



**NATIONAL UNIVERSITY OF COMPUTER AND EMERGING SCIENCES**

**Software Design and Architecture**

**Group ASSIGNMENT 2**

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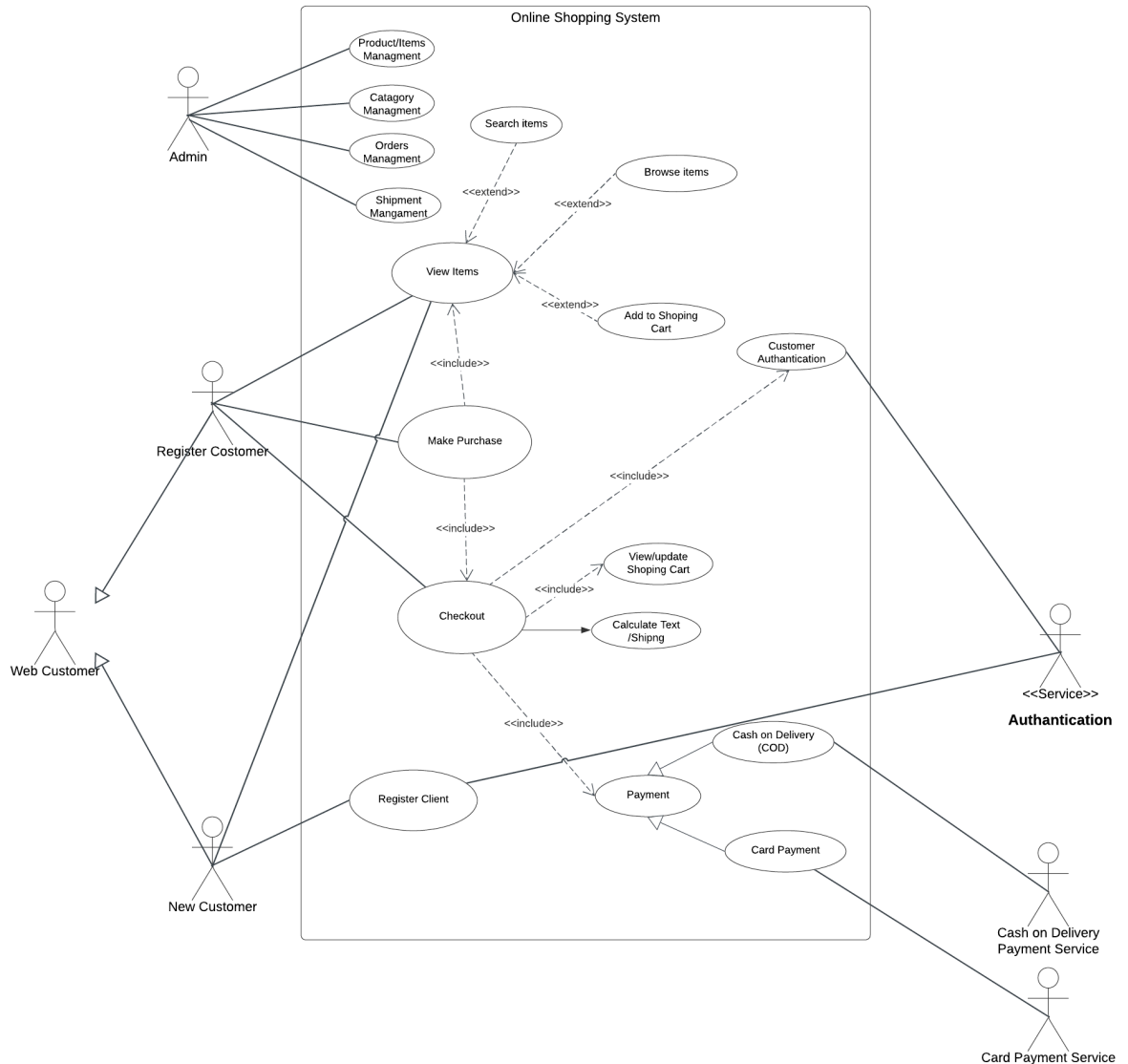
**SUBMITTED TO: Dr Kubaib Amjad Alam**

**Topic : Use Cases, Domain Model**

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# 1. Use Case Diagram:



## 2. Expanded Use Cases:

2.1 CUSTOMER: Can view the updated products available for purchase

Use Case ID:	UC-001
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Use Case Name:	View Updated Products
Scope:	E-commerce platform
Level:	User goal
Primary Actor:	Customer
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Customer: Interested in viewing the latest products available for purchase.</li> <li>2. E-commerce Platform: Interested in displaying updated products to encourage sales and retain customer interest.</li> <li>3. Product Suppliers: Interested in showcasing their latest offerings to potential customers.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. Customer is logged into the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. New products have been added or existing products have been updated in the platform's database</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. Customer can view the updated products with accurate information.</li> <li>2. Customer can proceed to view detailed product information or make a purchase.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. Customer navigates to the "New Arrivals" or "Updated Products" section of the e-commerce platform.</li> <li>2. Platform retrieves and displays the list of recently added or updated products.</li> <li>3. Customer scrolls through the list of products.</li> <li>4. Customer selects a product of interest.</li> <li>5. Platform displays detailed product information.</li> <li>6. Customer can proceed to purchase the product or continue browsing</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. The platform should regularly update the list of new or updated products to keep customers engaged.</li> <li>2. Notifications or alerts can be provided to inform customers about the availability of new products.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Mechanism for tracking and flagging newly added or updated products.</li> <li>2. Integration with inventory management system to ensure accurate product availability status.</li> </ol>

