E-Commerce Business

A website for an e-commerce business, including features such as product listing, a shopping cart, wishlist, secure payment processing, user accounts, and order management status, coupons/discounts, product filter/sorting, various categories also data security and privacy of customers moreover there is an option for Customer Reviews and Ratings which increases the trust between customers and sellers. One more feature is a chatbot for general problems if it is needed it transfers you to live support agent. Also importing products from other e-commerce businesses such as Amazon, Ebay, Etsy, Allegro to our business that’s a benefit that we want to provide to seller profiles.

Name	Description
Function name	Customer Login
Description	Customer need exist login and password account
Input data	Valid user login and password
Source of input data	Keyboard
Result of function	Customer have access to website making shopping
Requirements	Email and password
Purpose	User to login website
Initial condition	User have to provide login and password for access website
Final condition	Customer will be able to making shopping and etc thing on website
Side effects	none
Reason	Customer need access website to make shopping or etc.

Name	Description
Function name	Customer Service (ChatBot)
Description	ChatBot is a AI bot , it helping to people for general question and problems if bot doesn't enough for problem it direct you to live customer service
Input data	AI Technology
Source of input data	AI
Result of function	Helping for general problems in website and anwsering questions for people who have problem
Requirements	AI bot (we can provide by ourself coding bot or we can buy on websites)
Purpose	To help customer to solve their problem easily and more quickly
Initial condition	If you need to help on website you have to click AI Bot and ask for what you need help for
Final condition	Bot will solve your problem even though it didn't get done by bot , it will direct you to live customer service
Side effects	None

Name	Description
Function name	Search Bar
Description	with the dedicated function of accepting user input to be searched or in a database
Input data	the input data for the search bar is the text entered by the user
Source of input data	It could be a text input box to get the text entered by the user
Result of function	People can make search on website more effectively
Requirements	Input button and sumbit button , search function
Purpose	People will reached to things easily
Initial condition	The search bar appears as an empty text input box
Final condition	When the user clicks on the search bar placeholder text disappears allowing the user to input their search query.
Side effects	Possible wrong outcomes
Reason	Help to people find things easily on website

Name	Description
Function name	Saving Card Details on website for next shopping
Description	Adding your card details on website for using shopping easily
Input data	Cart Details (Name, Surname , CVV , Card Number , MM/YY)
Source of input data	User Provide Card Information
Result of function	Card has been saved on website for next shopping
Requirements	Only authorized users should have access to save or manage card information.
Purpose	Saving the card details on website database
Initial condition	Card details entered on website
Final condition	Clicking the save button after the card details given
Side effects	None
Reason	Saving user card next shopping

Name	Description
Function name	Add to Cart
Description	This function allows a user to add a product to their cart
Input data	Product information (product name, price, stock status, etc.)
Source of input data	Product information can be retrieved from a database
Result of function	If the operation is successful, the product is added to the user's cart.
Requirements	Validation of the validity of product and user information.
Purpose	To enable users to add the selected product to their cart for purchase and enhance the shopping experience
Initial condition	The user must have selected a product
Final condition	If successful, the cart should be updated
Side effects	The stock status of the product can be change after it is added to the cart

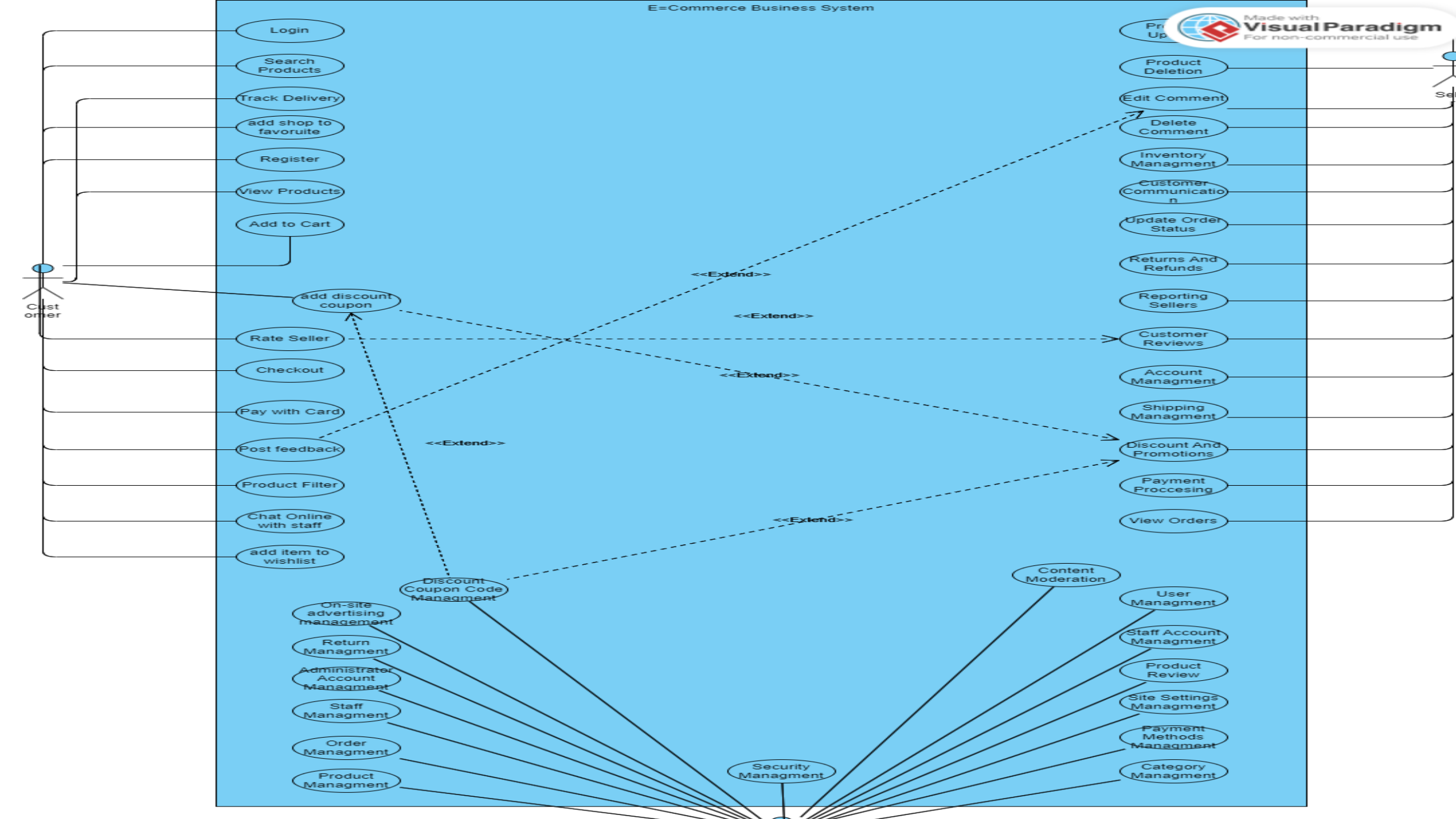
Name	Description
Function name	Coupon/discount
Description	This function allows a user to apply a coupon or discount code.
Input data	Coupon/discount code
Source of input data	The coupon/discount code can be obtained from the user or from a database.
Result of function	If the coupon is valid, the discount is applied to the cart.
Requirements	Validation of the coupon's validity.
Purpose	To enable users to benefit from discounts during their shopping and improve the shopping experience.
Initial condition	The user must have entered a coupon or discount code.
Final condition	If successfully applied, the cart should be updated.
Side effects	The discount applied to the cart may alter the total amount.
Purpose	This function allows users to benefit from discounts during their shopping, making the

Name	Description
Function name	Product Filter
Description	This function allows the user to filter products based on specific criteria.
Input data	Filter criteria (e.g., category, price range, brand, etc.)
Source of input data	The product list is typically retrieved from a database or an external source.
Result of function	A list of products that match the user-defined criteria is returned.
Requirements	Accurate generation of database queries.
Purpose	To facilitate the user in finding products of interest and enhance the shopping experience.
Initial condition	The user must have specified filter criteria.
Final condition	After filtering, the function should return a list of products that match the user's criteria.
Side effects	-

Name	Description
Function name	Wishlist
Description	This function allows users to add desired products to a wishlist and manage them.
Input data	Product information (product name, price, unique identifier, etc.)
Source of input data	Product information is usually retrieved from a database.
Result of function	The user-requested products are added to a wishlist, and feedback is provided to the user.
Requirements	Secure storage and management of product and user information.
Purpose	To enable users to track desired products and personalize the shopping experience.
Initial condition	The user should add desired products to the wishlist
Final condition	The wishlist should be editable and updatable by the user.

Name	Description
Function name	Data Security & Privacy
Description	This function implements the necessary measures to ensure the security and privacy of user data
Input data	Sensitive data (credit card information, addresses, etc.)
Source of input data	Sensitive data is provided by the user or collected during payment transactions (payment page, order processing page, etc.)
Result of function	Sensitive data is encrypted and protected using secure communication protocols.
Requirements	Use of appropriate infrastructure and protocols to securely store and process user data
Purpose	To provide a reliable platform by ensuring the security of user data and gaining their trust
Initial condition	Sensitive data is provided during payment transactions or profile updates.
Final condition	Sensitive data is encrypted and protected
Side effects	Additional costs may be required for the security of

Name	Description
Function name	Product Details
Description	This function allows the user to obtain detailed information about a specific product
Input data	Product ID or name
Source of input data	Product information is usually retrieved from a database
Result of function	Detailed information about the requested product is provided to the user
Requirements	Secure storage and management of product information
Purpose	To enable the user to obtain detailed information about a specific product and support their purchasing decision
Initial condition	The product ID or name must be provided
Final condition	The user should receive detailed information about the requested product
Side effects	-


E=Commerce Business System
Login
Search Products
Track Delivery
add shop to favoruite
Register
View Products
Add to Cart
Cust omer
add discount coupon
Rate Seller
Checkout
Pay with Card
Post feedback
Product Filter
Chat Online with staff
add item to wishlist
Discount Coupon Code Managment
On-site advertising management
Return Managment
Administrator Account Managment
Staff Managment
Order Managment
Product Managment
Security Managment
Content Moderation
User Managment
Staff Account Managment
Product Review
Site Settings Managment
Payment Methods Managment
Category Managment
Product Deletion
Edit Comment
Delete Comment
Inventory Managment
Customer Communicatio n
Update Order Status
Returns And Refunds
Reporting Sellers
Customer Reviews
Account Managment
Shipping Managment
Discount And Promotions
Payment Proccesing
View Orders
<<Extend>>
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E Commerce Business System Use Case Diagrams 2

