

IT2020 – Software Engineering Year 2, Semester I, 2023 Group Assignment

Online Stock Management System

Group Details

Batch: 7

SE/OOP Group Number: SE/OOP/2023/S2/MLB/WD/G240

	Student Registration Number	Student Name
1	IT22334060	A.C.Kuruppuarachchi
2	IT22916594	D.T.Gunawardana
3	IT22356772	L.B.S.Kaushalya
4	IT22890528	C.I.Wickramasuriya

Table of Contents

Introduction.....	3
High Level Use Case Diagram	4
IT22890528 C.I.Wickramasuriya.....	5
Use Case : Manage Products.....	5
IT22356772 L. B. S. Kaushalya.....	9
Use case : Make Payment	9
IT22334060 A. C. Kuruppuarachchi.....	13
Use case : Generate reports	13
Use case : Login.....	16
IT22916594 D. T. Gunawardana	19
Use case : Review Customer Orders	19
Individual Contribution.....	22

Introduction

Stockflow is the online platform to manage stocks of the "ShopEase" online shopping.

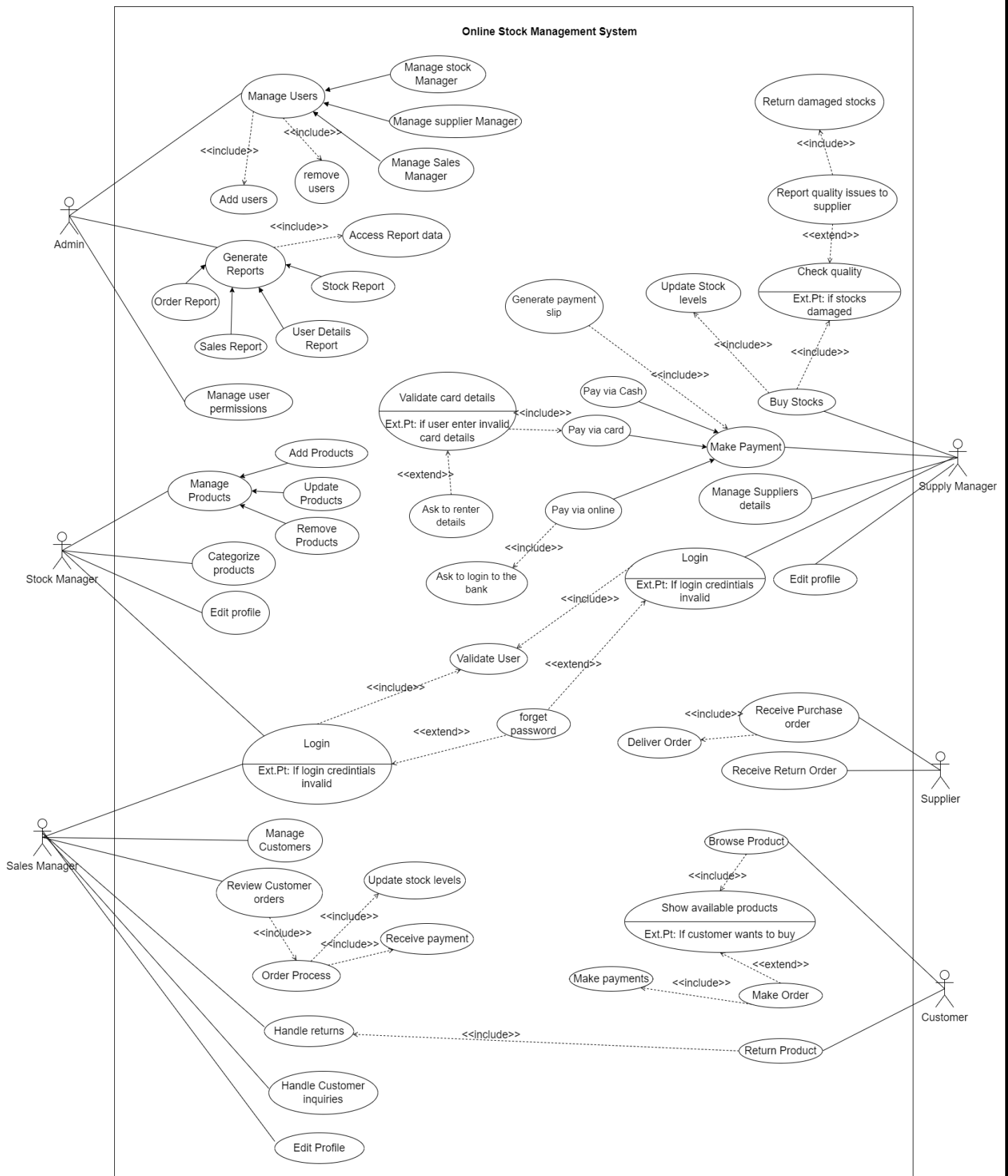
Stockflow provides the ability to manage stocks, buy low stocks and process customer orders and many other facilities. Product manager, Sales manager and Supply manager get their own credentials from the administration to log in to the system.

The product manager is responsible for manager stocks by adding, updating and deleting the stocks. The supply manager can buy the low stock products from the suppliers and check the quality and return. Supply manager can also make payments via credit card, cash or online.

The sales manager processes the order made by the customer and handle returns. The supply manager is updating the stock levels after buying the stocks and sales manager update the stock levels after processing the customer orders. All registered users can edit their profiles.

Customer and Supplier are external actors of the system.