	3. User interface design to highlight new or updated products effectively.
Frequency of Occurrence:	Moderate to High - Customers may regularly check for new products depending on their purchasing behavior and interests.
Open Issues:	<ol style="list-style-type: none"> <li>1. Optimal frequency and timing for updating the list of new or updated products.</li> <li>2. Balancing the prominence of new products with other product categories to avoid overwhelming customers.</li> </ol>

## 2.2 Customer Can request to sign up for faster checkout in the future.

Use Case ID:	UC-002
Use Case Name:	Request Sign Up for Faster Checkout
Scope:	E-commerce platform
Level:	User goal
Primary Actor:	Guest user
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Guest User: Interested in expediting future checkout processes by signing up.</li> <li>2. E-commerce Platform: Interested in converting guest users into registered users to facilitate future purchases and improve customer retention.</li> <li>3. Marketing Team: Interested in strategizing and incentivizing guest users to sign up for accounts.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. User is a guest (not logged in) on the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. User successfully submits a request to sign up for a new account.</li> <li>2. User receives confirmation of their request.</li> </ol>

Main Success Scenario:	<ol style="list-style-type: none"> <li>1. Guest user proceeds to the checkout page.</li> <li>2. User selects the option to sign up for a new account for faster checkout.</li> <li>3. Platform prompts the user to provide necessary information for account creation (e.g., email, password).</li> <li>4. User fills out the required information.</li> <li>5. User submits the account creation request.</li> <li>6. Platform acknowledges the request and provides confirmation to the user.</li> <li>7. User may or may not proceed with the purchase at this time.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. The sign-up process should be streamlined and user-friendly to encourage guest users to create accounts.</li> <li>2. The platform should ensure the security of user information during the sign-up process.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. User authentication system for account creation and management.</li> <li>2. Secure data transmission protocols for handling user information.</li> <li>3. Confirmation email system for verifying new account requests.</li> </ol>
Frequency of Occurrence:	Moderate - Guest users may opt to sign up for accounts to facilitate future purchases, but not all guest users will choose to do so.
Open Issues:	<ol style="list-style-type: none"> <li>1. Incentives or benefits to encourage guest users to sign up for accounts.</li> <li>2. User experience optimization to reduce friction in the sign-up process</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the user already has an existing account, they can choose to log in instead of signing up for a new account.</li> <li>2. If the submitted information is incomplete or invalid, prompt the user to correct the errors before proceeding.</li> </ol>

## 2.3 Customer Can view the pickup points for delivery.

Use Case ID:	UC-003
Use Case Name:	View Pickup Points for Delivery
Scope:	E-commerce platform
Level:	User goal
Primary Actor:	Registered user
Stakeholders and Interests:	<ol style="list-style-type: none"><li>1. Registered User: Interested in knowing available pickup points for convenient delivery options.</li><li>2. E-commerce Platform: Interested in providing users with accurate information about pickup points to enhance user experience and facilitate deliveries.</li><li>3. Delivery Service Providers: Interested in efficiently managing pickup points and delivering products to customers.</li></ol>
Pre conditions:	<ol style="list-style-type: none"><li>1. User is logged into the e-commerce platform.</li><li>2. The platform is operational and accessible.</li><li>3. Delivery service providers are integrated with the platform and provide pickup point information.</li></ol>
Post Conditions :	<ol style="list-style-type: none"><li>1. User successfully views a list of available pickup points for delivery.</li><li>2. User can select a preferred pickup point for their order.</li></ol>
Main Success Scenario:	<ol style="list-style-type: none"><li>1. User navigates to the delivery options section during the checkout process.</li><li>2. User selects the option to view pickup points for delivery.</li><li>3. Platform retrieves and displays a list of available pickup points based on the user's location.</li><li>4. User reviews the list of pickup points, including details such as addresses, operating hours, and available services.</li><li>5. User selects a preferred pickup point from the list.</li><li>6. Platform confirms the selection and updates the delivery option accordingly.</li><li>7. User may proceed with the checkout process.</li></ol>
Special Requirements:	<ol style="list-style-type: none"><li>1. The platform should have access to accurate and up-to-date information about pickup points from integrated delivery service providers.</li></ol>

	<ol style="list-style-type: none"> <li>2. User interface should be intuitive and provide relevant details about each pickup point for informed decision-making.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Integration with delivery service provider APIs to retrieve pickup point information.</li> <li>2. Geolocation services to determine the user's location for displaying nearby pickup points.</li> <li>3. Database to store and manage pickup point details such as addresses, operating hours, and services.</li> </ol>
Frequency of Occurrence:	Moderate - Users may want to view pickup points when choosing delivery options for their orders, but not all users will opt for pickup points.
Open Issues:	<ol style="list-style-type: none"> <li>1. Optimization of pickup point selection process for better user experience.</li> <li>2. Coordination with delivery service providers to ensure accurate and timely updates of pickup point information.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the user's location cannot be determined automatically, prompt the user to enter their location manually or provide alternative methods for selecting pickup points.</li> <li>2. If the selected pickup point is unavailable or closed, inform the user and provide alternative options.</li> </ol>

2.4 Customer Can make urgent payments by scanning the QR code of a local payment API.

Use Case ID:	UC-004
Use Case Name:	Make Urgent Payment via QR Code Scan
Scope:	E-commerce platform
Level:	User goal



