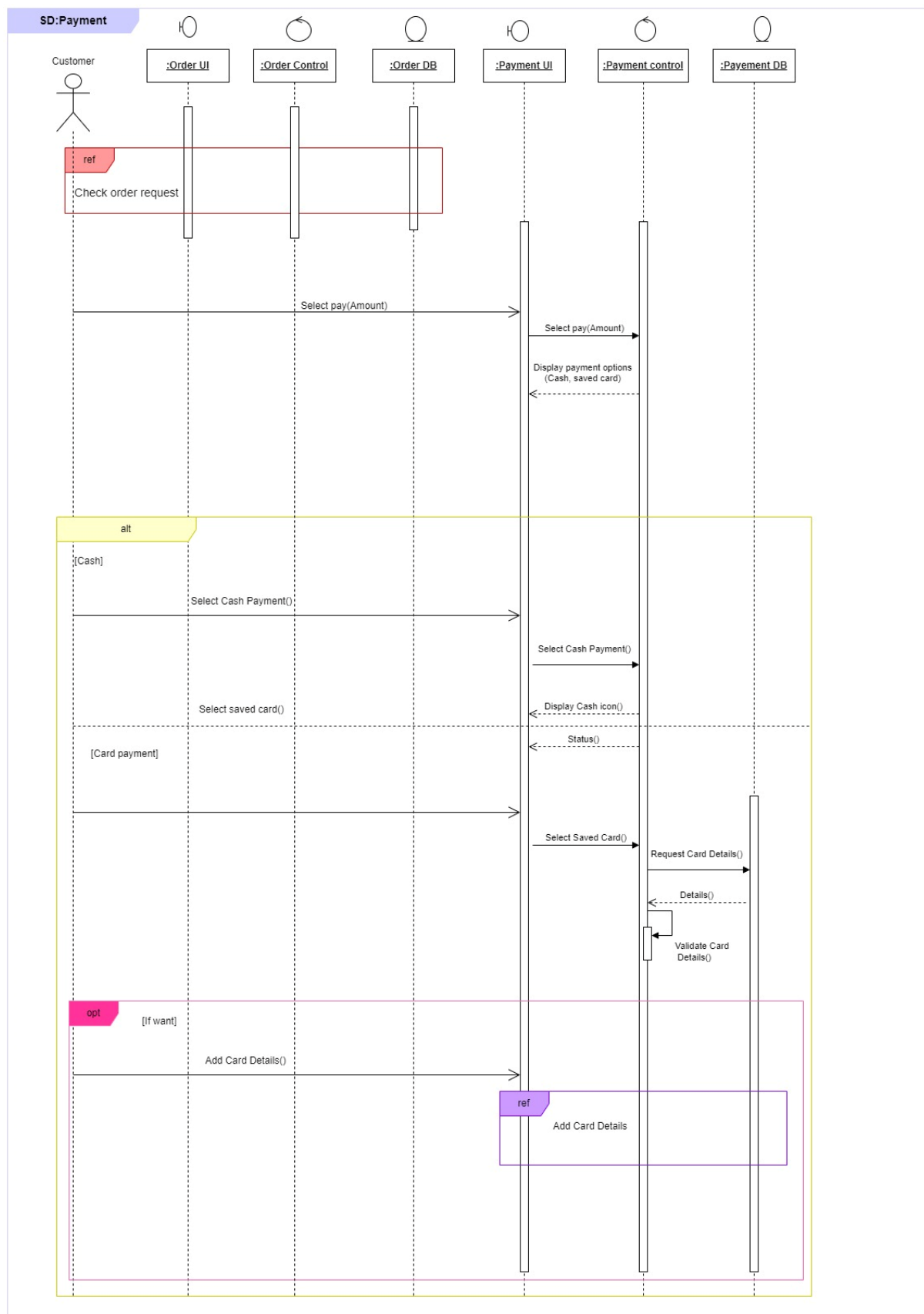
Communication Diagram - Add card details