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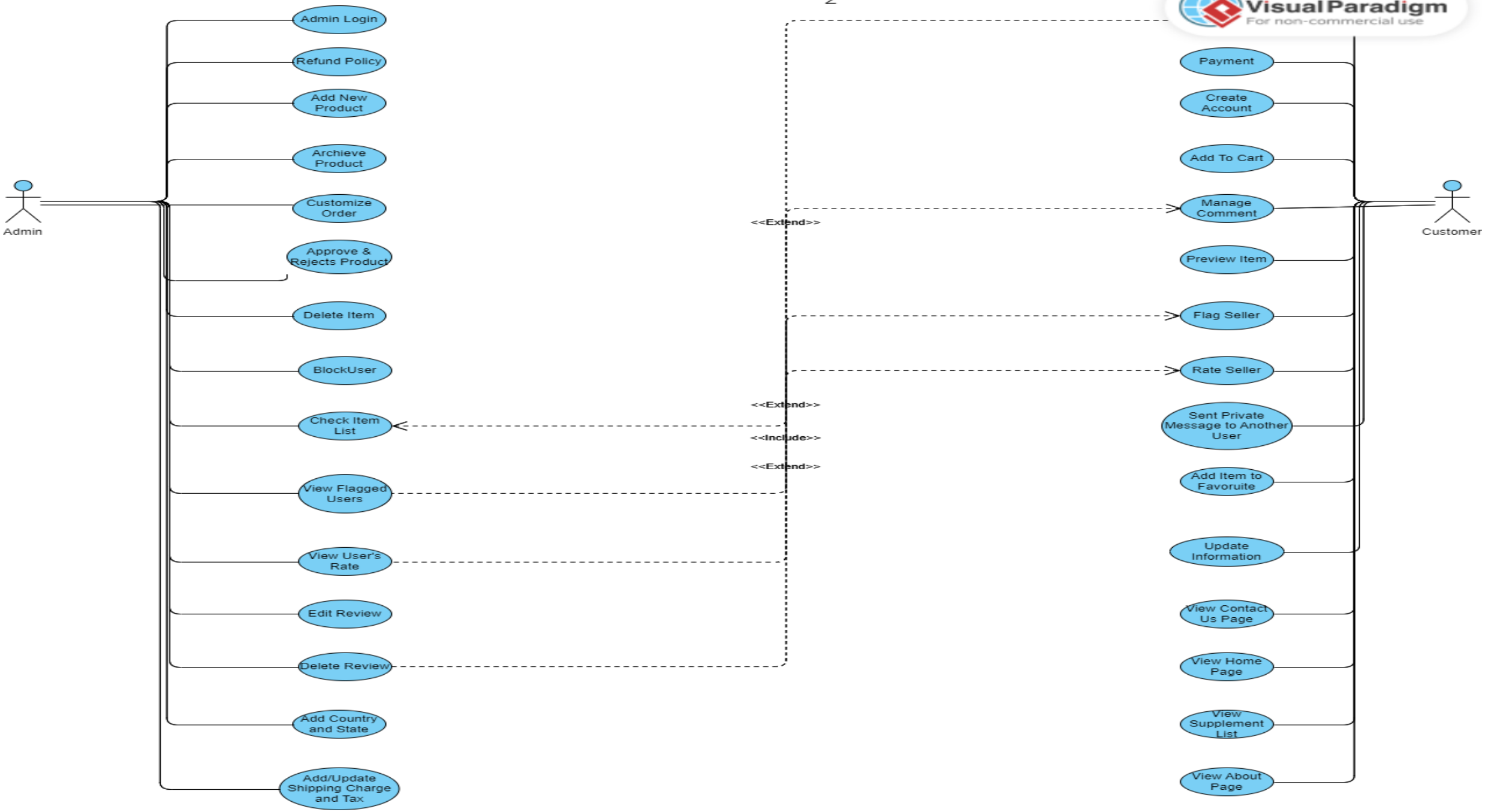

E Commerce Business System Use Case Diagrams

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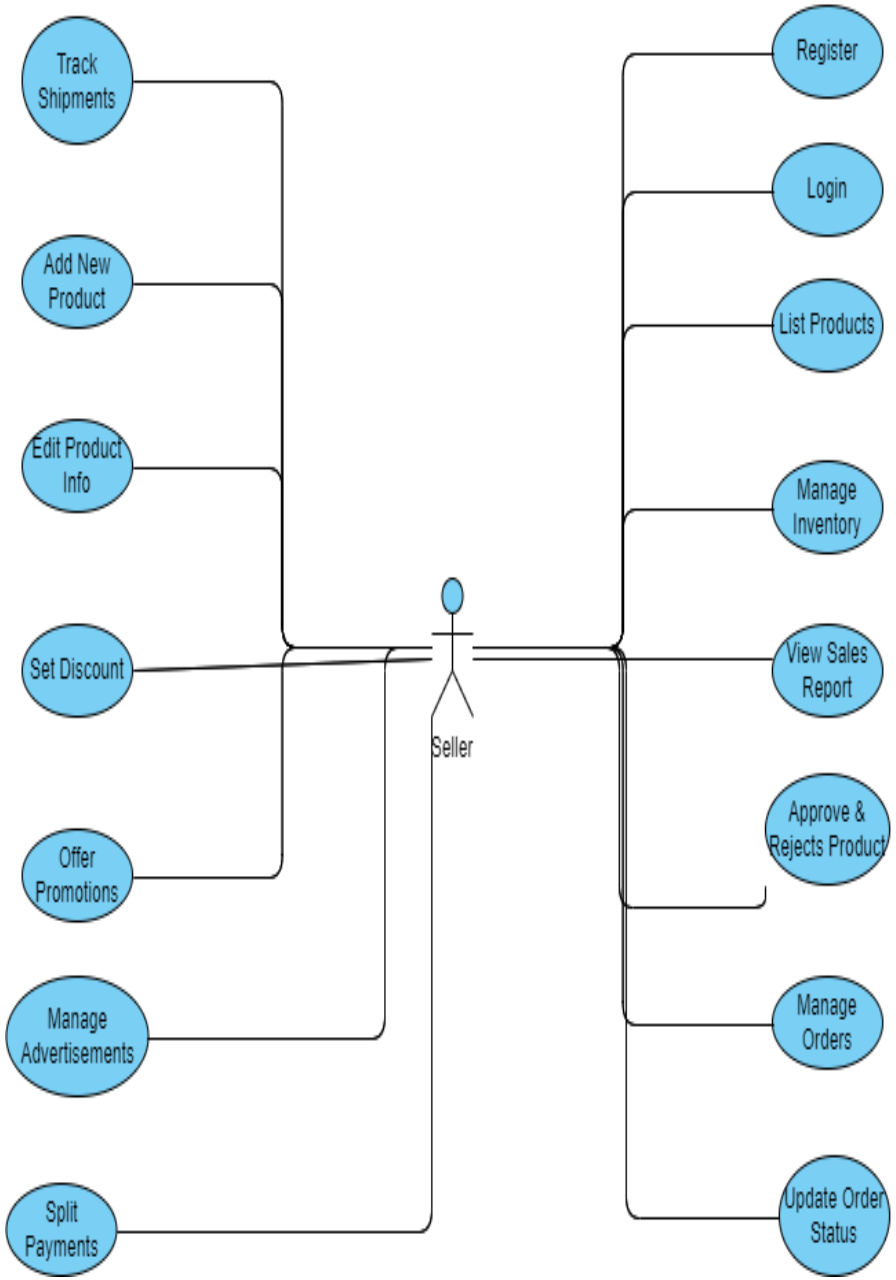