Primary Actor:	Registered user
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Registered User: Interested in making urgent payments conveniently using local payment APIs.</li> <li>2. E-commerce Platform: Interested in facilitating quick and seamless payment transactions for users to improve customer satisfaction.</li> <li>3. Local Payment Service Providers: Interested in providing secure and efficient payment processing solutions for e-commerce transactions.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. User is logged into the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. Local payment APIs are integrated with the platform.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. User successfully completes the payment transaction by scanning the QR code.</li> <li>2. Payment is processed securely and efficiently.</li> <li>3. Order status is updated accordingly.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. User proceeds to the checkout page to complete the payment for their order.</li> <li>2. User selects the option to make an urgent payment using local payment APIs.</li> <li>3. Platform generates a unique QR code representing the payment details.</li> <li>4. User opens the local payment app on their device and selects the option to scan a QR code.</li> <li>5. User scans the QR code generated by the platform.</li> <li>6. Payment app retrieves the payment details from the QR code and prompts the user to confirm the transaction.</li> <li>7. User confirms the transaction within the payment app.</li> <li>8. Payment app processes the transaction and sends a confirmation to the platform.</li> <li>9. Platform updates the order status to reflect the successful payment.</li> <li>10. User receives confirmation of the completed payment transaction.</li> </ol>

Special Requirements:	<ol style="list-style-type: none"> <li>1. Integration with local payment APIs to generate QR codes and process transactions securely.</li> <li>2. Compatibility with various local payment apps and systems to support a wide range of users.</li> <li>3. User interface should provide clear instructions for scanning QR codes and completing payment transactions.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Integration with local payment service provider APIs for generating QR codes and processing payments.</li> <li>2. Secure transmission protocols for exchanging payment data between the platform and local payment apps.</li> <li>3. Database to store and manage payment transaction details for order processing and reconciliation.</li> </ol>
Frequency of Occurrence:	Low to moderate - Users may opt for urgent payments via QR code scan for specific orders requiring immediate processing.
Open Issues:	<ol style="list-style-type: none"> <li>1. Compatibility testing with different local payment apps and devices to ensure smooth user experience.</li> <li>2. Security measures to protect sensitive payment data during QR code generation and transaction processing.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the local payment API is unavailable or encounters errors, inform the user and provide alternative payment options.</li> <li>2. If the QR code is invalid or cannot be scanned, prompt the user to try again or provide assistance.</li> </ol>

## 2.5 Customer Can contact customer support for order confirmation.

Use Case ID:	UC-005
Use Case Name:	Contact Customer Support for Order Confirmation
Scope:	E-commerce platform
Level:	User goal
Primary Actor:	Registered user
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Registered User: Interested in obtaining order</li> </ol>



	<p>confirmation and resolving any related issues promptly.</p> <ol style="list-style-type: none"> <li>2. E-commerce Platform: Interested in providing reliable customer support services to ensure user satisfaction and trust in the platform.</li> <li>3. Customer Support Team: Interested in assisting users with order-related inquiries and ensuring smooth order processing.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. User is logged into the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. Orders have been placed by the user and require confirmation.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. User successfully contacts customer support and receives order confirmation or resolution to their inquiry.</li> <li>2. User is satisfied with the level of assistance provided by customer support.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. User navigates to the "Contact Us" or "Support" section of the e-commerce platform.</li> <li>2. User selects the option to contact customer support for order confirmation.</li> <li>3. Platform provides various contact options such as live chat, email, or phone.</li> <li>4. User chooses the preferred contact method (e.g., live chat).</li> <li>5. Platform connects the user to a customer support representative.</li> <li>6. User provides necessary details such as order ID and inquiry to the representative.</li> <li>7. Customer support representative confirms the order details and provides the necessary confirmation to the user.</li> </ol>
Use Case ID:	UC-006
Use Case Name:	Reserve Special Delivery Services
Scope:	E-commerce platform
Level:	User goal
Special Requirements:	<ol style="list-style-type: none"> <li>1. Customer support channels should be easily accessible and responsive to user inquiries.</li> <li>2. Customer support representatives should be adequately trained to handle order-related inquiries efficiently and professionally.</li> </ol>
Primary Actor:	Registered User
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Registered User: Interested in selecting and reserving special delivery services to meet specific delivery requirements.</li> </ol>

## 2.6 Customer Can reserve special delivery services for specific orders.

	<ol style="list-style-type: none"> <li>2. E-commerce Platform: Interested in providing flexible delivery options to accommodate users' diverse needs and preferences.</li> <li>3. Delivery Service Providers: Interested in efficiently managing special delivery requests and ensuring timely and reliable deliveries.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. User is logged into the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. Special delivery services are available and integrated with the platform.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. User successfully reserves special delivery services for the specified order.</li> <li>2. Special delivery requirements are communicated to the delivery service provider.</li> <li>3. Order is delivered according to the reserved special delivery services.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. User proceeds to the checkout page to complete the order.</li> <li>2. User selects the option to view available delivery services.</li> <li>3. Platform displays a list of standard and special delivery services available for the order.</li> <li>4. User selects the desired special delivery service from the list (e.g., expedited shipping, same-day delivery).</li> <li>5. Platform prompts the user to confirm the reservation of the selected special delivery service.</li> <li>6. User confirms the reservation.</li> <li>7. Platform updates the order details to reflect the reserved special delivery service.</li> <li>8. User completes the checkout process and submits the order.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. Integration with delivery service provider systems to facilitate reservation and coordination of special delivery services.</li> <li>2. User interface should clearly present available special delivery options and their associated costs and delivery times.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Integration with delivery service provider APIs for accessing and managing special delivery services.</li> </ol>