High Level Use Case Diagram



UseCase Diagram

IT22890528 | C.I.Wickramasuriya

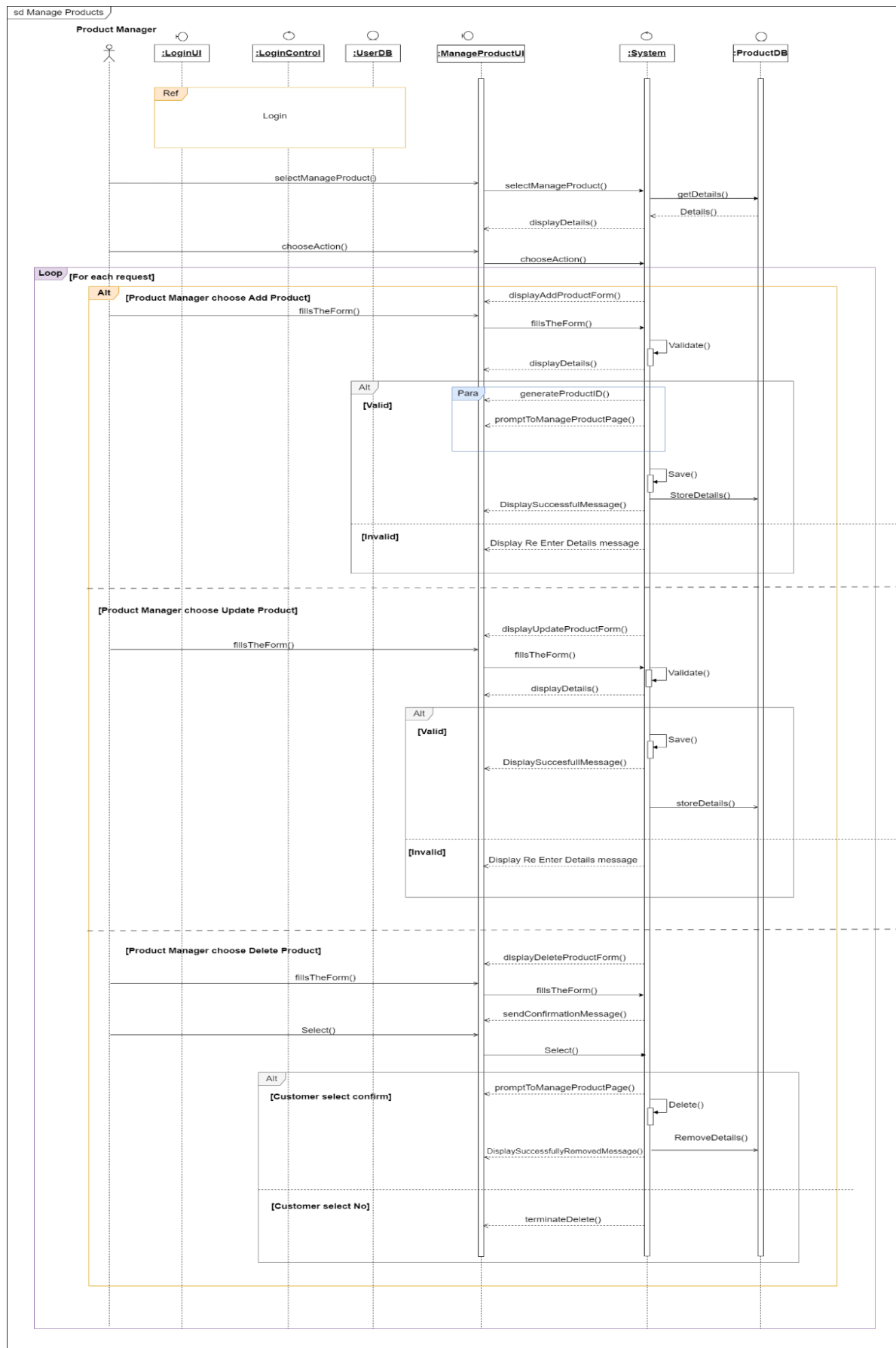
Use Case : Manage Products

Use case scenario

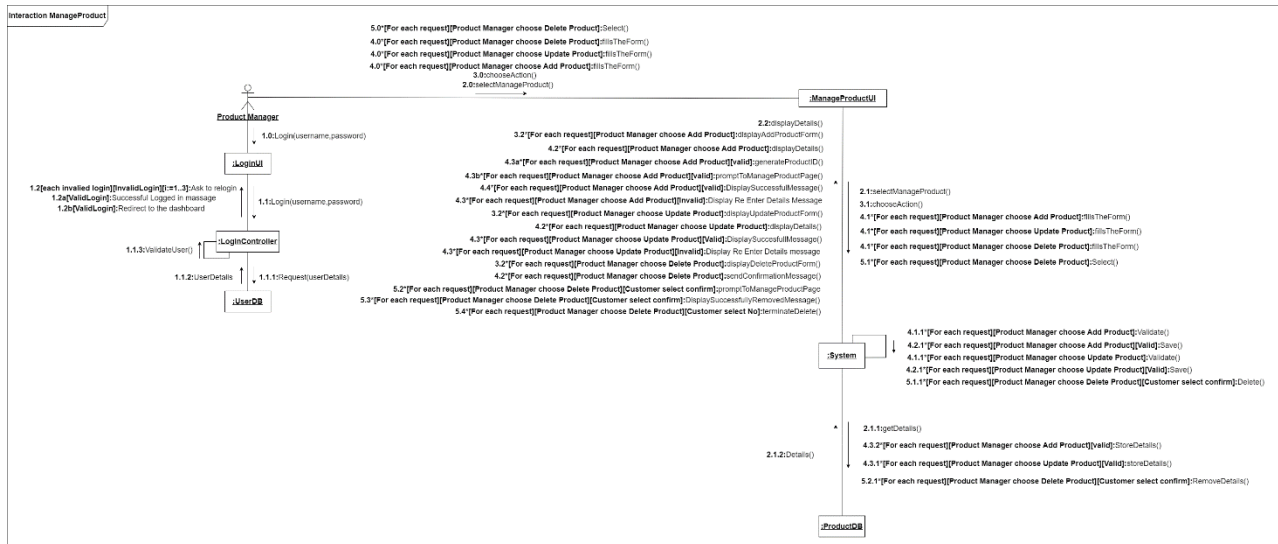
Number	SMS001	
Name	Manages Products	
Summery	Product manager add, update, delete products	
Priority	02	
Pre - Conditions	Product manager should log in to the system	
Post - Conditions	The system successfully add, update or delete products	
Primary Actor	Product Manager	
Secondary Actor	-	
Trigger	Product manager choose to add, update or delete product	
Main Scenario	Step	Action
	1	The product manager is on the home page to login into the system
	2	The system prompts the product manager to enter a username and password
	3	The product manager enters their username and password, clicks on the login button
	4	The system validates product manager credentials
	5	If a valid login displays a “Successfully logged in” message
	6	The product manager navigates to the product manager dashboard.
	7	The product manager selects “manage product”
	8	The system displays Add product, Update product, Delete product list with available product details
	9	Product manager choose the action
	9a.i	If the product manager chooses Add product system display add product form
	9a.ii	The product manager fills out the form
	9a.iii	The system checks all required information had been filled in and the entered data are valid also