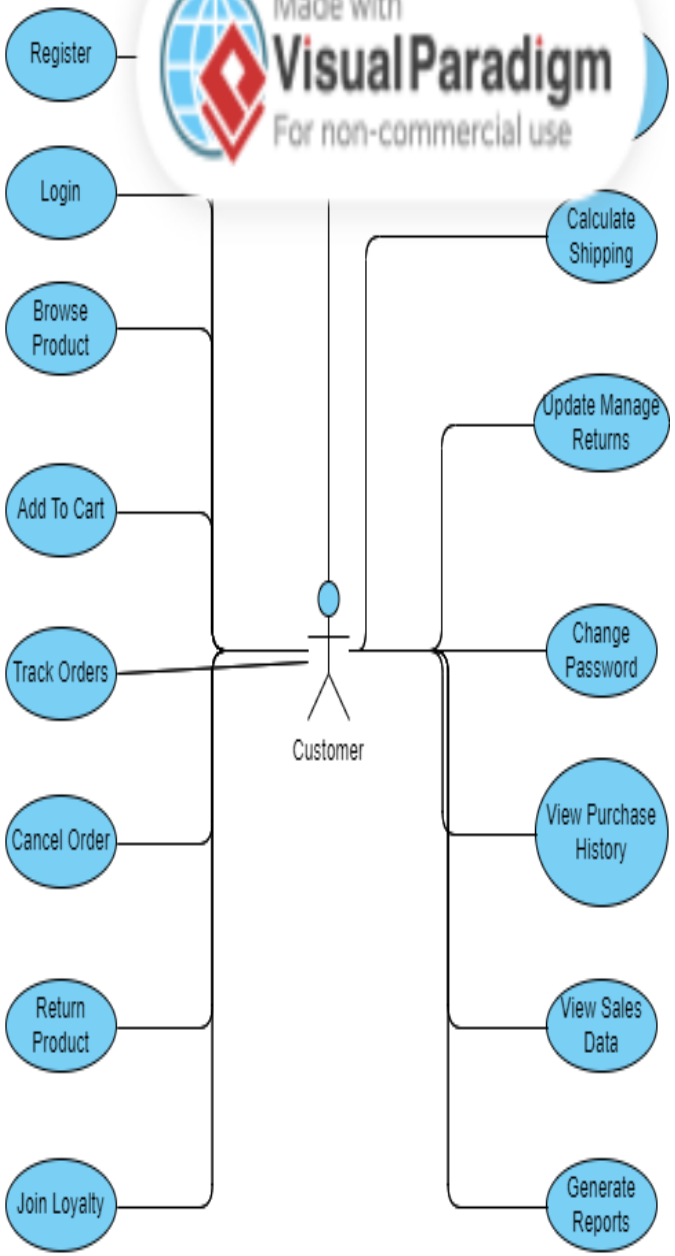

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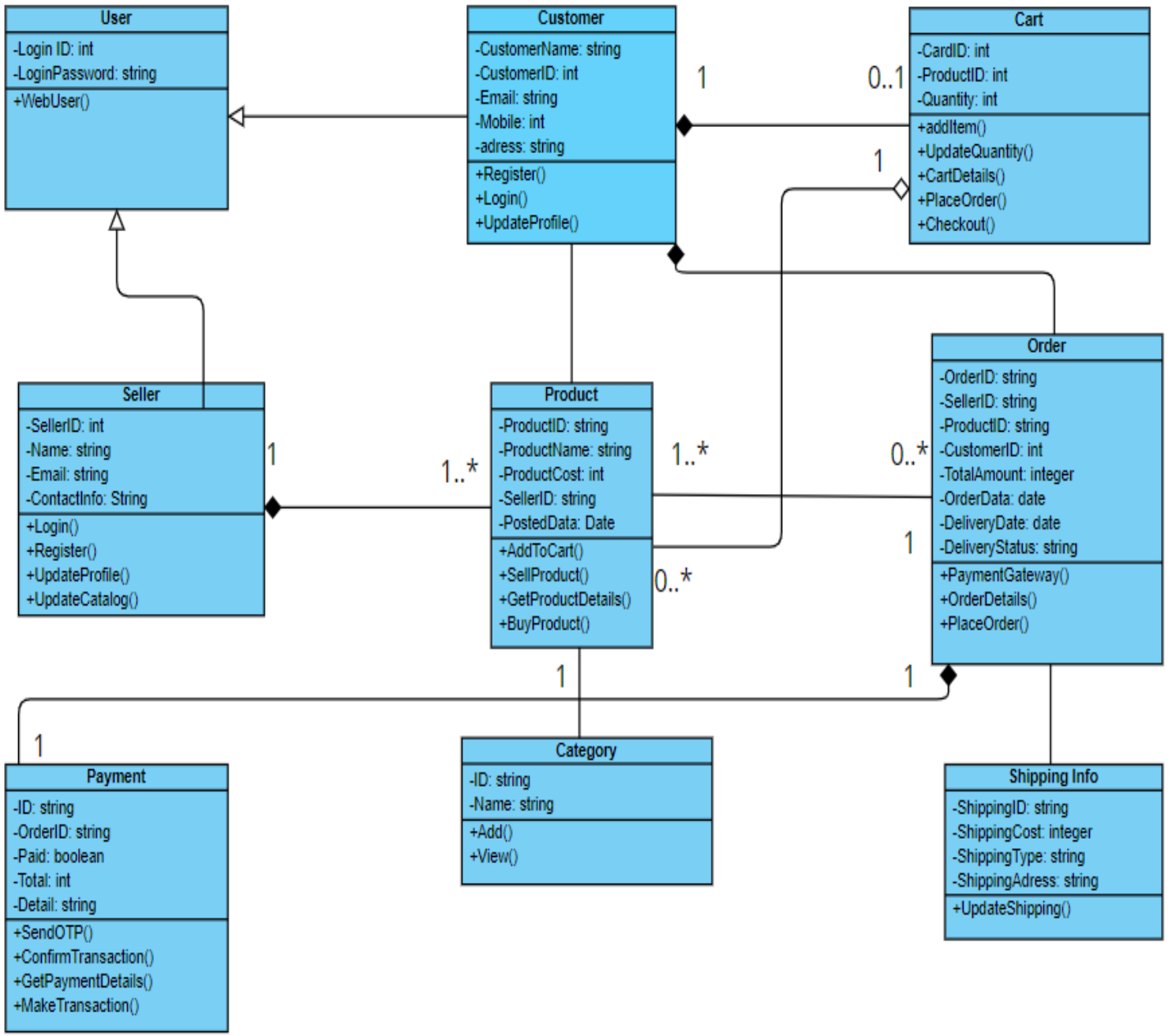
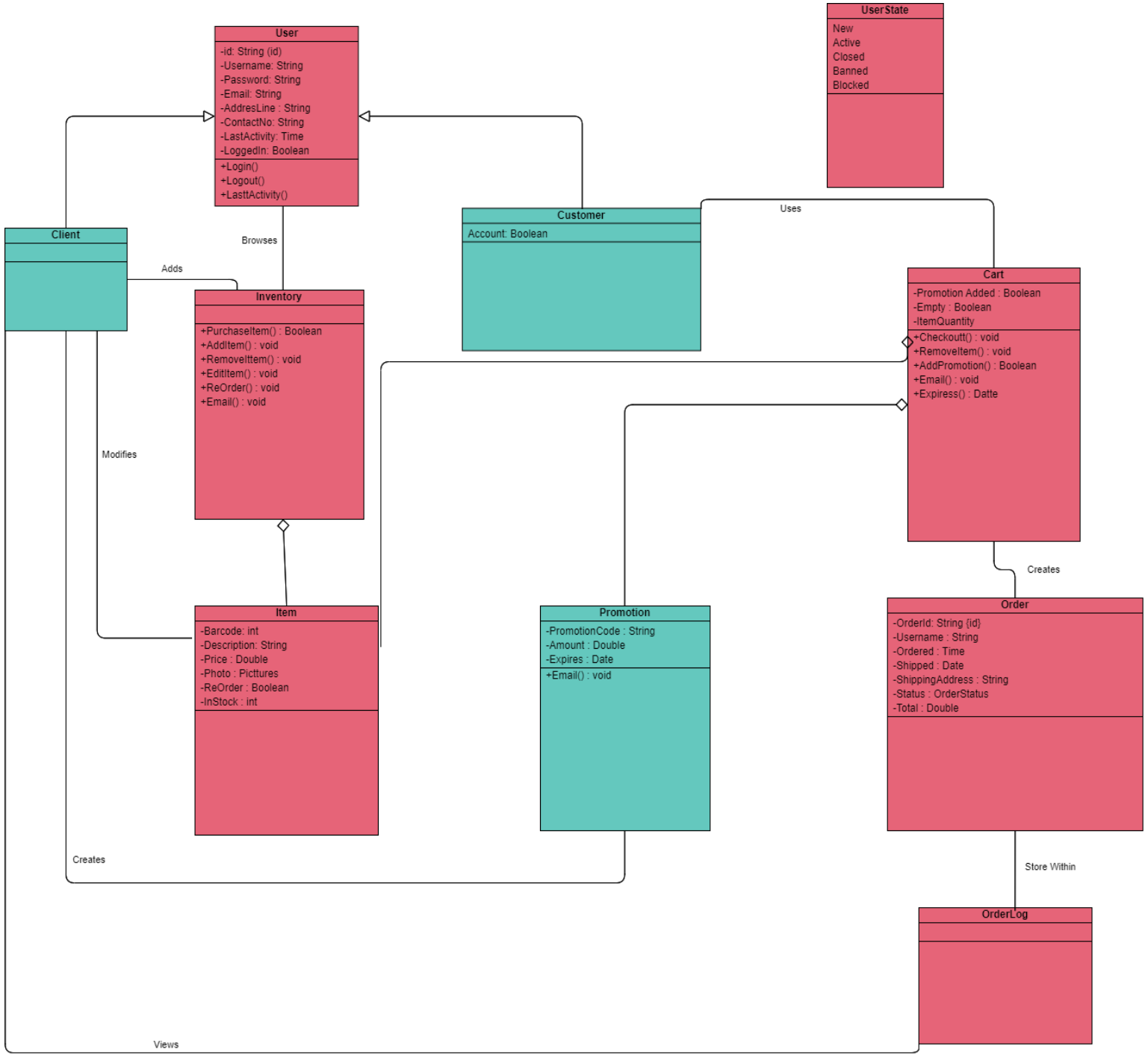
Class Diagram



Object Diagram



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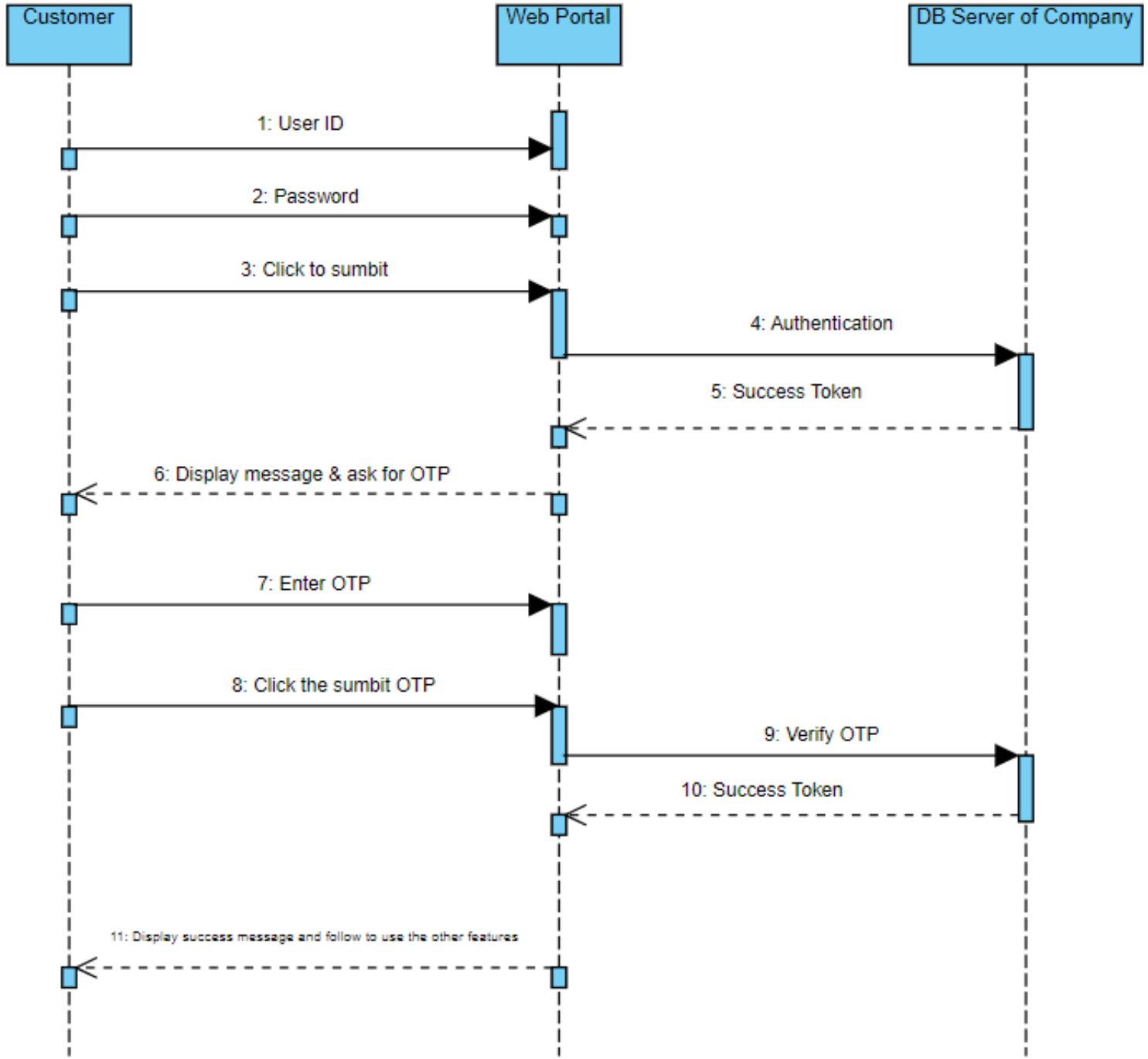
OrderStatuts
New
Pending
On_Hold
Skipped
Delivered
Closed