	<ol style="list-style-type: none"> <li>2. Database to store and retrieve information about available special delivery options, including pricing and delivery times.</li> <li>3. Communication channels for transmitting special delivery requests and order details to the delivery service provider.</li> </ol>
Frequency of Occurrence:	Moderate - Users may opt for special delivery services for specific orders requiring expedited or customized delivery options.
Open Issues:	<ol style="list-style-type: none"> <li>1. Monitoring and optimizing the availability and reliability of special delivery services to meet user demand.</li> <li>2. Coordination with delivery service providers to ensure seamless implementation and fulfillment of reserved special delivery services</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If there are no special delivery services available for the order (e.g., due to location restrictions), inform the user and provide alternative options.</li> <li>2. If the user decides to change or cancel the reserved special delivery service, allow them to modify the selection before finalizing the order</li> </ol>

## 2.7 Customer Can create shortcuts for frequently purchased items

Use Case ID:	UC-007
Use Case Name:	Create Shortcuts for Frequently Purchased Items
Scope:	E-commerce platform
Level:	User goal
Primary Actor:	Registered user
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Registered User: Interested in streamlining the shopping experience by creating shortcuts for frequently purchased items.</li> <li>2. E-commerce Platform: Interested in enhancing user satisfaction and loyalty by providing personalized features for efficient shopping.</li> </ol>

	<ol style="list-style-type: none"> <li>Product Suppliers: Interested in promoting their products through user-created shortcuts for increased visibility and sales</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>User is logged into the e-commerce platform.</li> <li>The platform is operational and accessible.</li> <li>User has purchased items on the platform and identified products for creating shortcuts</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>User successfully creates shortcuts for frequently purchased items.</li> <li>Shortcuts are saved and accessible for future use.</li> <li>User experiences improved efficiency and convenience in finding and purchasing items.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>User navigates to the "My Account" or "Settings" section of the e-commerce platform.</li> <li>User selects the option to manage shortcuts or favorites.</li> <li>Platform displays a list of recently purchased items or options to search for products to add as shortcuts.</li> <li>User selects the desired items to create shortcuts for.</li> <li>User confirms the selection and saves the shortcuts.</li> <li>Platform updates the user's account to include the newly created shortcuts.</li> <li>User can access the shortcuts from the homepage or dedicated section of the platform.</li> <li>User can quickly add items from the shortcuts to the cart for future purchases.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>User interface should provide intuitive and efficient tools for creating and managing shortcuts.</li> <li>Platform should ensure that saved shortcuts remain synced and accessible across different devices for user convenience.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>Database to store and manage user-created shortcuts, including product identifiers and user preferences.</li> <li>Front-end tools for users to interact with and manage their shortcuts.</li> </ol>

	3. Recommendation algorithms to suggest items for shortcuts based on user purchase history and browsing behavior.
Frequency of Occurrence:	Moderate to high - Users may frequently create shortcuts for items they purchase regularly to expedite future shopping experiences.
Open Issues:	<ol style="list-style-type: none"> <li>1. Feedback mechanisms for users to provide input on the usefulness and effectiveness of the shortcut feature.</li> <li>2. Implementation of additional customization options for organizing and categorizing shortcuts based on user preferences.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the user has not made any purchases yet, provide alternative options for discovering products to add as shortcuts (e.g., browsing popular items or recommendations).</li> <li>2. If the user exceeds the maximum limit for shortcuts, inform the user and allow them to manage existing shortcuts to make room for new ones.</li> </ol>

## 2.8 Customer Can cancel orders in case of emergencies.

Use Case ID:	UC-008
Use Case Name:	Cancel Orders in Case of Emergencies
Scope:	E-commerce platform
Level:	User goal
Primary Actor:	Registered user
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Registered User: Interested in having the ability to cancel orders swiftly and efficiently in emergency situations.</li> <li>2. E-commerce Platform: Interested in providing a seamless and responsive cancellation process to ensure user satisfaction and trust in the platform.</li> <li>3. Customer Support Team: Interested in assisting</li> </ol>



	users with order cancellations and providing support during emergency situations.
Pre conditions:	<ol style="list-style-type: none"> <li>1. User is logged into the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. The order to be canceled is not yet dispatched or fulfilled.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. User successfully cancels the order in case of emergencies.</li> <li>2. Any payment made for the canceled order is refunded to the user's account.</li> <li>3. User is satisfied with the cancellation process and assistance provided by customer support if necessary.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. User navigates to the "My Orders" or "Order History" section of the e-commerce platform.</li> <li>2. User identifies the order they need to cancel due to an emergency situation.</li> <li>3. User selects the option to cancel the order.</li> <li>4. Platform prompts the user to provide a reason for the cancellation, optionally.</li> <li>5. User confirms the cancellation request.</li> <li>6. Platform acknowledges the cancellation request and updates the order status accordingly.</li> <li>7. If necessary, user contacts customer support for further assistance or expedited processing of the cancellation.</li> <li>8. Platform processes the cancellation and initiates the refund process for any payment made.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. User interface should provide clear and accessible options for canceling orders, especially during emergency situations.</li> <li>2. Customer support team should be available and responsive to assist users with urgent order cancellations.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Database to store and manage order information, including cancellation requests and refund processes.</li> <li>2. Communication channels for users to contact customer support for emergency order cancellations.</li> </ol>

	3. Payment processing systems for initiating refunds to users' accounts.
Frequency of Occurrence:	Low to moderate - Users may need to cancel orders in case of emergencies occasionally.
Open Issues:	<ol style="list-style-type: none"> <li>1. Monitoring and optimizing the cancellation process to ensure prompt and efficient handling of emergency situations.</li> <li>2. Reviewing and updating policies and procedures for order cancellations to accommodate users' needs during emergencies while mitigating potential abuse of the cancellation feature.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the order is already dispatched or fulfilled, inform the user that cancellation may not be possible, and provide alternative options such as returning the items after delivery.</li> <li>2. If the cancellation request cannot be processed immediately due to technical reasons or manual review requirements, inform the user about the delay and provide updates on the status of the cancellation.</li> </ol>