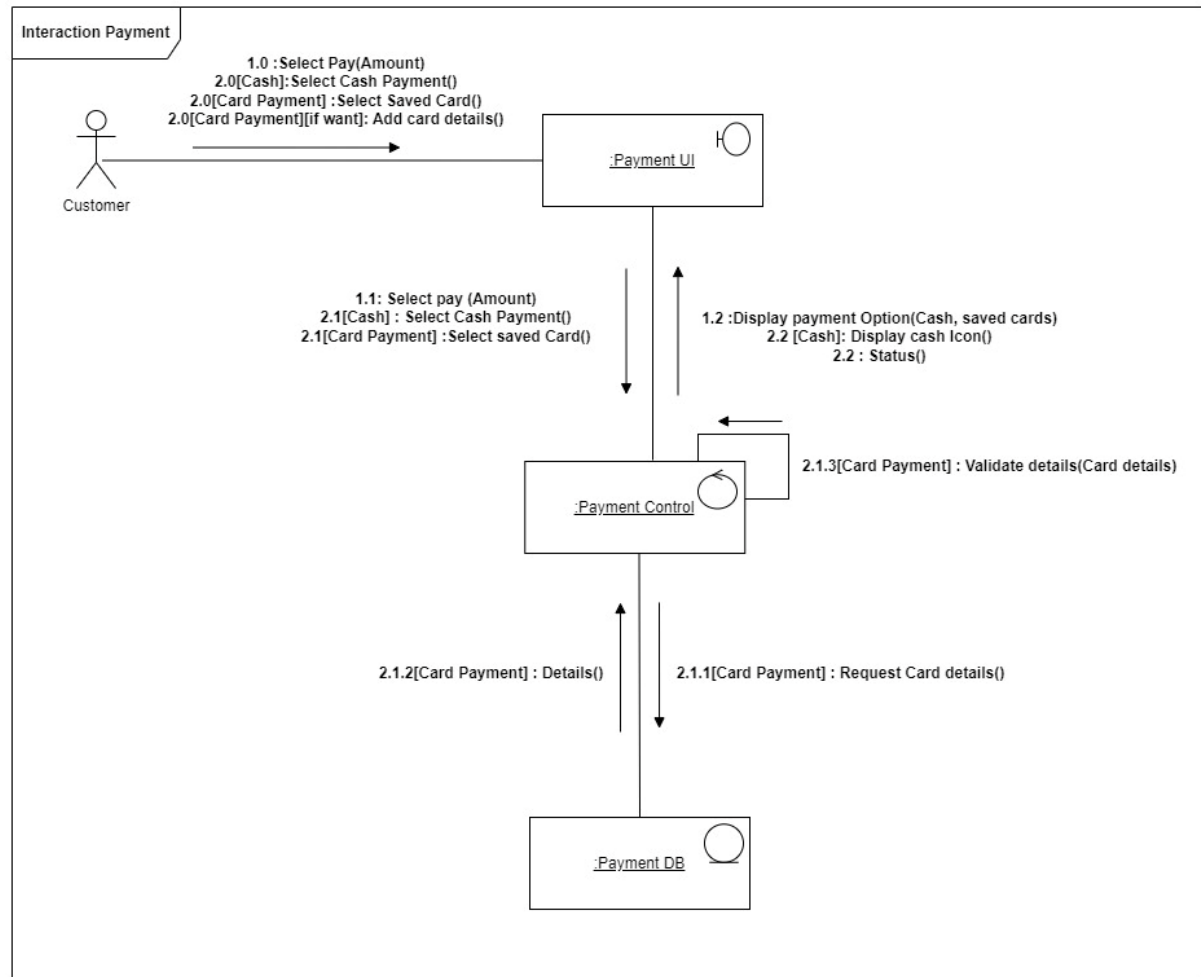
Use case scenario -Payment

Name	Payment	
Summary	Pay for the order	
Priority	4	
Pre-conditions	order must be completed.	
Post-conditions	Payment completed.	
Primary Actors(s)	Customer	
Secondary Actor(s)	-	
Main Scenario	Step	Action
	1	order get confirmed by the customer.
	2	Display the amount to be paid for the order.
	3	Select 'Pay' button and it will direct you to the Payment.
	4	Select a payment method from cash, credit or debit card payment.
	5	If card payment was selected, allow user to select the saved card.
	6	System validates card details
Extensions	Step	Branching action
	4. a	If the customer wants cash payment, he/she should select the 'cash' button.
	5. a	If the user wants to add a new card, select 'add payment method' and fill details