Sequence Diagram



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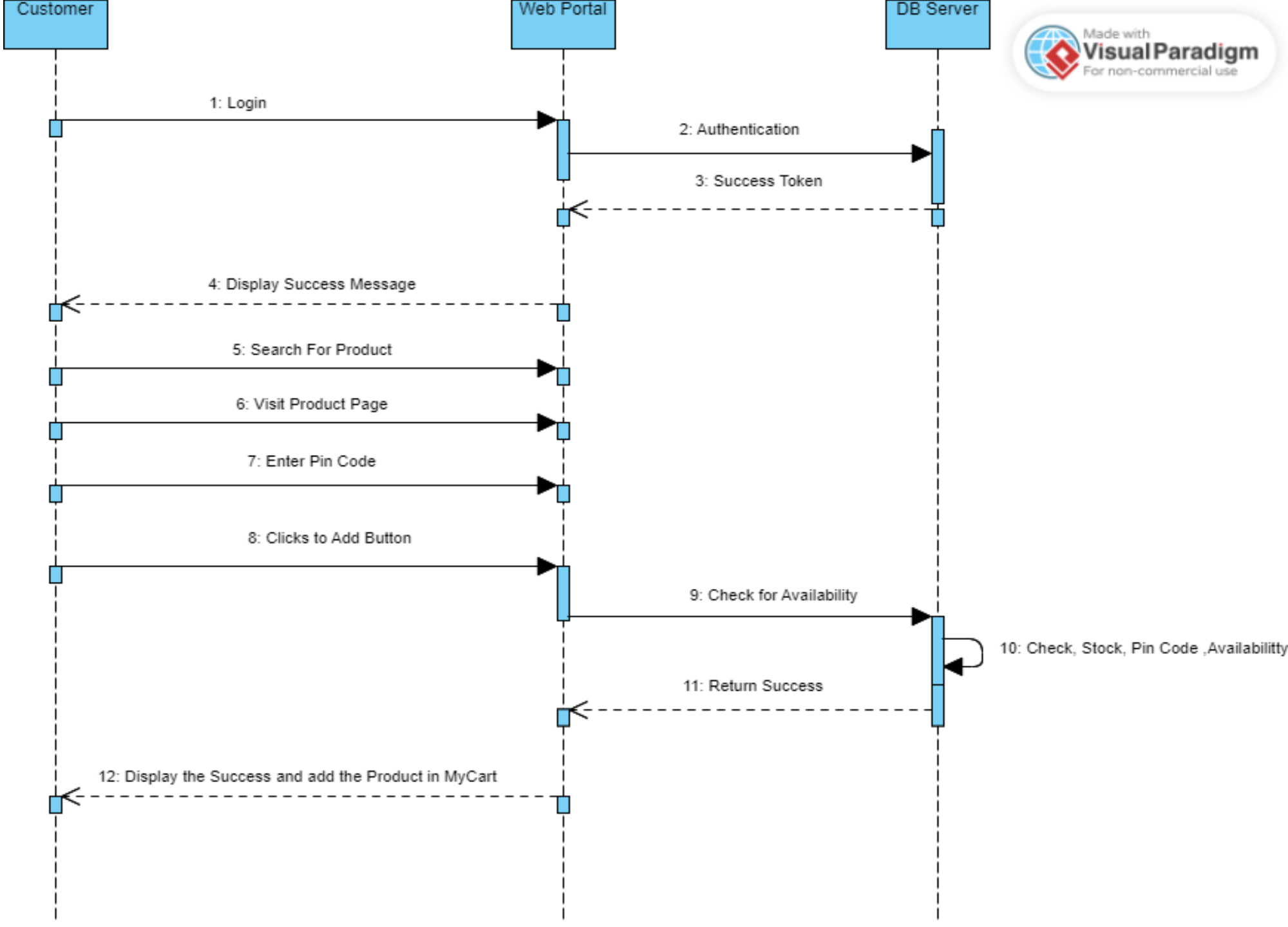

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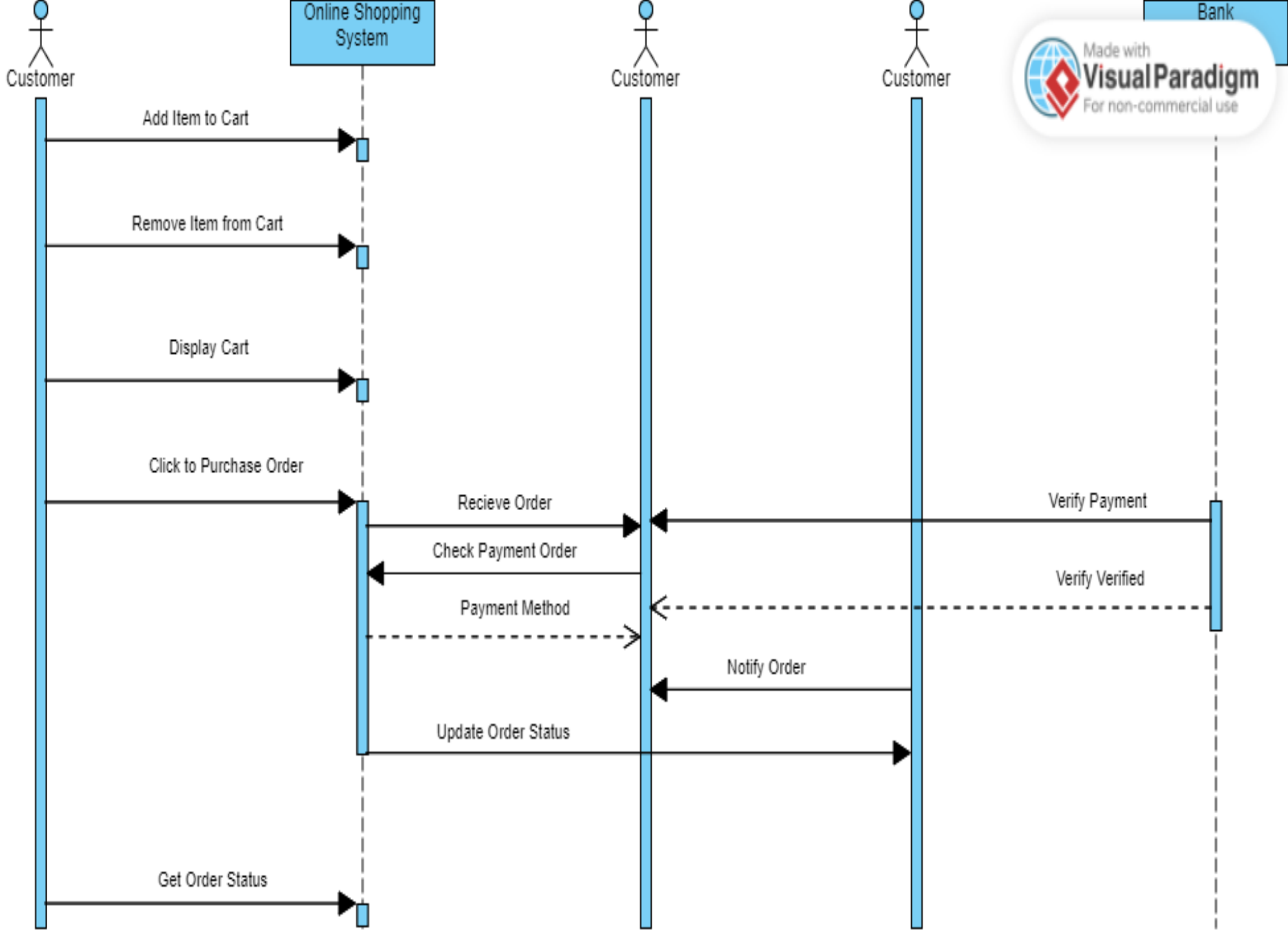
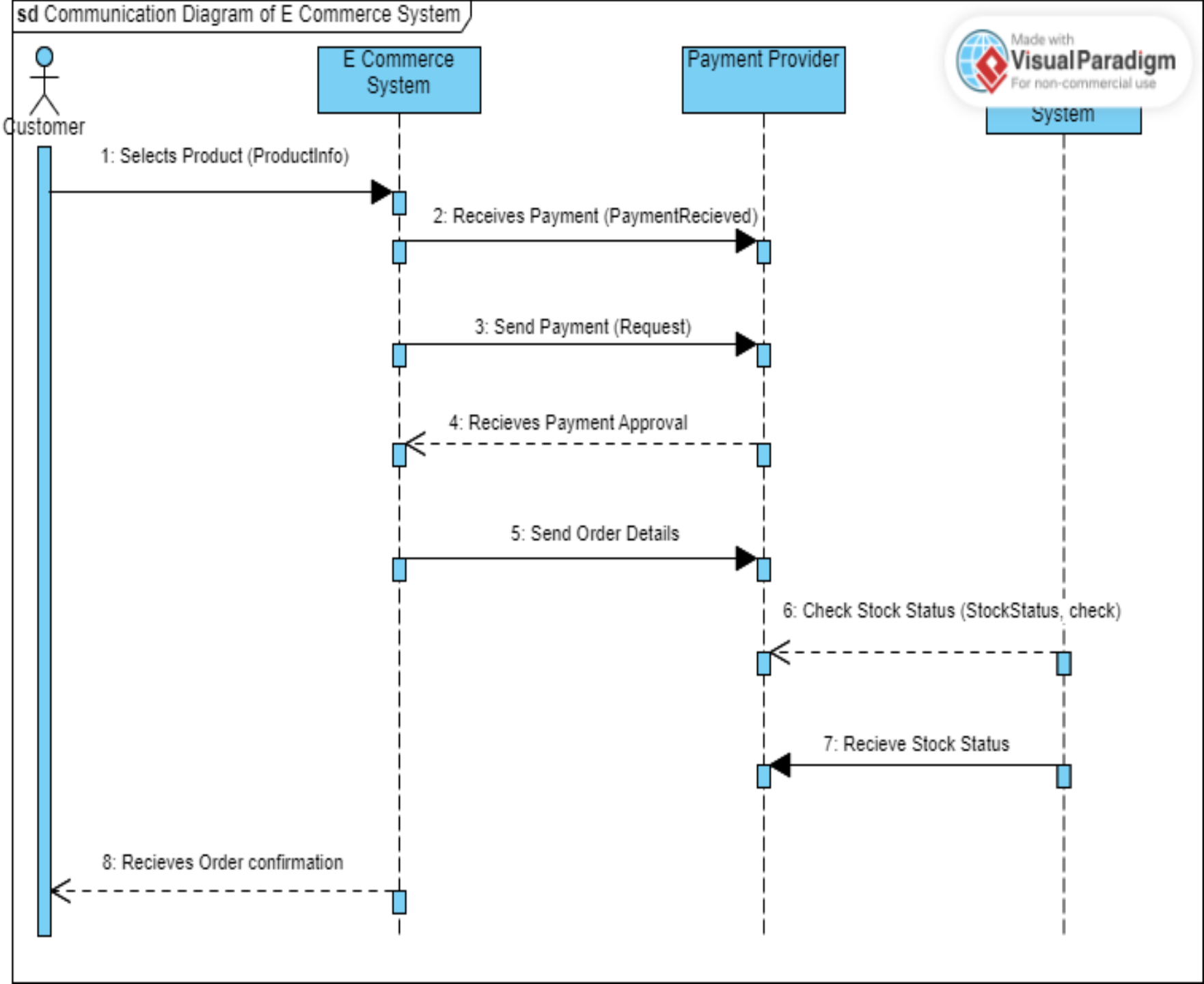