## 2.9 Customer Can review orders and delivery experiences.

Use Case ID:	UC-009
Use Case Name:	Review Orders and Delivery Experiences
Scope:	E-commerce platform
Level:	User goal
Primary Actor:	Registered user
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Registered User: Interested in providing feedback on orders and delivery experiences to help improve service quality and inform other users' purchasing decisions.</li> <li>2. E-commerce Platform: Interested in collecting user reviews and feedback to enhance customer satisfaction, identify areas for improvement, and</li> </ol>

	<p>maintain trust in the platform.</p> <ol style="list-style-type: none"> <li>3. Delivery Service Providers: Interested in receiving feedback on delivery experiences to improve service quality and efficiency.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. User is logged into the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. User has completed one or more orders that have been delivered.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. User successfully reviews orders and delivery experiences.</li> <li>2. User feedback is recorded and made available for other users and relevant stakeholders.</li> <li>3. Platform utilizes user feedback to improve service quality and user satisfaction.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. User navigates to the "My Orders" or "Order History" section of the e-commerce platform.</li> <li>2. User selects the completed order they wish to review.</li> <li>3. Platform displays order details and provides an option to leave a review.</li> <li>4. User provides ratings and written feedback on various aspects of the order and delivery experience (e.g., product quality, delivery speed, packaging).</li> <li>5. User submits the review.</li> <li>6. Platform acknowledges the submission of the review and updates the order status to indicate that a review has been left.</li> <li>7. User may review additional orders or return to other activities on the platform.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. User interface should provide intuitive tools for leaving reviews and rating order and delivery experiences.</li> <li>2. Platform should ensure transparency and authenticity of user reviews to maintain trust and credibility.</li> </ol>
Technology and Data	<ol style="list-style-type: none"> <li>1. Database to store and manage user reviews and</li> </ol>

Variations List:	<p>associated order details.</p> <ol style="list-style-type: none"> <li>Review moderation tools to monitor and filter reviews for inappropriate content or spam.</li> <li>Integration with delivery service provider systems to gather feedback on delivery experiences.</li> </ol>
Frequency of Occurrence:	Moderate - Users may review orders and delivery experiences regularly, especially for significant or unsatisfactory experiences.
Open Issues:	<ol style="list-style-type: none"> <li>Implementing mechanisms to encourage users to leave reviews and provide constructive feedback.</li> <li>Analyzing and leveraging user feedback to implement actionable improvements in product offerings, delivery processes, and overall service quality.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>If the user is not satisfied with the order or delivery experience, provide an option to contact customer support for assistance or resolution.</li> <li>If the review submission encounters errors or fails to be recorded, inform the user and provide guidance on retrying the submission</li> </ol>

## 2.10 ADMIN Add a new product category

Use Case ID:	UC-010
Use Case Name:	Add a New Product Category
Scope:	E-commerce platform administration
Level:	Goal
Primary Actor:	Administrator
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>Administrator: Interested in maintaining and expanding the product catalog by adding new categories to accommodate diverse products.</li> <li>Merchants/Sellers: Interested in having their products appropriately categorized for better visibility and organization.</li> <li>Customers: Interested in easily finding products of interest through well-organized categories.</li> </ol>

Pre conditions:	<ol style="list-style-type: none"> <li>1. Administrator is logged into the administration panel of the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. There is a need to introduce a new category to the existing product catalog.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>1. A new product category is successfully added to the platform's product catalog.</li> <li>2. Merchants can assign products to the newly created category.</li> <li>3. Customers can browse and discover products within the new category.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. Administrator navigates to the category management section within the administration panel.</li> <li>2. Administrator selects the option to add a new category.</li> <li>3. Administrator enters the name and optional description for the new category.</li> <li>4. Administrator specifies any parent category if the new category is a subcategory.</li> <li>5. Administrator configures any additional settings or attributes for the new category (e.g., visibility, sorting order).</li> <li>6. Administrator confirms the creation of the new category.</li> <li>7. Platform updates the product catalog to include the newly added category.</li> <li>8. Merchants can now assign products to the new category during product management.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. User interface should provide intuitive tools for administrators to add and manage product categories.</li> <li>2. Platform should support hierarchical category structures to accommodate both broad and specific categorization.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Database to store and manage product category information, including names, descriptions, and relationships.</li> <li>2. Administrative tools for configuring category settings and attributes.</li> </ol>

	3. Integration with the platform's product management system to ensure seamless addition and assignment of products to new categories.
Frequency of Occurrence:	Low to moderate - Adding new product categories typically occurs infrequently, as it is done to accommodate significant changes or expansions in product offerings
Open Issues:	<ol style="list-style-type: none"> <li>1. Monitoring and optimizing category organization to ensure consistency, relevance, and ease of navigation for users.</li> <li>2. Implementing tools for analyzing category usage and performance to inform future category management decisions.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the entered category name is already in use or conflicts with existing categories, prompt the administrator to choose a different name.</li> <li>2. If the new category requires specific attributes or settings not available in the default configuration, provide options for customization or contact technical support for assistance.</li> </ol>