Sequence Diagram – Payment



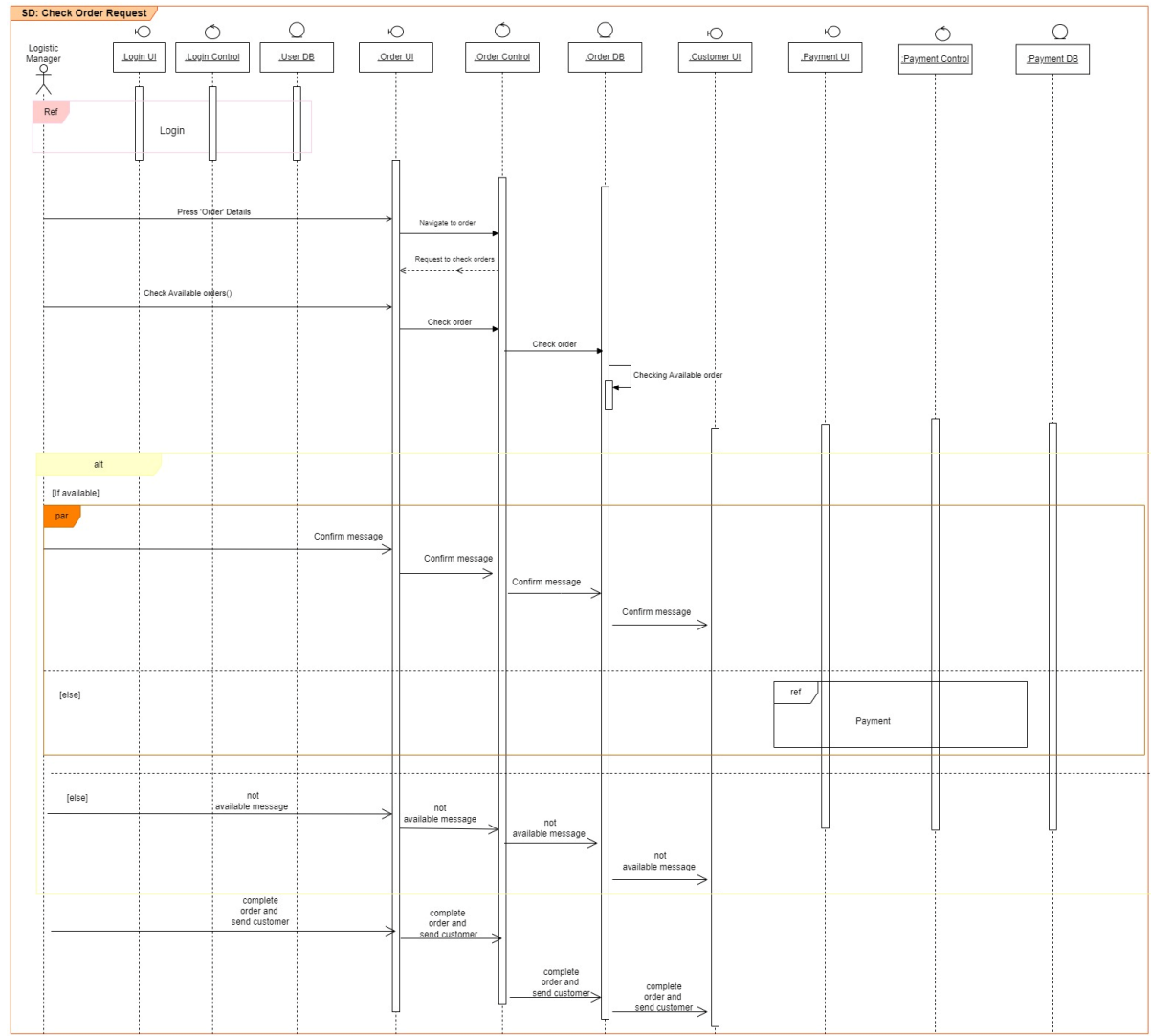
Communication Diagram – Payment



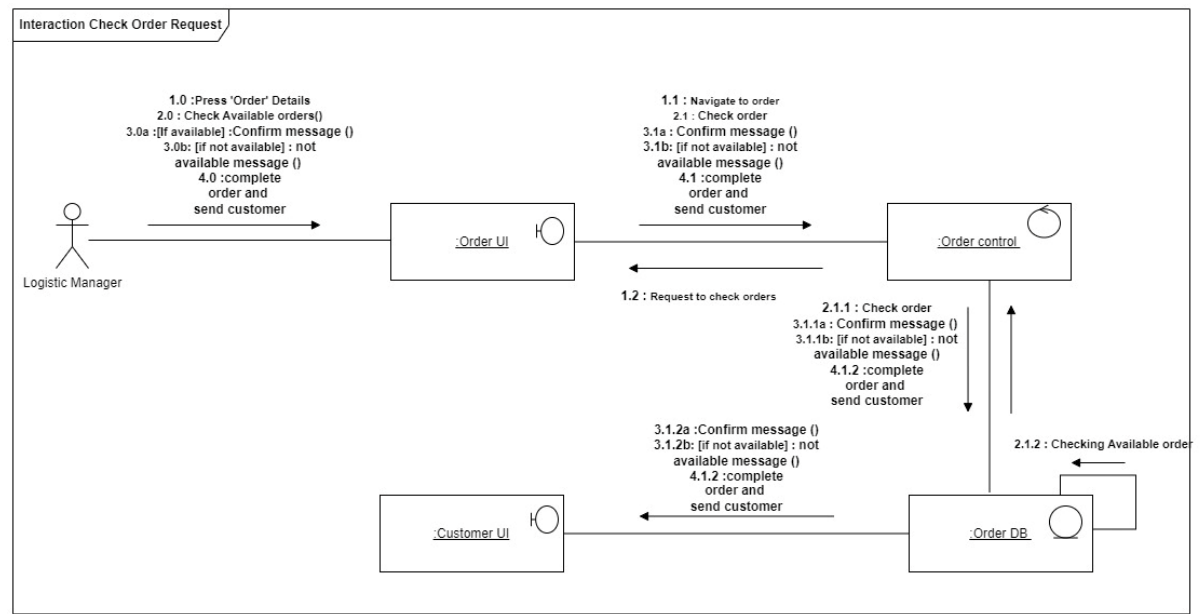
Use case scenario - Check Order request

Name	Check Order request	
Summary	Check Order request	
Priority	8	
Pre-conditions	Logistic Manager has logged to the system.	
Post-conditions	Logistic Manager can check Customer details.	
Primary Actors(s)	Logistic Manager	
Secondary Actor(s)	-	
Main Scenario	Step	Action
	1	Login to the website using credentials.
	2	Go to 'Order' page through the navigation bar
	3	Check Customer Details
	4	System check available orders that customer chosen.
	5	If a available send confirmation message to the customer
	6	If customer order available then system send a notification to the customer as do the payment
	7	If customer does the payemt customer can do a cash or card payment of the amount before send the package
	8	After complete order details and send customer
Extensions	Step	Branching action
	6. a	Display error message if not the order when customer orderd
	7. a	If the customer want cash payment he/she should select 'cash' button.
	7. b	If the card number is incorrect show an invalid error message.