Communicatior Diagram



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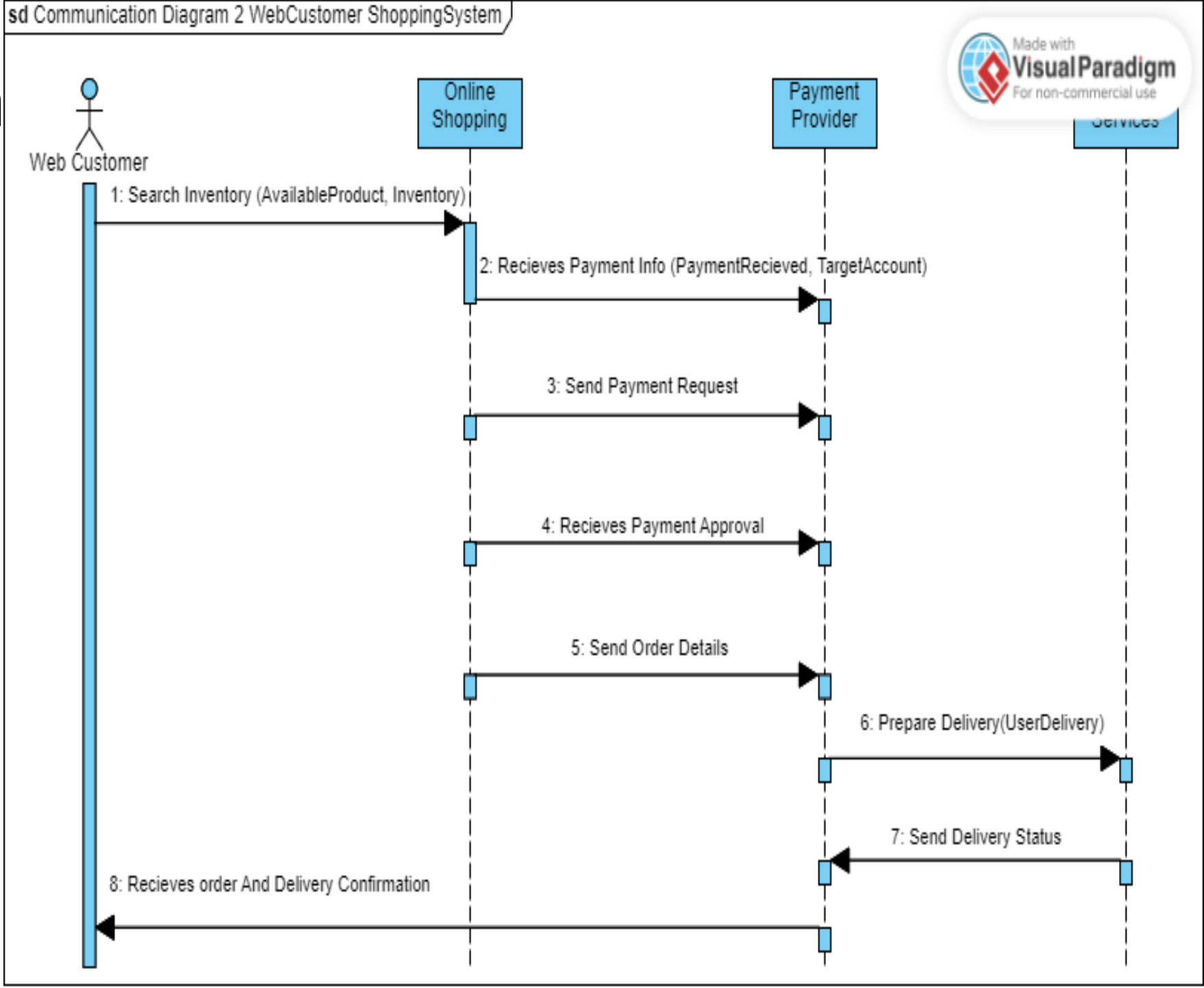