## 2.11 ADMIN Add a new product to inventory.

Use Case ID:	UC-011
Use Case Name:	Add a New Product to Inventory
Scope:	E-commerce platform administration
Level:	Administrator goal
Primary Actor:	Administrator
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Administrator: Interested in expanding the product offerings of the e-commerce platform by adding new products to the inventory.</li> <li>2. Merchants/Sellers: Interested in having their products listed and available for sale on the platform.</li> <li>3. Customers: Interested in accessing a wide range of products for purchase on the platform.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. Administrator is logged into the administration panel</li> </ol>

	<p>of the e-commerce platform.</p> <ol style="list-style-type: none"> <li>The platform is operational and accessible.</li> <li>There is a need to introduce a new product to the inventory.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>A new product is successfully added to the platform's inventory.</li> <li>The product is listed and available for sale on the platform.</li> <li>Customers can view and purchase the newly added product.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>Administrator navigates to the product management section within the administration panel.</li> <li>Administrator selects the option to add a new product.</li> <li>Administrator enters the necessary details for the new product, including name, description, price, and any other relevant attributes (e.g., size, color).</li> <li>Administrator uploads images or multimedia assets to showcase the new product.</li> <li>Administrator specifies the product category and any applicable tags or labels for organization and searchability.</li> <li>Administrator sets inventory levels and specifies any variations or options for the product (e.g., different sizes or colors).</li> <li>Administrator confirms the creation of the new product.</li> <li>Platform updates the inventory to include the newly added product, making it available for sale.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>User interface should provide intuitive tools for administrators to add and manage product listings.</li> <li>Platform should support the uploading and display of images and multimedia content to showcase products effectively.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>Database to store and manage product information, including names, descriptions, prices, and inventory levels.</li> <li>File storage system for storing and serving product images and multimedia assets.</li> <li>Integration with the platform's search and navigation systems to ensure the new product is discoverable</li> </ol>

	to customers.
Frequency of Occurrence:	Moderate - Adding new products to inventory may occur regularly to keep the product catalog up-to-date with market trends and customer demands.
Open Issues:	<ol style="list-style-type: none"> <li>1. Implementing mechanisms for reviewing and approving new product listings to maintain quality and consistency.</li> <li>2. Monitoring inventory levels and sales performance of new products to inform future product management decisions</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the entered product details are incomplete or invalid, prompt the administrator to provide the required information or correct any errors.</li> <li>2. If the new product has variations or options, provide options for configuring and managing them within the product listing.</li> </ol>

## 2.12 ADMIN Remove a product category

Use Case ID:	UC-012
Use Case Name:	Remove a Product Category
Scope:	E-commerce platform administration
Level:	Administrator goal
Primary Actor:	Administrator
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Administrator: Interested in maintaining a well-organized and up-to-date product catalog by removing obsolete or redundant product categories.</li> <li>2. Merchants/Sellers: Interested in ensuring their products remain appropriately categorized for visibility and organization.</li> <li>3. Customers: Interested in easily navigating and finding products within relevant categories.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. Administrator is logged into the administration panel of the e-commerce platform.</li> </ol>



	<ol style="list-style-type: none"> <li>The platform is operational and accessible.</li> <li>There is a need to remove a product category from the existing product catalog.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>The specified product category is successfully removed from the platform's product catalog.</li> <li>Products previously assigned to the removed category are re-categorized or remain accessible within alternative categories.</li> <li>Customers can still access and purchase products that were previously categorized under the removed category.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>Administrator navigates to the category management section within the administration panel.</li> <li>Administrator selects the option to remove a product category.</li> <li>Administrator selects the category to be removed from the list of existing categories.</li> <li>Administrator confirms the removal of the selected category.</li> <li>Platform updates the product catalog to exclude the removed category.</li> <li>Products previously assigned to the removed category are re-categorized or remain accessible within alternative categories.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>User interface should provide clear warnings and confirmations to prevent accidental removal of important categories.</li> <li>Platform should ensure that products remain accessible and discoverable after the removal of a category, either by re-categorizing them or preserving their accessibility within other relevant categories.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>Database to store and manage category information, including names, descriptions, and relationships with products.</li> <li>Administrative tools for reassigning products to alternative categories and updating category structures.</li> <li>Integration with the platform's search and navigation systems to ensure continuity in product accessibility and discoverability.</li> </ol>

Frequency of Occurrence:	Low to moderate - Removing product categories typically occurs infrequently and is usually done as part of periodic catalog maintenance or restructuring efforts.
Open Issues:	<ol style="list-style-type: none"> <li>1. Implementing mechanisms for reviewing and approving category removal requests to prevent unintended consequences.</li> <li>2. Communicating category removals to merchants/sellers to ensure they are aware of any changes impacting their product listings.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the selected category contains subcategories or products, prompt the administrator to reassign them to alternative categories or remove them altogether.</li> <li>2. If the removed category is associated with any existing promotions or marketing campaigns, update or remove them accordingly to avoid inconsistencies.</li> </ol>