Sequence Diagram – Check Order request



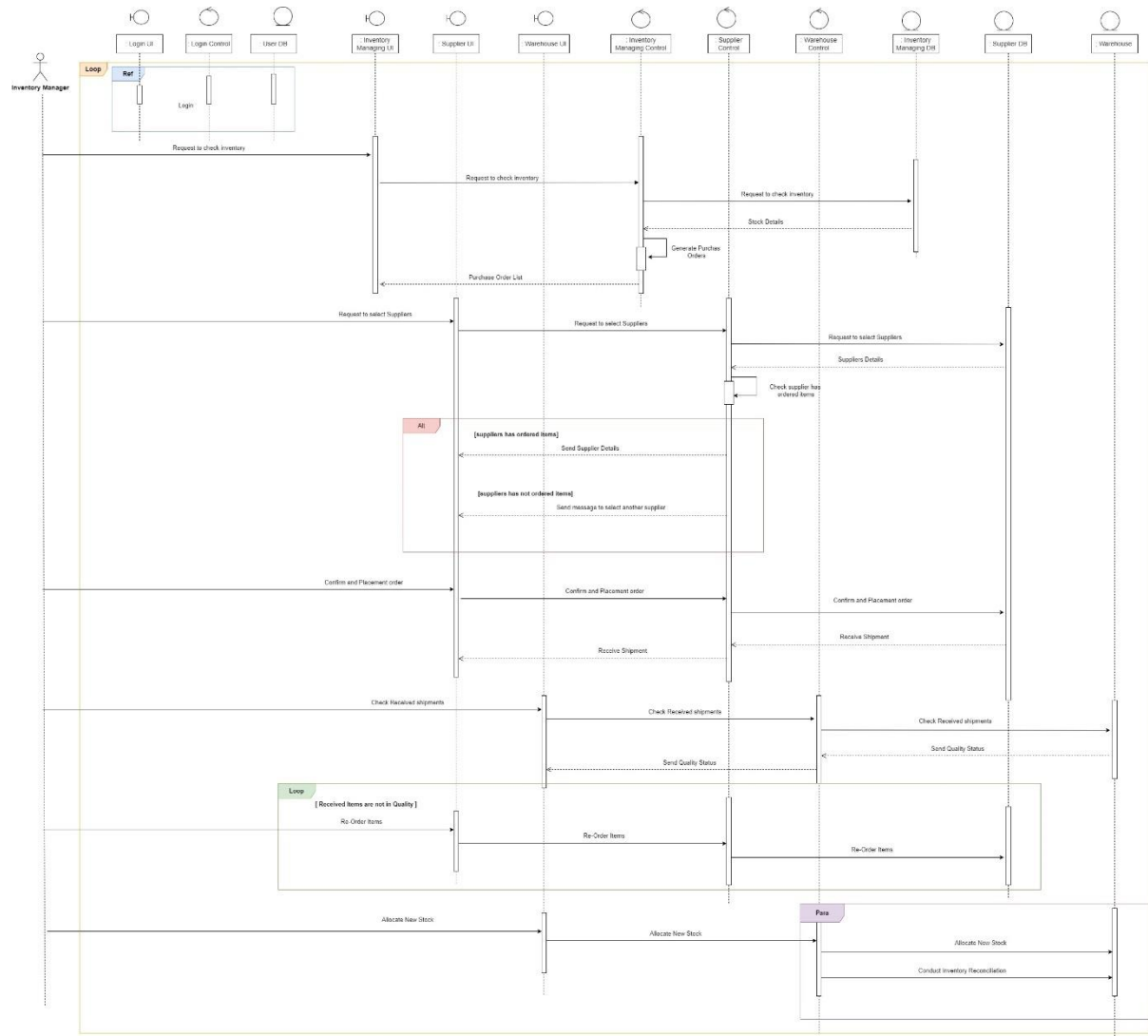
Communication Diagram- Check Order request