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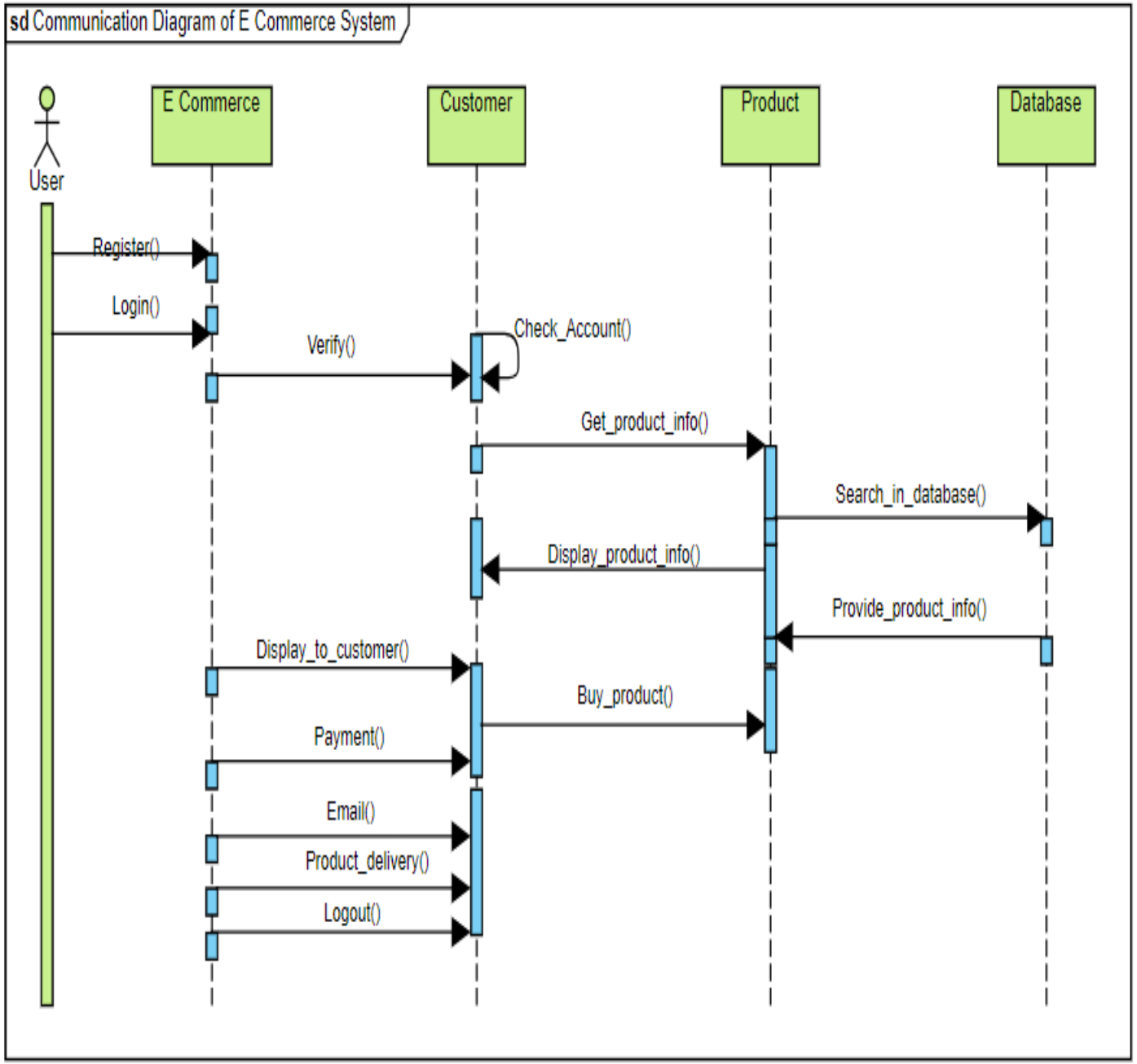
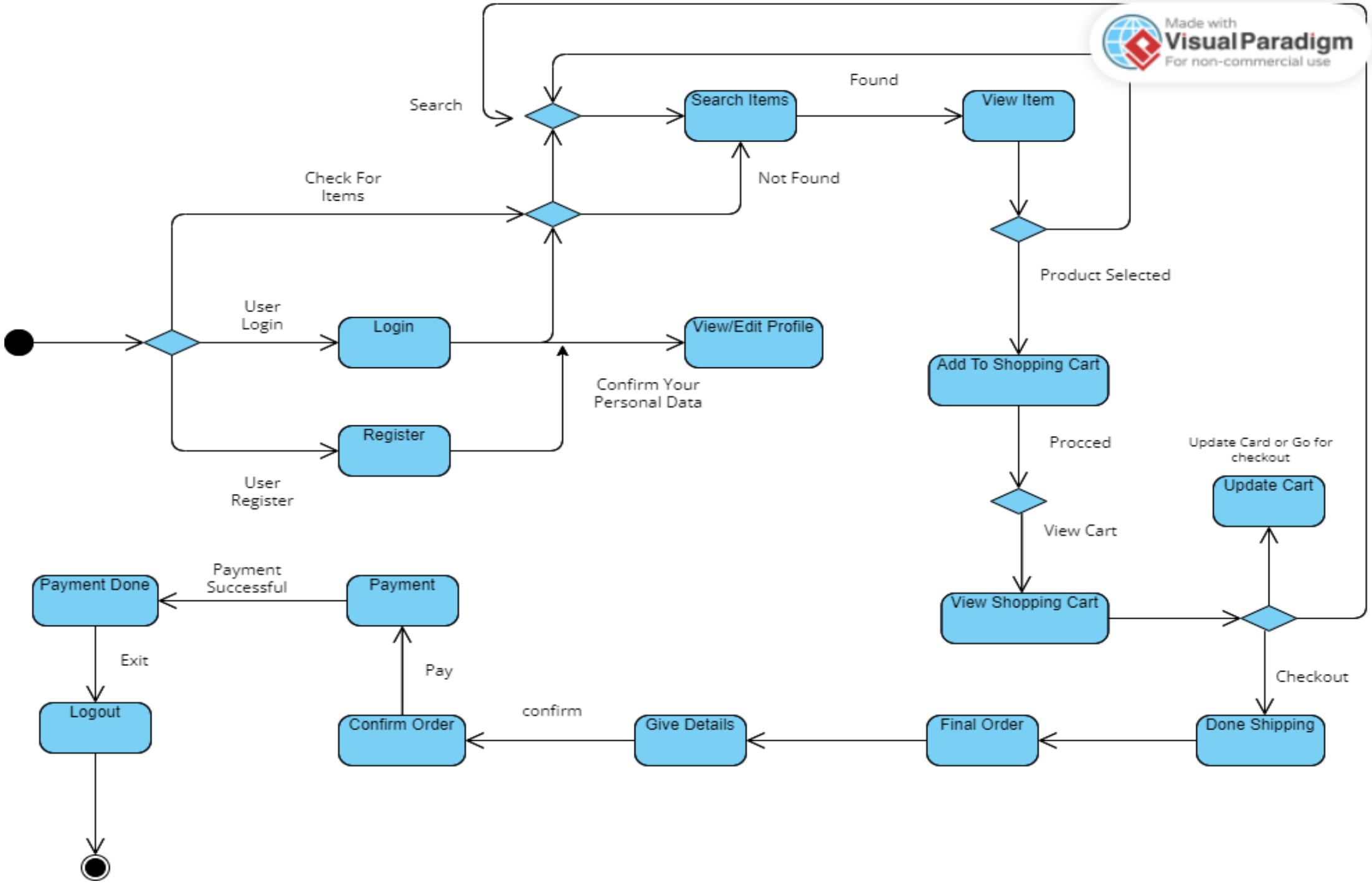


State Machine Diagram



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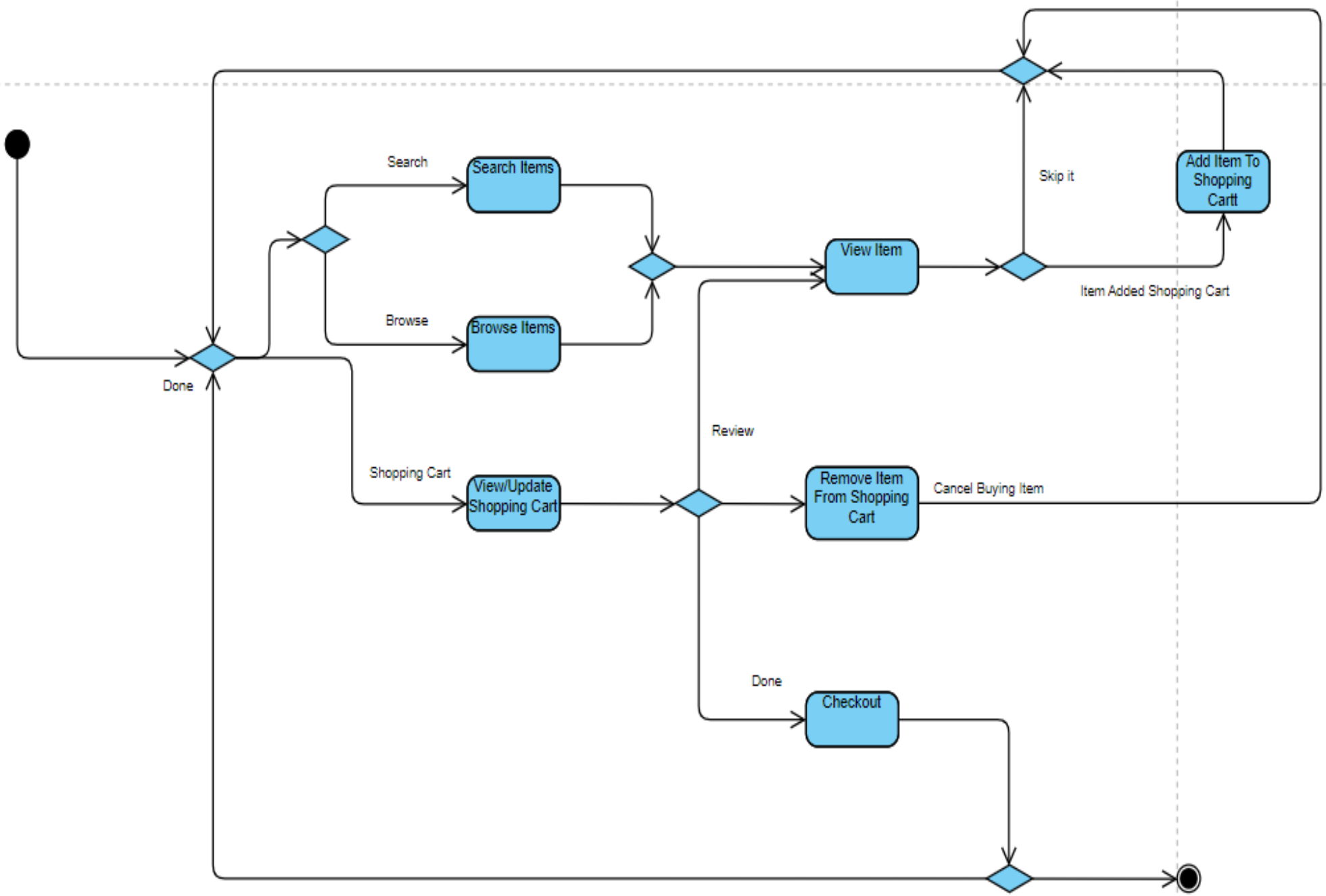