	9a.iv	If details are valid, the system generates the product id, and the product manager prompt to the manage product page
	9a.v	The system saves the product details
	9a.vi	The system sends the successfully added message
	9b	If the product manager chooses Update product system displays update product form
	9b.i	The product manager fills out the form
	9b.ii	The system checks all required information had been filled in and the entered data are valid also
	9b.iii	If details are valid, the system saves the product details, and sends the successfully added message
	9c	If the product manager chooses delete product system display delete product form
	9c.i	The product manager fills out the form
	9c.ii	The system sends confirmation message
	9c.iii	If product manager confirms system deletes the product, and the product manager move to the manage product page
	9c.iv	The system sends the successfully removed message
Extensions	Step	Branching Action
	5a	If the username and password are invalid display to reenter the username and password
	9a.vi	If details are invalid, display the “Re Enter details” message
	9b.v	If details are invalid, display the “Re Enter details” message
	9c.vi	If the customer clicks “No” product deletion will be terminated

Sequence Diagram



Communication Diagram



Manage Products Sequence Diagram

Manage Products Communication Diagram

IT22356772 | L. B. S. Kaushalya

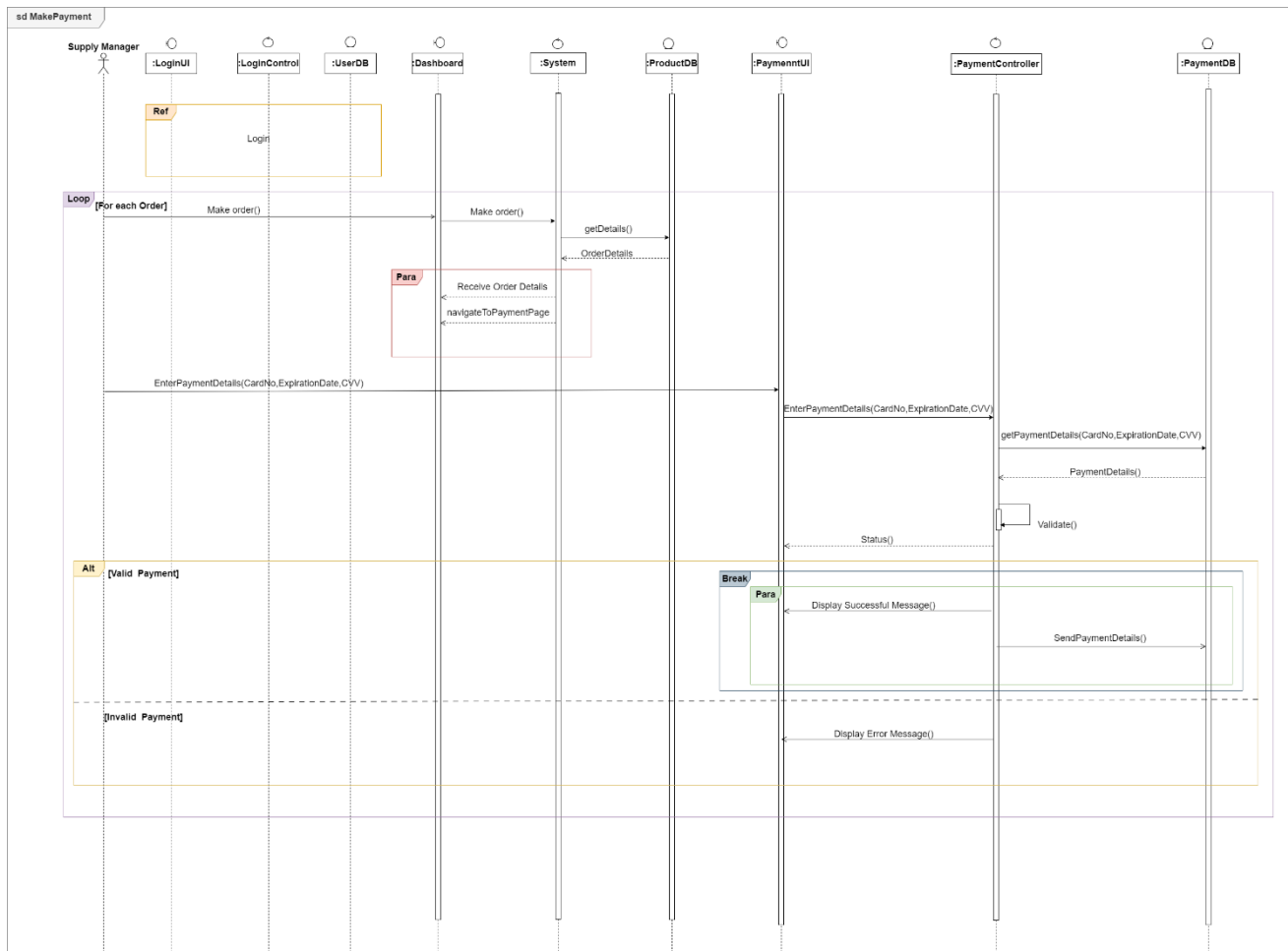
Use case : Make Payment

Use case scenario

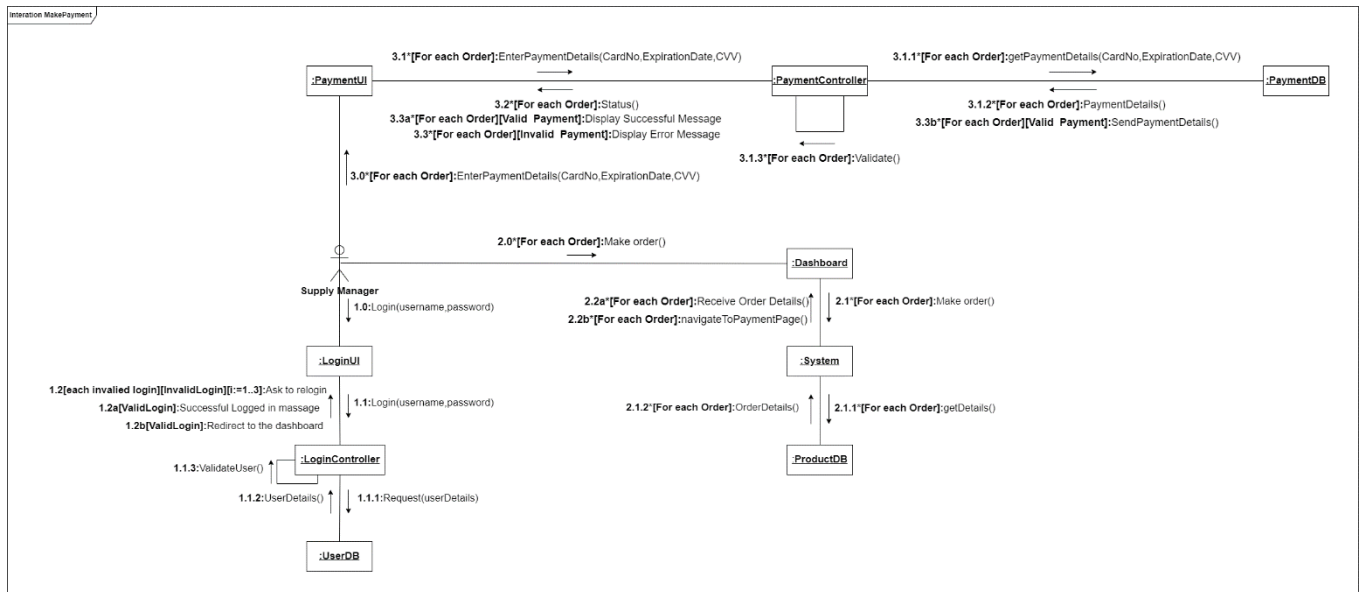
Number	SMS002	
Name	Make a payment	
Summery	Supply manager make payment to buy stocks	
Priority	03	
Pre - Conditions	Supply manager must logged in to the system	
Primary Actor	Supply manager	
Trigger	Supply manager make payments to buy stocks	
Main Scenario	Step	Action
	1	The supply manager is on the home page to login into the system
	2	The system prompts the supply manager to enter a username and password
	3	The supply manager enters their username and password, clicks on the login button
	4	The system validates supply manager credentials
	5	If a valid login displays a “Successfully logged in” message
	6	The supply manager navigates to the supply manager dashboard.
	7	Supply manager make the order
	8	System receives order details and navigate to the Payment page
	9	System displays different payment method options
	10	Supply manager can select his/her preferred payment method
	11	Supply manager enters the payment details
	12	System asks to Supply manager to verify payments
	13	System validates the payment

	14	System makes the payment and display success message
	15	System passes Payment details to the database
	16	Supply manager receives invoice
Extensions	Step	Branching Action
	4a	If the username and password are invalid display to re enter the username and password (maximum up to 3 times including the current attempt).
	12.a	If payment details are invalid system displays error message
	12.b	Customer can re-enter payment details
	13.a	If user payments are unsuccessful due to insufficient balance or other reasons display failure message