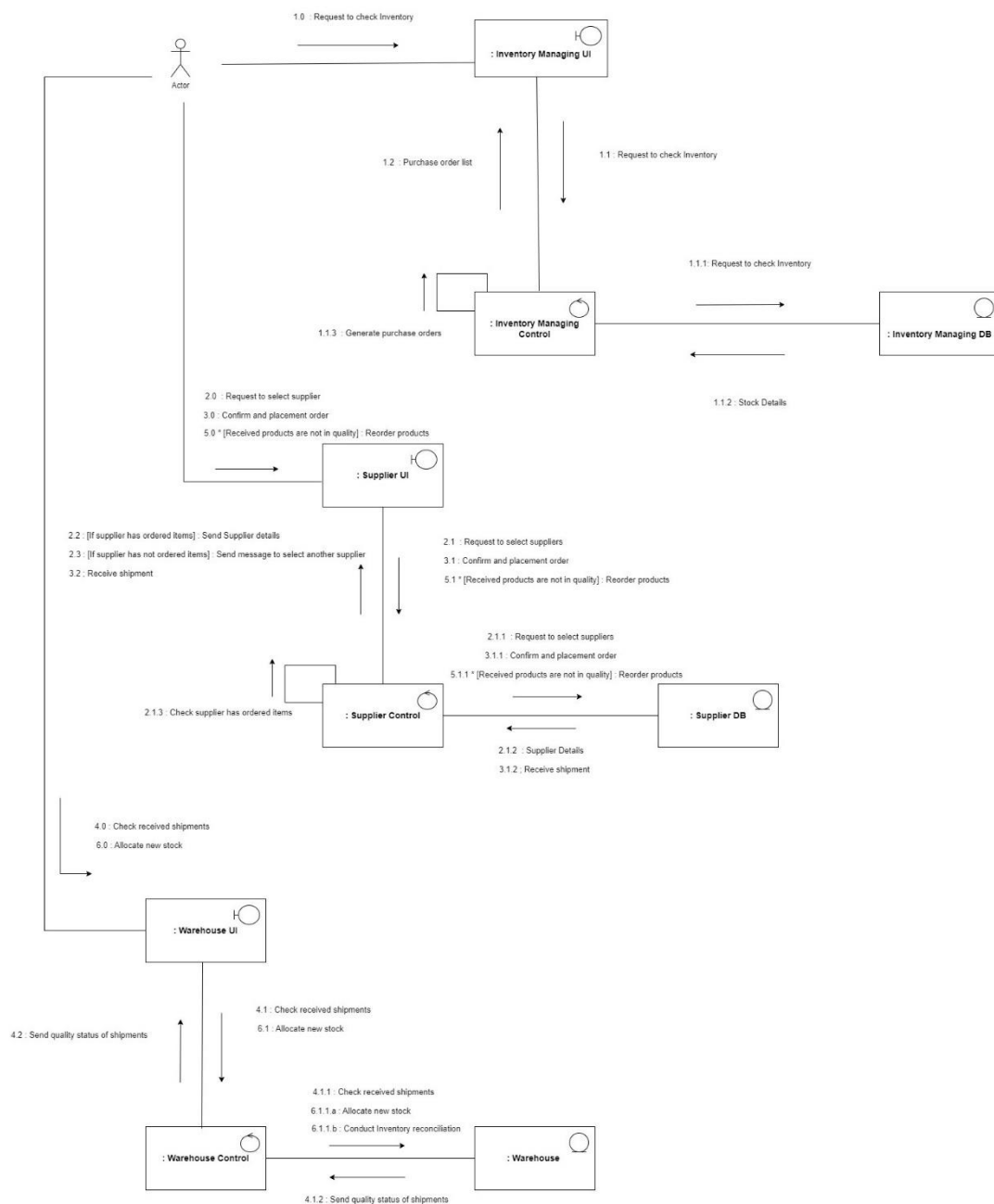
Use case scenario - Inventory Replacement

Name	Inventory Replacement	
Summary	Identify missing items and restock them	
Priority	5	
Pre-conditions	Inventory Manager has monitor current stock level	
Post-conditions	Maintain Inventory	
Primary Actors(s)	Inventory Manager	
Secondary Actor(s)	-	
Main Scenario	Step	Action
	1	Inventory manager check stock levels from Database.
	2	Generate list of purchase orders
	3	Select suppliers to purchase new orders.
	4	Confirm and Placement orders to the suppliers.
	5	Receiving shipments details from suppliers and check whether there are any quality issues
	6	There are no issue with products, allocate new stock in the warehouse
	7	Conduct inventory reconciliation
Extensions	Step	Branching action
	3. a	If the selected supplier hasn't ordered products, ask to select another supplier
	5. a	Received products are not in quality, re-ordering