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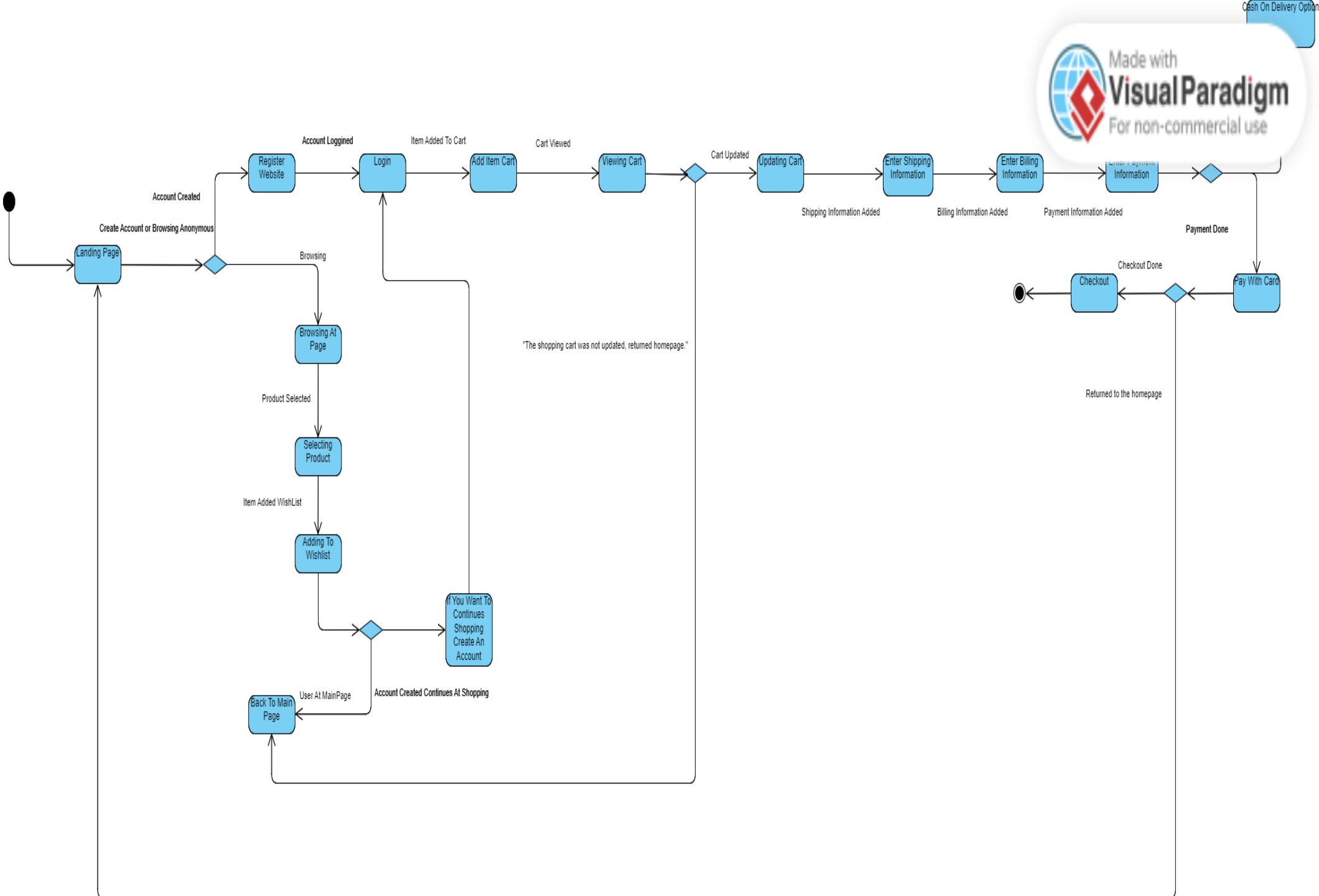
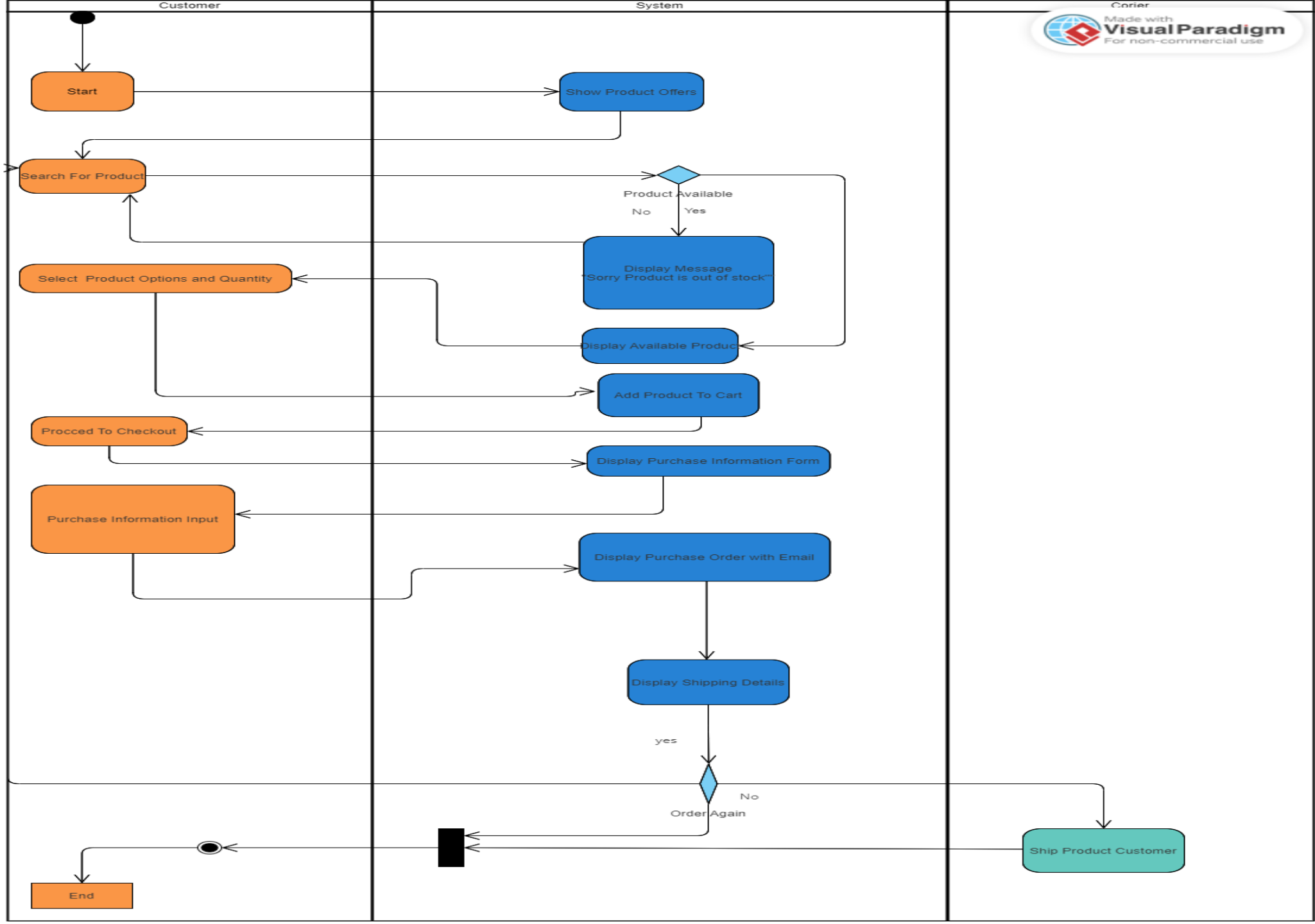


Activity Diagram



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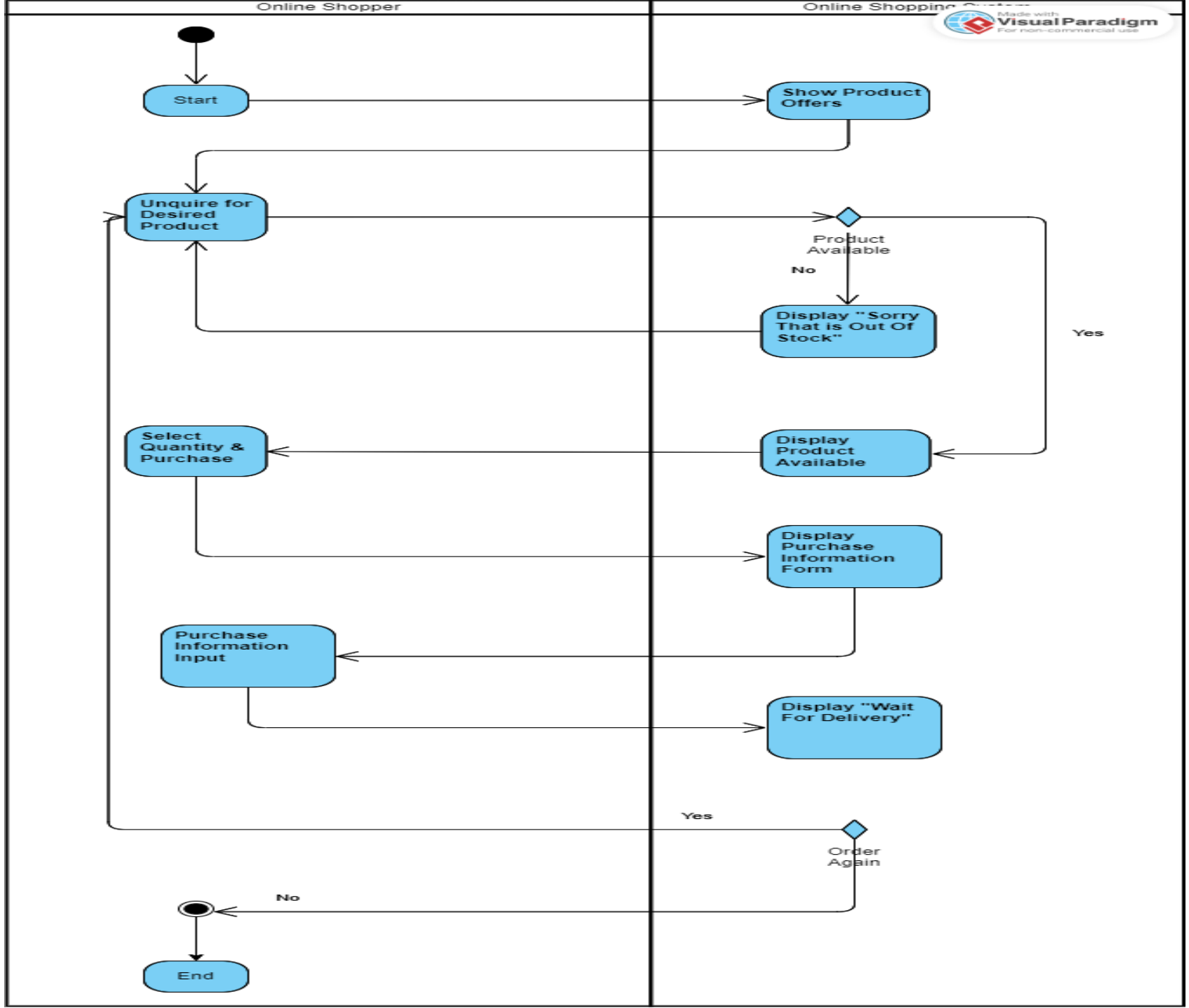