Sequence Diagram



Communication Diagram



Make Payment Sequence Diagram

Make Payment Communication diagram

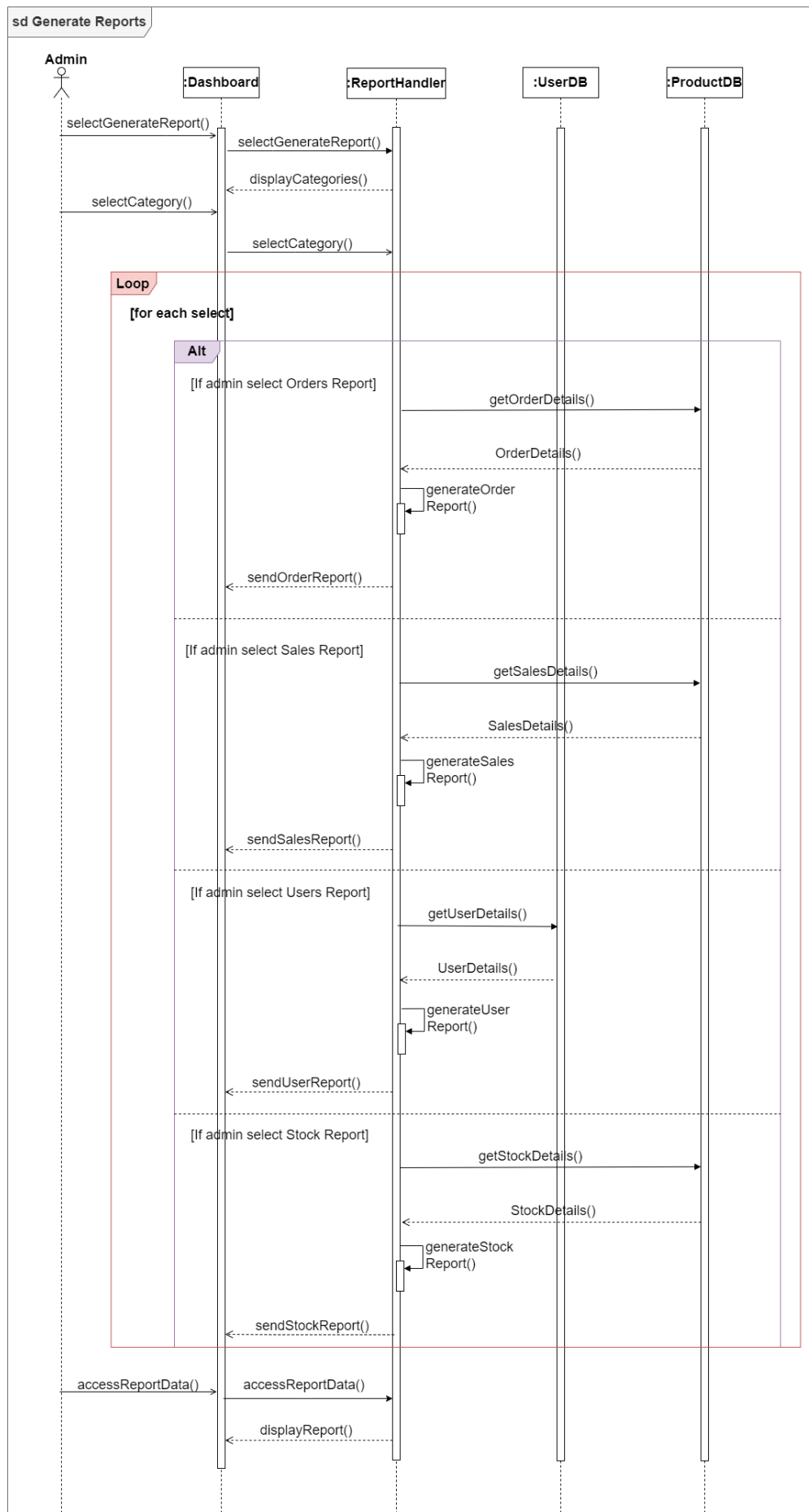
IT22334060 | A. C. Kuruppuarachchi

Use case : Generate reports

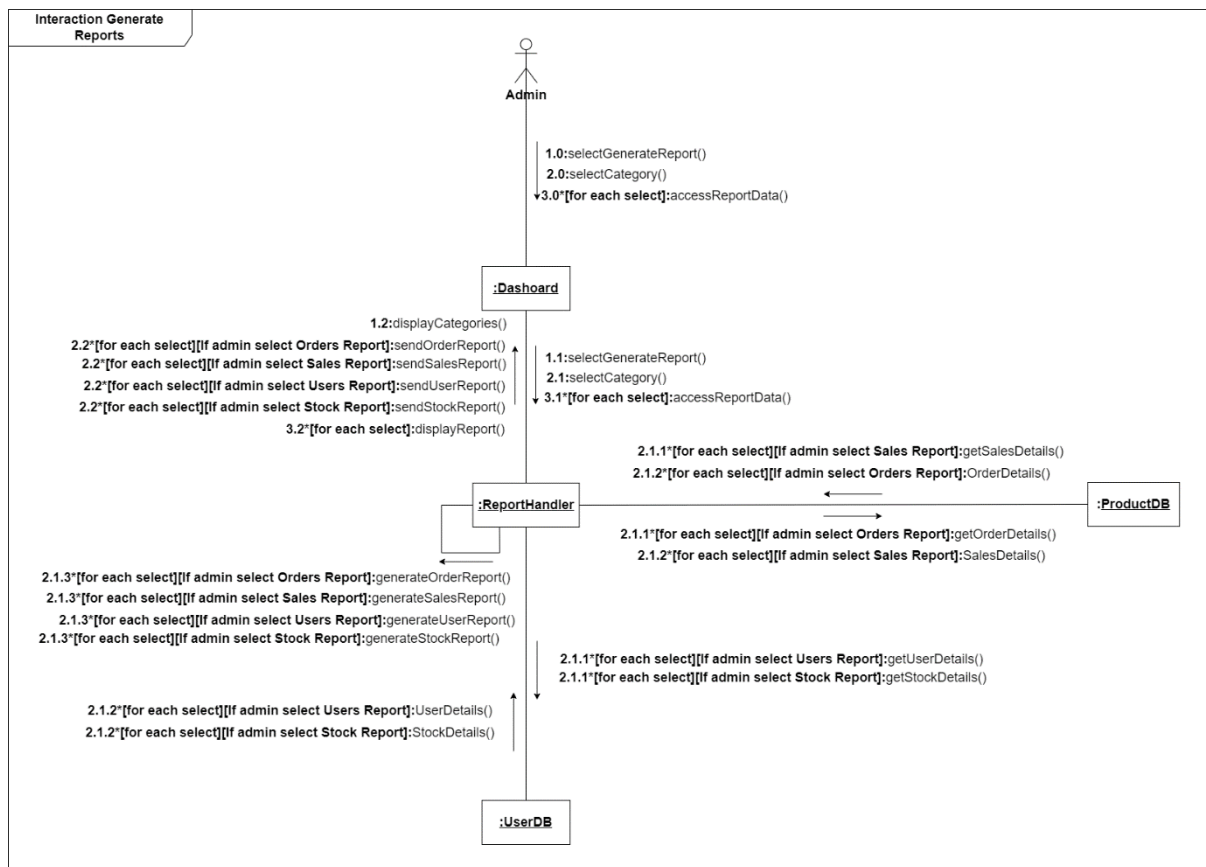
Use case scenario

Number	SMS003	
Name	Generate reports	
Summery	Admin generates reports of the Users, Stocks, Sales and Order	
Priority	05	
Pre – Conditions	Admin is in the admin dashboard	
Post – Conditions	Admin access report data	
Primary Actor	Admin	
Secondary Actor	-	
Main Scenario	Step	Action
	1	Admin visit the website
	2	The system prompts the admin to the admin dashboard
	3	Admin select “generate report”
	4	The system displays report categories
	5	Admin choose category
	5a	If admin selects “Order report” system generate the report of the orders made by the supply manager
	5b	If admin selects “Sales report” system generate the report of the sales made by sales manager
	5c	If admin selects “User details report” system generate the report of the details of the users
	5d	If admin selects “Stock report” system generate the report of the available stocks
	6	Admin access the report data by selecting the generated reports
	7	The system displays report data