Sequence Diagram – Inventory Replacement



Communication Diagram- Inventory Replacement



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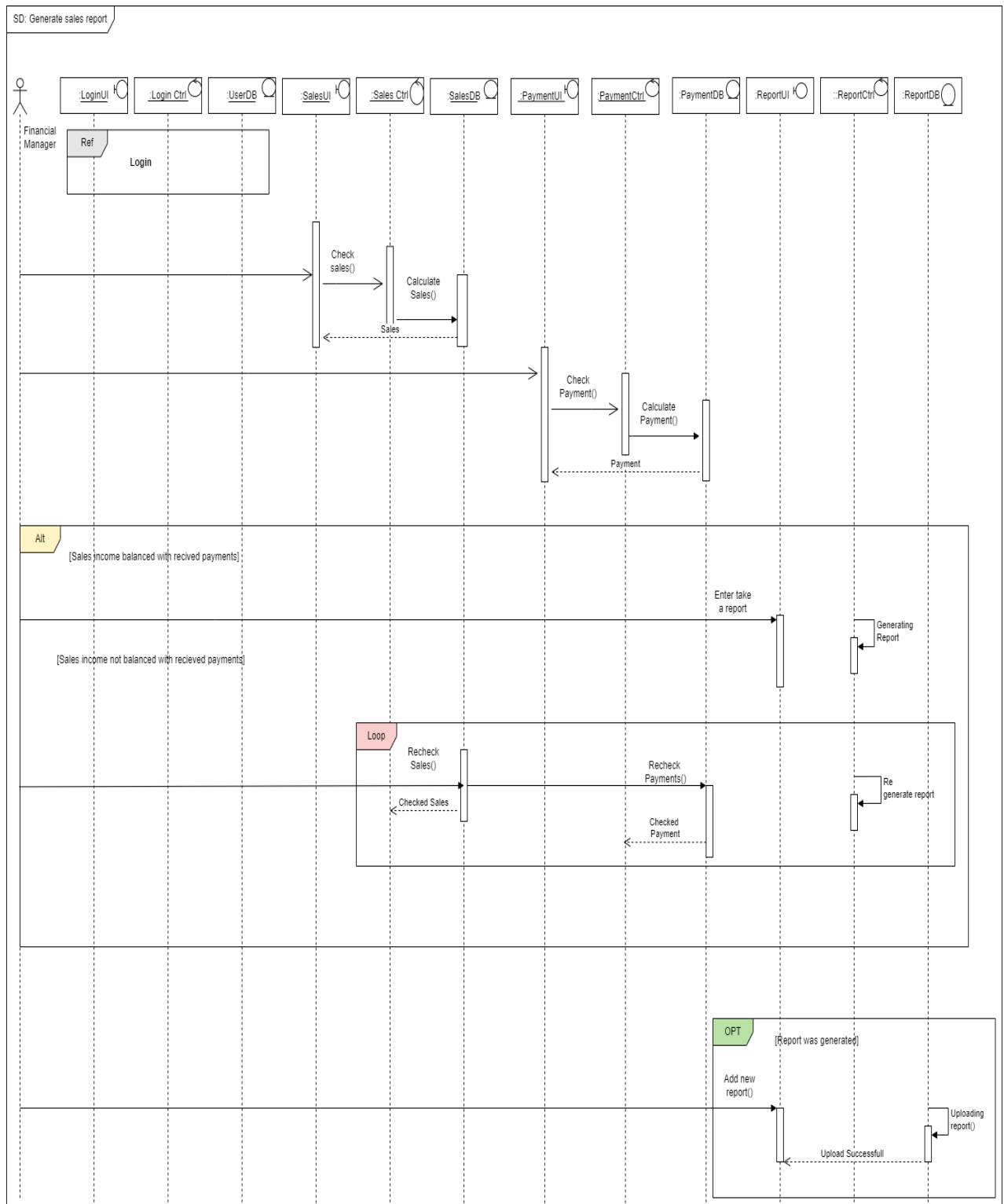
Use case scenario

Generate sales report

Name	Generate sales report	
Summary	Generate report	
Priority	7	
Pre-conditions	Financial manager has logged in to the system	
Post-conditions	Financial manager can create & update sales report by checking sales & received payments	
Primary Actors(s)	Financial Manager	
Secondary Actor(s)	-	
Main Scenario	Step	Action
	1	Financial manager login to the website using credentials.
	2	Go to sales through navigation bar .
	3	Check sales with received payments.
	4	If sales income balanced with received payments press "sales summary "button
	5	If sales income balanced with received payments press "sales summary "button
	6	Then click on "take a report button"
	7	System Displays sales summary
	8	System ask to download report .Then press download button & download report.
	9	Click on report section on navigation bar
	10	Select upload new report button & upload generated report.
Extensions	Step	Branching action
	1. a	If entered wrong login credentials system display error message
	4. a	If sales income not balanced with received payments ,re-check again & re-generate report
	10. a	If sales report uploaded system display successful message