## 2.13 ADMIN Check the inventory levels of each product

Use Case ID:	UC-013
Use Case Name:	Check Inventory Levels of Each Product
Scope:	E-commerce platform administration
Level:	Administrator goal
Primary Actor:	Administrator
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Administrator: Interested in monitoring and managing inventory levels to ensure adequate stock availability and prevent stockouts or overstocking.</li> <li>2. Merchants/Sellers: Interested in receiving guidance and support from administrators regarding inventory management to optimize sales and fulfillment.</li> <li>3. Customers: Interested in accurate and up-to-date information on product availability to inform their purchasing decisions.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. Administrator is logged into the administration panel of the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. There is a need to assess the current inventory</li> </ol>

	levels of products.
Post Conditions :	<ol style="list-style-type: none"> <li>1. Administrator successfully checks the inventory levels of each product on the platform.</li> <li>2. Inventory data is accurate and up-to-date, reflecting the availability of products for sale.</li> <li>3. Any necessary actions or decisions regarding inventory management are made based on the assessment.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. Administrator navigates to the inventory management section within the administration panel.</li> <li>2. Administrator selects the option to view inventory levels or access inventory reports.</li> <li>3. Platform displays a list of products along with their corresponding inventory levels.</li> <li>4. Administrator reviews the inventory levels of each product, including current stock quantities and availability status.</li> <li>5. Administrator identifies any products with low inventory levels or impending stockouts.</li> <li>6. Administrator may take necessary actions such as replenishing stock, adjusting product listings, or implementing promotions to manage inventory effectively.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. User interface should provide clear and comprehensive inventory reports, including product names, quantities, and availability status.</li> <li>2. Platform should support real-time or near-real-time updates of inventory data to ensure accuracy and reliability.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Database to store and manage inventory data, including product quantities, availability status, and historical sales data.</li> <li>2. Reporting and analytics tools for generating inventory reports and insights into stock levels and trends.</li> <li>3. Integration with the platform's order management and fulfillment systems to facilitate inventory management actions such as stock replenishment and order processing.</li> </ol>
Frequency of Occurrence:	High - Inventory monitoring is an ongoing task essential for maintaining smooth operations and ensuring customer

	satisfaction.
Open Issues:	<ol style="list-style-type: none"> <li>1. Implementing automated alerts or notifications for administrators to proactively address low inventory levels or other inventory-related issues.</li> <li>2. Continuous optimization of inventory management processes and strategies based on analysis of inventory data and performance metrics.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If the inventory data is outdated or inaccurate, administrator may initiate a manual inventory update or investigation to reconcile discrepancies.</li> <li>2. If certain products consistently experience high demand or low availability, administrator may adjust inventory management strategies or reorder quantities to meet demand.</li> </ol>

## 2.14 ADMIN Modify the price of products in different categories

Use Case ID:	UC-014
Use Case Name:	Modify the Price of Products in Different Categories
Scope:	E-commerce platform administration
Level:	Administrator goal
Primary Actor:	Administrator
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>1. Administrator: Interested in adjusting product prices to maintain competitiveness, maximize profitability, and respond to market conditions.</li> <li>2. Merchants/Sellers: Interested in receiving guidance and support from administrators regarding pricing strategies to optimize sales and revenue.</li> <li>3. Customers: Interested in fair and competitive pricing for products to make informed purchasing decisions.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>1. Administrator is logged into the administration panel of the e-commerce platform.</li> <li>2. The platform is operational and accessible.</li> <li>3. There is a need to modify the prices of products across different categories.</li> </ol>

Post Conditions :	<ol style="list-style-type: none"> <li>1. Administrator successfully modifies the prices of products in different categories as needed.</li> <li>2. Product prices are updated and accurately reflected on the platform.</li> <li>3. Pricing adjustments are made in alignment with business objectives and market dynamics.</li> </ol>
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. Administrator navigates to the product management section within the administration panel.</li> <li>2. Administrator selects the option to manage product prices or access pricing settings.</li> <li>3. Platform displays a list of product categories or individual products along with their current prices.</li> <li>4. Administrator selects the category or products for which prices need to be modified.</li> <li>5. Administrator enters the new prices or adjusts the existing prices as needed.</li> <li>6. Administrator reviews the pricing changes and confirms the modifications.</li> <li>7. Platform updates the prices of the selected products or categories accordingly.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. User interface should provide intuitive tools for administrators to modify product prices efficiently and accurately.</li> <li>2. Platform should support bulk price updates for products within specific categories or based on predefined criteria.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Database to store and manage product pricing data, including current prices, historical prices, and pricing rules.</li> <li>2. Reporting and analytics tools for generating insights into pricing trends, competitor pricing, and market dynamics.</li> <li>3. Integration with the platform's order management and fulfillment systems to ensure pricing changes are reflected in order processing and invoicing.</li> </ol>
Frequency of Occurrence:	Moderate to high - Price modifications may occur regularly in response to changes in market conditions, supplier costs, or business strategies.
Open Issues:	<ol style="list-style-type: none"> <li>1. Implementing pricing algorithms or rules to automate pricing adjustments based on predefined criteria or triggers.</li> </ol>

	<ol style="list-style-type: none"> <li>Monitoring and analyzing the impact of pricing changes on sales, revenue, and customer satisfaction to refine pricing strategies over time.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>If the pricing changes are based on market research or competitive analysis, administrator may consult relevant data or reports to inform pricing decisions.</li> <li>If certain pricing changes require approval or review by higher-level authorities, administrator may submit the proposed changes for consideration before finalizing them.</li> </ol>