Sequence Diagram



Communication Diagram



Generate Report Sequence Diagram

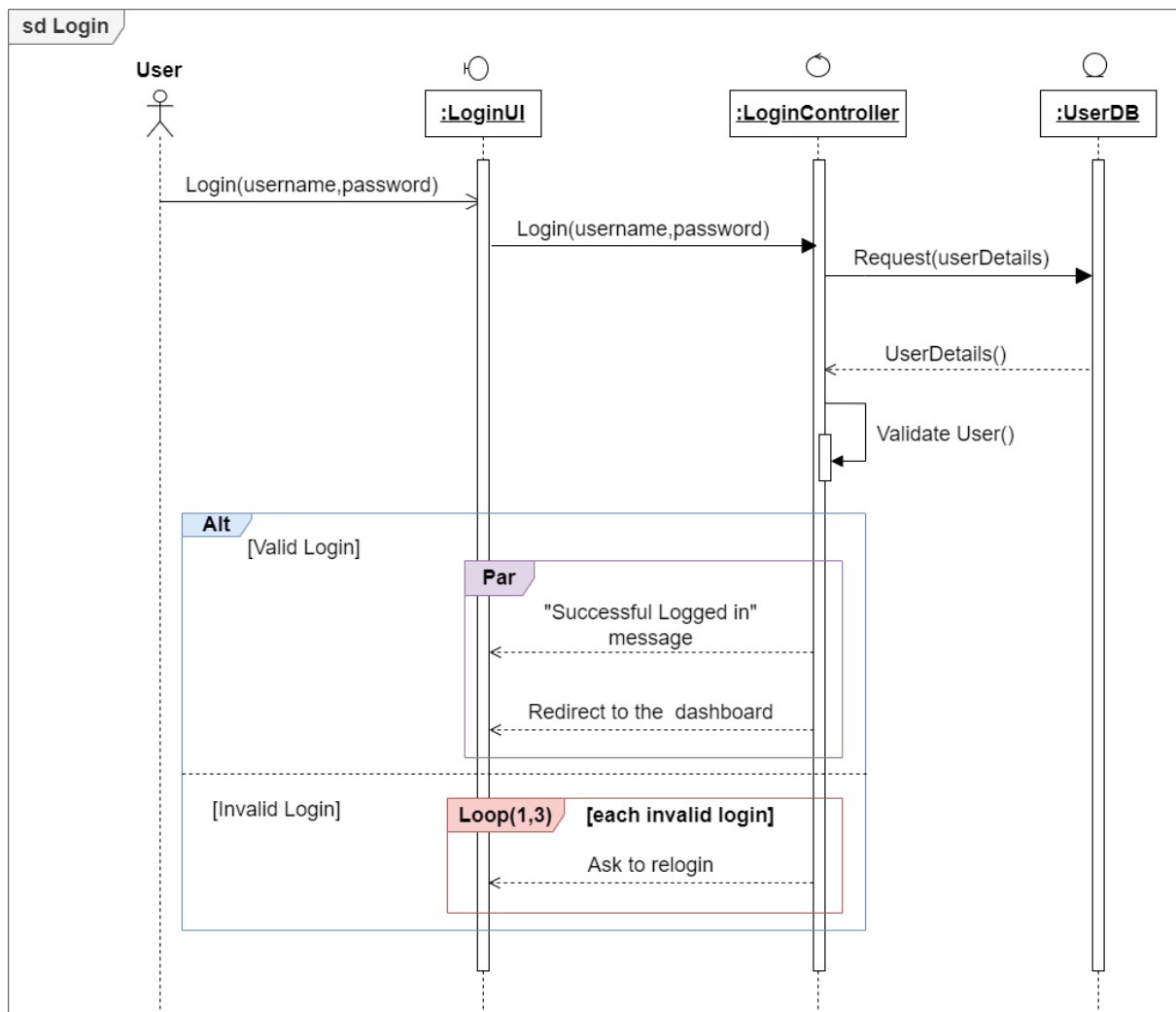
Generate Report Communication Diagram

Use case : Login

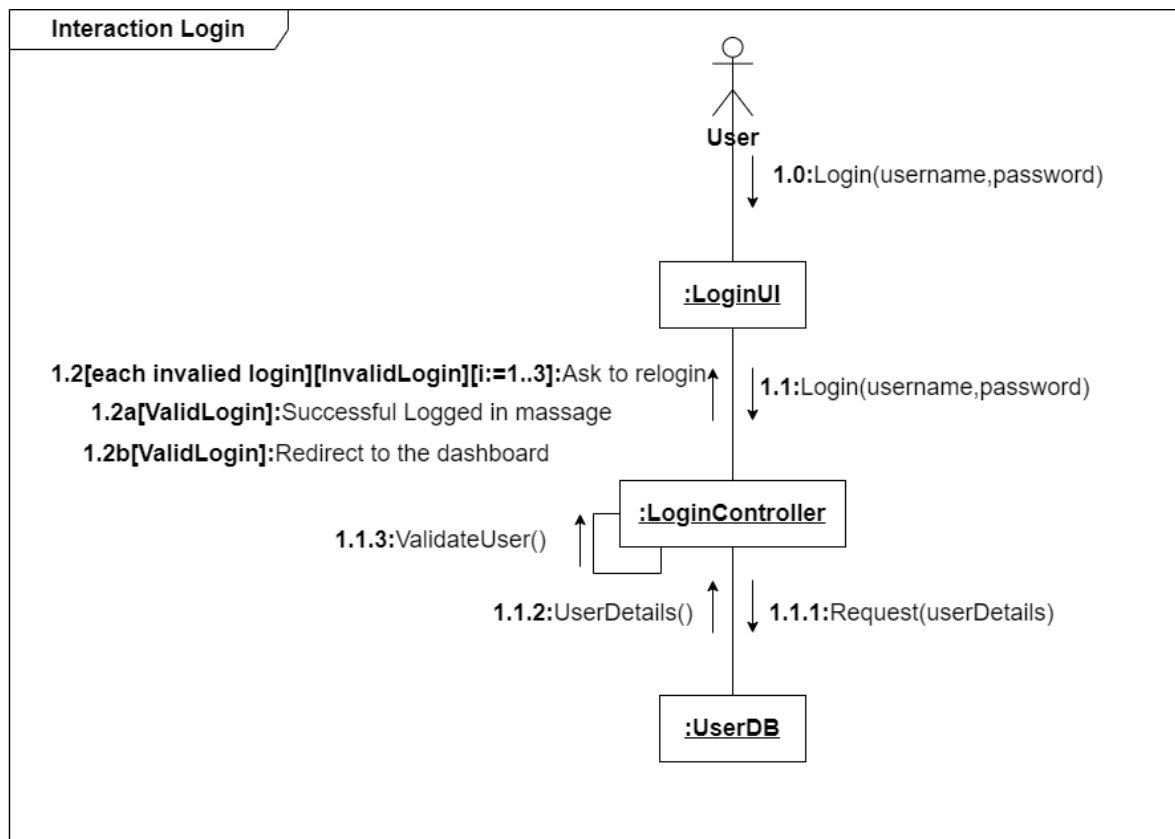
Use case scenario

Number	004	
Name	User login	
Summery	User login to the system	
Priority	01	
Pre - Conditions	The user must be registered with the system	
Post - Conditions	The user can log in to his account	
Primary Actor	Stock manager, Sales manager, Supply manager	
Secondary Actor	-	
Trigger	User choose to login to the system	
Main Scenario	Step	Action
	1	User visit the website
	2	User clicks on login button on home page
	3	The system prompts the user to enter a username and password
	4	The user enters their username and password, clicks on the login button
	5	The system validates user credentials
	6	If a valid login displays a “Successfully logged in” message and prompt to the dashboard
Extensions	Step	Branching Action
	4a	If the username and password are invalid display to re enter the username and password (maximum up to 3 times including the current attempt).

Sequence Diagram



Communication Diagram



[Login sequence diagram](#)

[Login communication diagram](#)