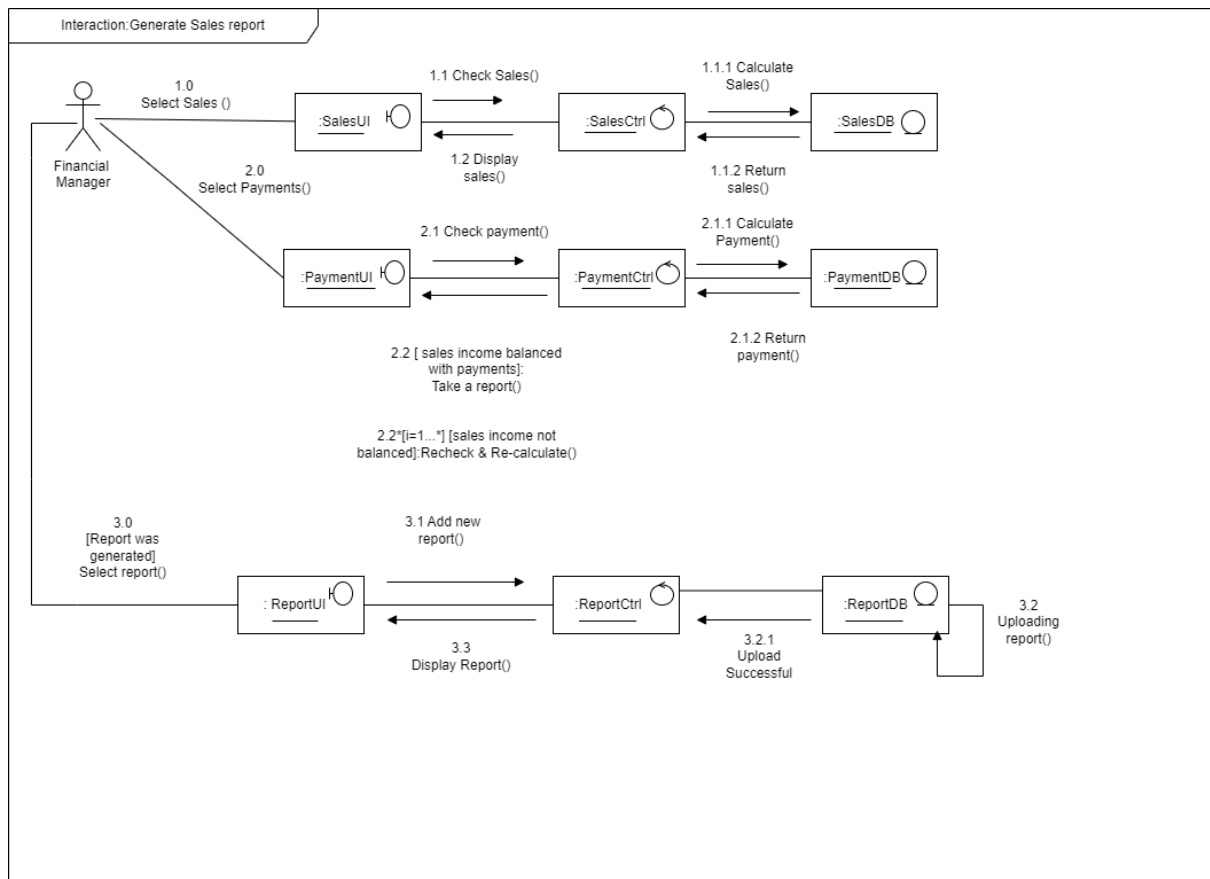
Sequence Diagram

Generate sales report



Communication Diagram

Generate sales report



Registration No.	Name	Function(s)
IT22113122	BANDARA T.C. N	User Login Edit customer profile OTP validation
IT22208576	FERNANDO M.S.V	Check Order request Payment Add card details
IT22138668	PERERA T.M.S	Inventory Replacement
IT22127778	CHAVINDEE M.A.P	Generate sales report