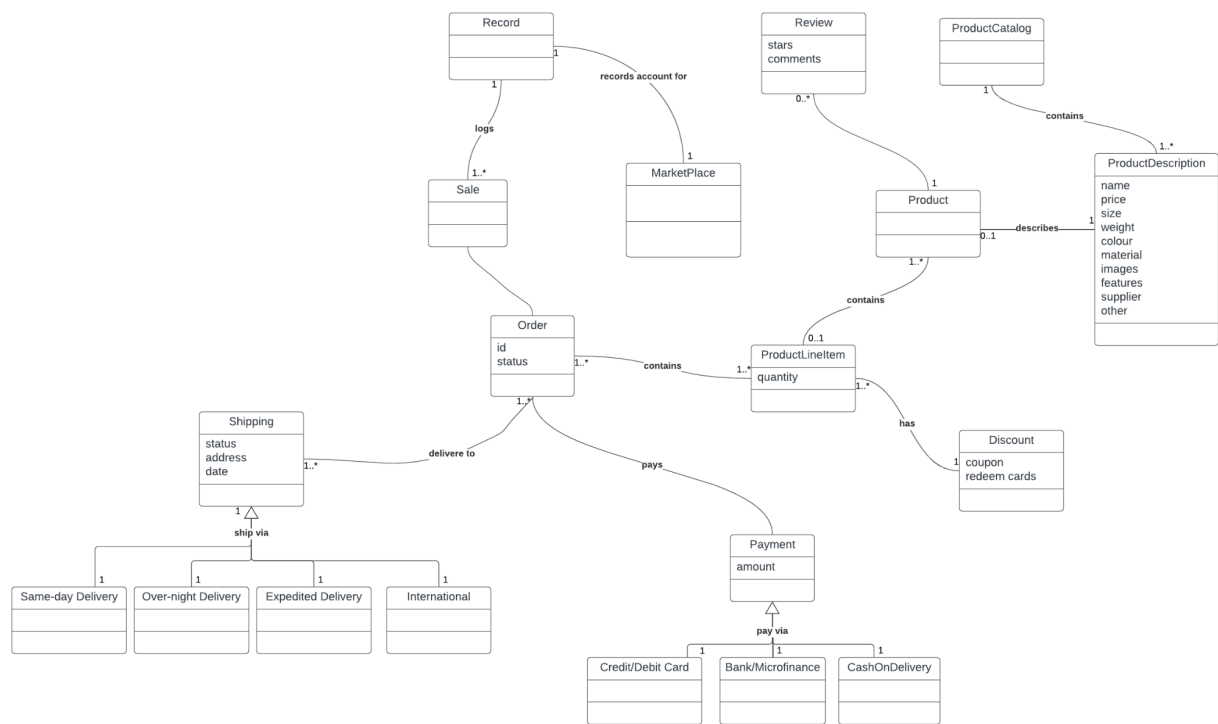
## 2.15 ADMIN Cancel order (if the customer does not respond)

Use Case ID:	UC-015
Use Case Name:	Cancel Order (If Customer Does Not Respond)
Scope:	E-commerce platform administration
Level:	Administrator goal
Primary Actor:	Administrator
Stakeholders and Interests:	<ol style="list-style-type: none"> <li>Administrator: Interested in maintaining order processing efficiency and customer satisfaction by managing orders effectively, including canceling orders when necessary.</li> <li>Customers: Interested in timely and accurate order fulfillment and communication regarding their orders.</li> <li>Customer Support Team: Interested in providing assistance to customers and resolving order-related issues promptly.</li> </ol>
Pre conditions:	<ol style="list-style-type: none"> <li>Administrator is logged into the administration panel of the e-commerce platform.</li> <li>The platform is operational and accessible.</li> <li>There is an order pending with no response from the customer for a significant duration.</li> </ol>
Post Conditions :	<ol style="list-style-type: none"> <li>Administrator successfully cancels the order due to lack of response from the customer.</li> <li>Customer is notified of the order cancellation, if necessary, and any applicable refunds are initiated promptly.</li> <li>Platform's order management system is updated to</li> </ol>

	reflect the canceled order status.
Main Success Scenario:	<ol style="list-style-type: none"> <li>1. Administrator accesses the order management section within the administration panel.</li> <li>2. Administrator identifies the order that requires cancellation due to lack of customer response.</li> <li>3. Administrator reviews the order details to confirm the lack of response and assess the appropriate action.</li> <li>4. Administrator selects the option to cancel the order.</li> <li>5. Platform prompts the administrator to confirm the cancellation and provide a reason, if necessary.</li> <li>6. Administrator confirms the cancellation of the order.</li> <li>7. Platform updates the order status to "Canceled" and initiates any applicable refund processes.</li> <li>8. Customer, if necessary, receives a notification informing them of the order cancellation and refund status.</li> </ol>
Special Requirements:	<ol style="list-style-type: none"> <li>1. User interface should provide clear indicators of orders that require attention due to lack of customer response or other issues.</li> <li>2. Platform should support automated notifications to customers regarding order cancellations and refund processes to maintain transparency and communication.</li> </ol>
Technology and Data Variations List:	<ol style="list-style-type: none"> <li>1. Order management system to track and manage order statuses, including cancellations and refunds.</li> <li>2. Integration with payment processing systems to initiate refunds for canceled orders.</li> <li>3. Communication channels for sending notifications to customers regarding order cancellations and refund processes.</li> </ol>
Frequency of Occurrence:	Low to moderate - Order cancellations due to lack of customer response may occur occasionally, depending on factors such as order volume and customer communication preferences.
Open Issues:	<ol style="list-style-type: none"> <li>1. Implementing automated reminders or notifications to prompt customers for response before initiating order cancellations.</li> <li>2. Monitoring and analyzing trends in order cancellations to identify potential areas for process optimization or customer communication improvements.</li> </ol>
Extensions:	<ol style="list-style-type: none"> <li>1. If there is uncertainty regarding the lack of response</li> </ol>

	<p>or if there are special circumstances related to the order, administrator may initiate further investigation or contact the customer support team for assistance.</p> <p>2. If the order has already been dispatched or partially fulfilled, administrator may need to assess additional steps such as initiating a return process for the delivered items.</p>
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### 3. Domain Model:



**Links:**

**Domain: Lucidchart**

**Use case: Lucidchart**