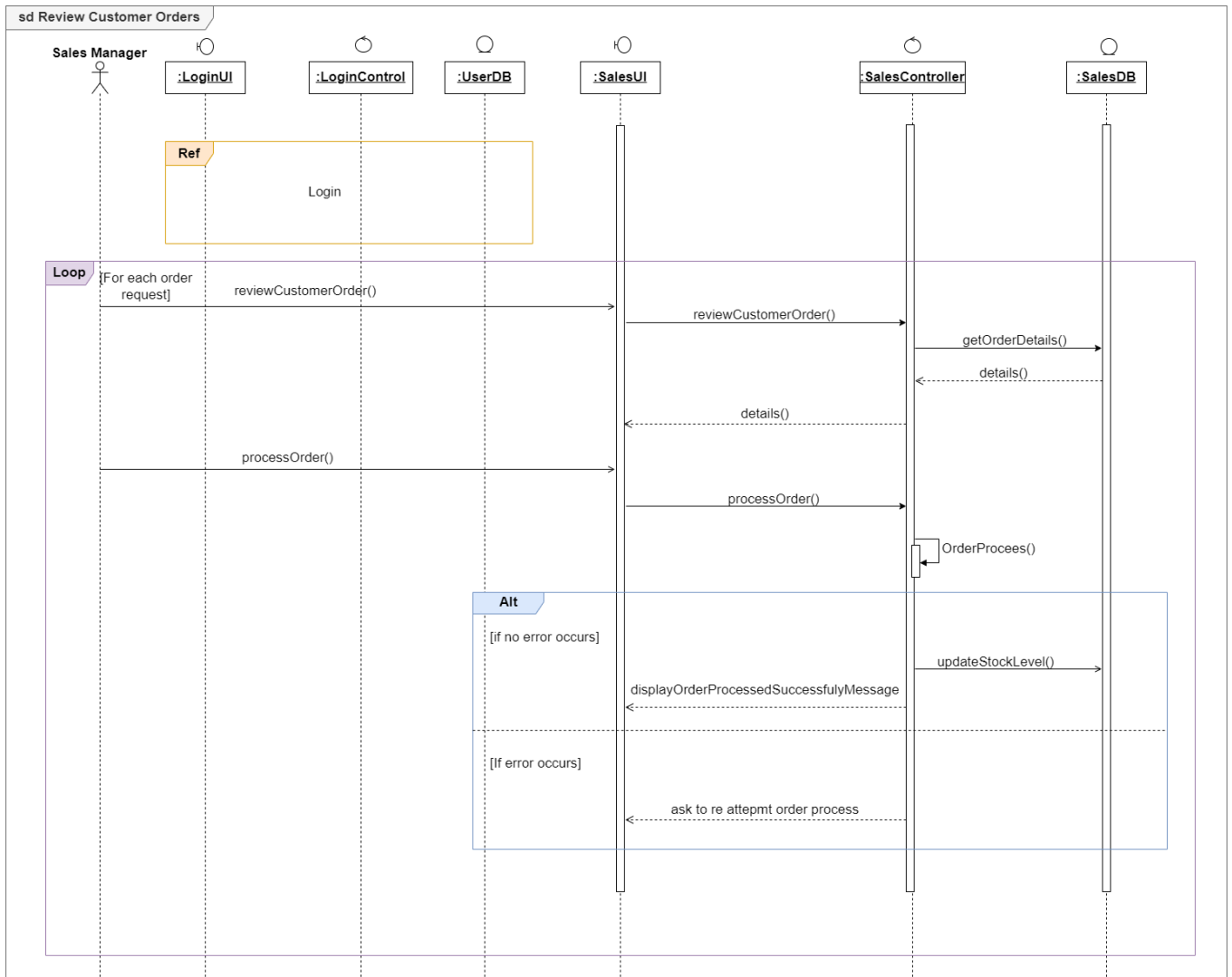
IT22916594 | D. T. Gunawardana

Use case : Review Customer Orders

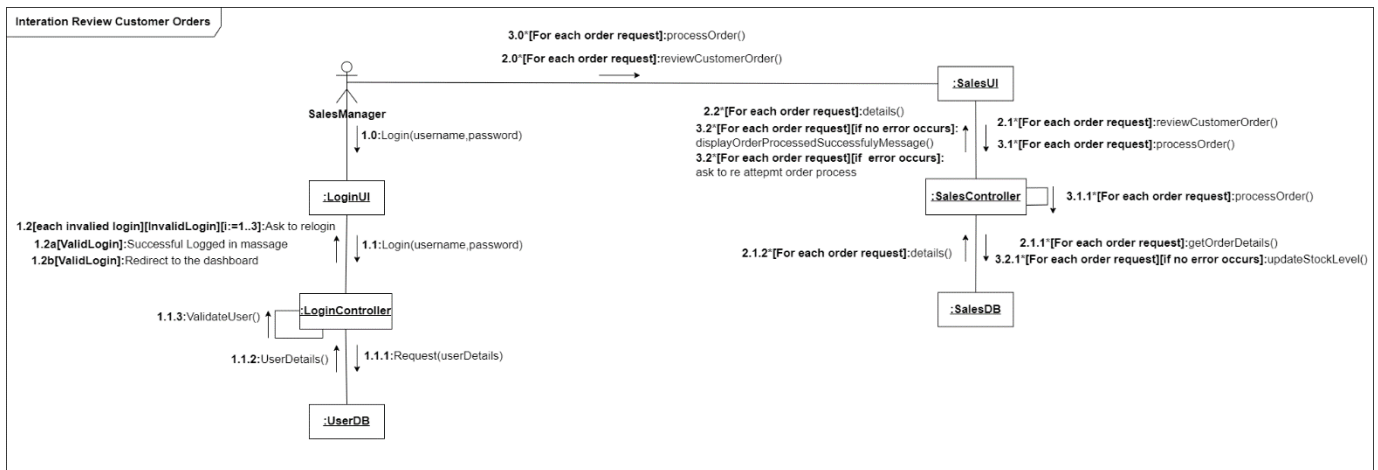
Use case scenario

Number	SMS005	
Name	Review customer orders	
Summery	Sales manager reviews customer orders and process order	
Priority	04	
Pre - Conditions	Sales manager must logged in to the system	
Post - Conditions	Sales manager process the customer order and update the stock levels	
Primary Actor	Sales manager	
Secondary Actor	Customer	
Main Scenario	Step	Action
	1	The sales manager is on the home page to login into the system
	2	The system prompts the sales manager to enter a username and password
	3	The sales manager enters their username and password, clicks on the login button
	4	The system validates sales manager credentials
	5	If a valid login displays a “Successfully logged in” message
	6	The sales manager goes to the “customer orders “section of the dashboard to review the latest customer orders
	7	System displays order details
	8	Sales manger process the order
	9	Sales manager receive the payment
	10	Sales manager updates the stock levels
	11	System displays “Order processed successfully” message
Extensions	Step	Branching Action
	5a	If the username and password are invalid display to re enter the username and password
	8a	If any error occurs while processing system asks to re attempt the order process

Sequence Diagram



Communication Diagram



[Review Customer Order Sequence Diagram](#)

[Review Customer Order Communication Diagram](#)

Individual Contribution

Reg.No	Name	Function name	Remarks
IT22334060	A.C.Kuruppuarachchi	<ul style="list-style-type: none">• Login• Generate Report	-
IT22916594	D.T.Gunawardana	<ul style="list-style-type: none">• Review Customer Orders	-
IT22356772	L.B.S.Kaushalya	<ul style="list-style-type: none">• Make Payment	-
IT22890528	C.I.Wickramasuriya	<ul style="list-style-type: none">• Manage Products	-