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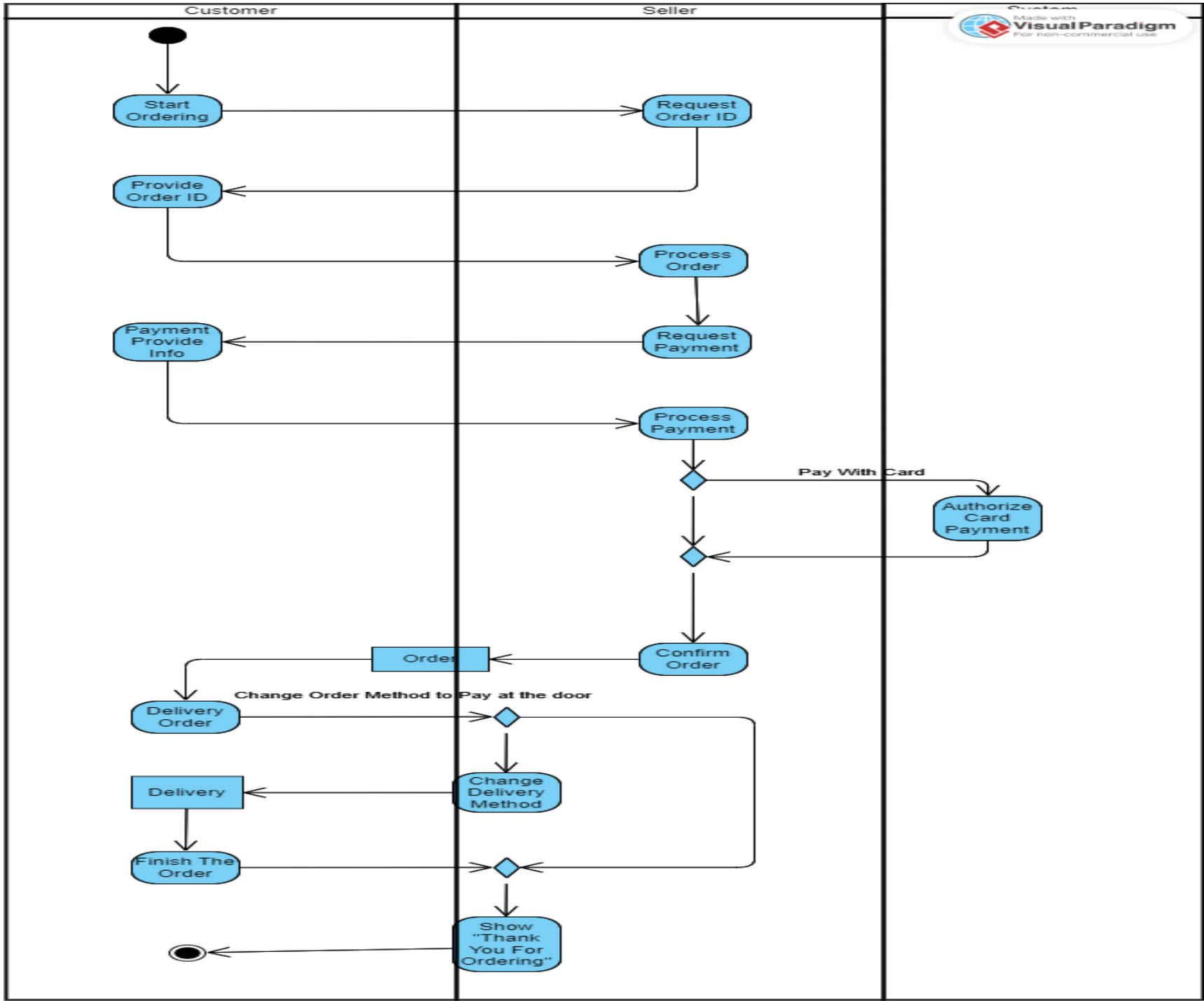
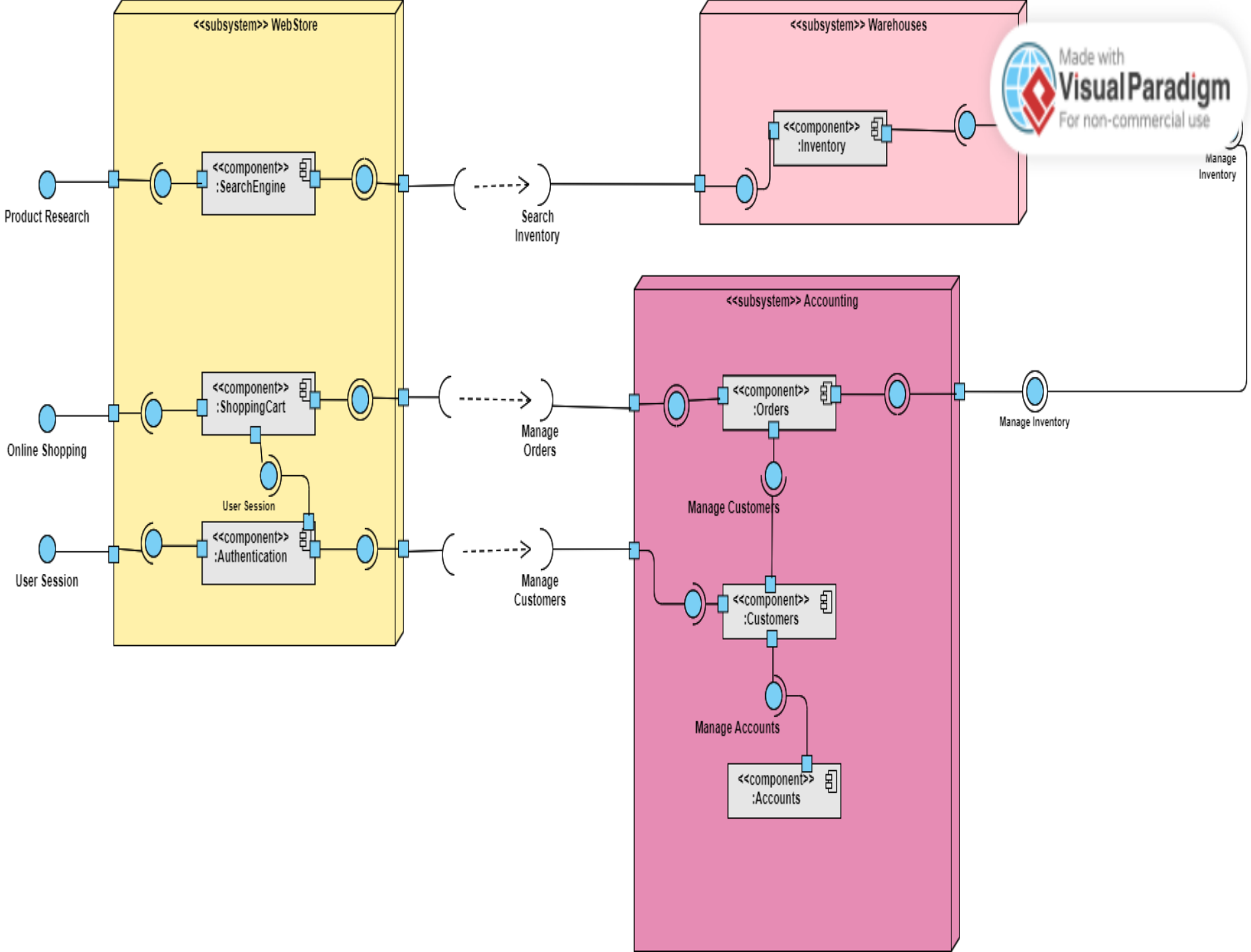
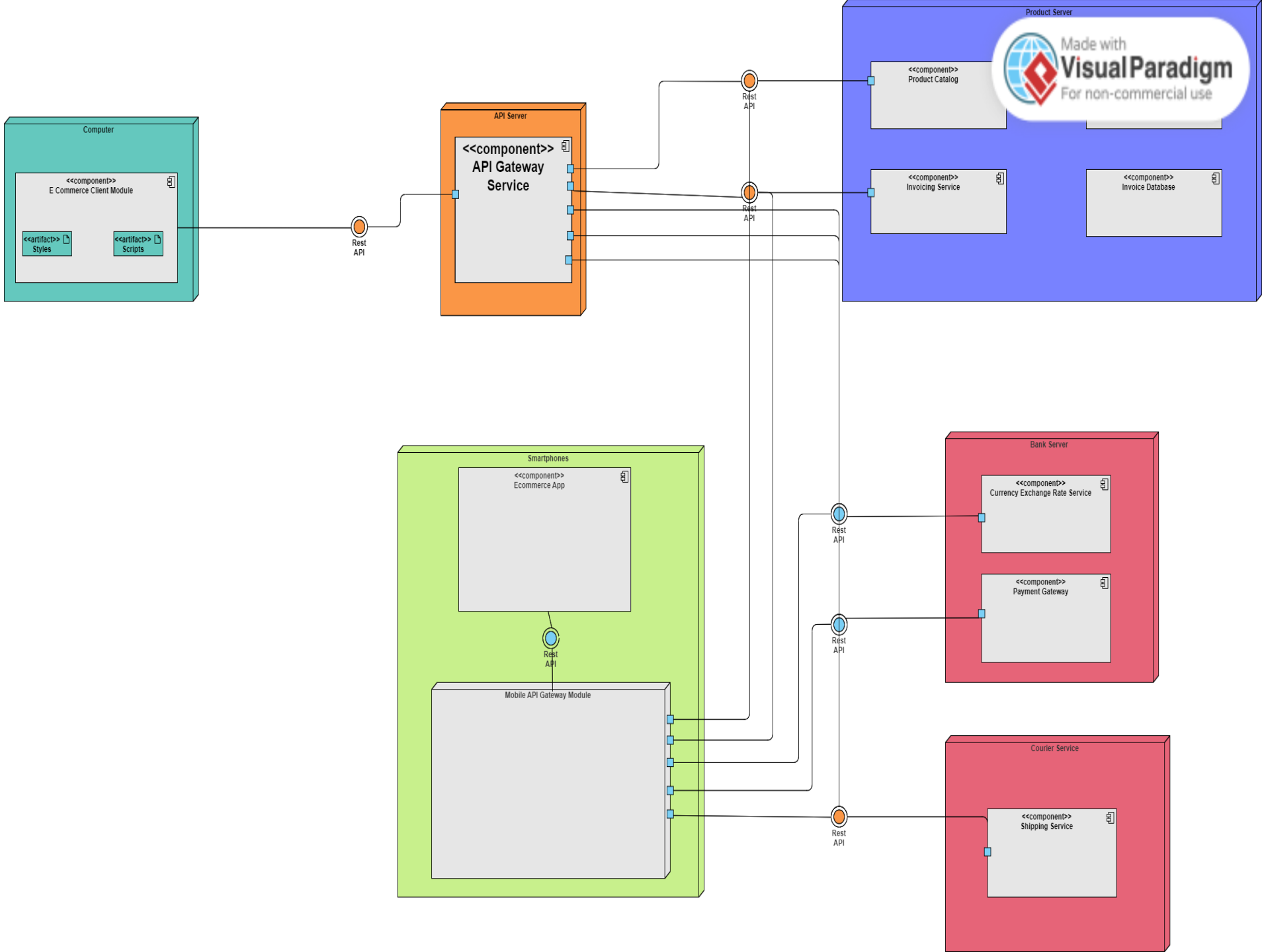


Component Diagram



Deployment Diagram