

# **Software Requirements Specification**

**for**

## **Cloth Connect Pro**

An Online Business Platform Where doing business as a middlemen between customer & suppliers

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## 1. Introduction

Welcome to Cloth Connect Pro, where we redefine the export cloth business model by eliminating the need for upfront investment. Serving as the intermediary between customers and suppliers, we facilitate seamless transactions, allowing us to generate profits without financial commitment. Our innovative approach ensures lucrative opportunities for all involved, revolutionizing the industry and redefining success without capital constraints.

### 1.1 Problem Statement

In Cloth Connect Pro, the absence of an automated system for managing cloth transactions between customers and suppliers results in inefficiencies and inaccuracies. Manual processes hinder inventory tracking and make it difficult to locate specific cloth items, leading to operational challenges. To overcome these obstacles, our team aims to develop a web-based cloth management system during the SPL II period. This system will streamline operations, reduce errors, and enhance efficiency by facilitating remote cloth requests, tracking borrowing history, and storing electronic copies of cloth designs with appropriate permissions.

### 1.2 Purpose

The main purpose in our project, Cloth Connect Pro, is to establish a profitable export cloth business model as a middleman between customers and suppliers, all without the need for upfront investment. By leveraging your intermediary position, the aim is to facilitate seamless transactions, generate revenue, and foster successful partnerships between customers and suppliers. This innovative approach allows for profit generation while minimizing financial risk and capital requirements. Overall, the project aims to revolutionize the cloth trading industry by providing a user-friendly and efficient solution for all stakeholders involved.

### 1.3 Project Scope

The project scope aims to enhance the efficiency, accessibility, and user experience within the cloth trading ecosystem, ultimately revolutionizing the industry by providing a robust and user-friendly platform for both customers and suppliers.

- **Instant Cloth Search:**  
Users can swiftly search for specific cloth items using various filters and keywords, ensuring efficient browsing and selection of desired products.
- **Transactional Capabilities:**  
Users can initiate and complete cloth transactions, including placing orders, confirming purchases, and managing payments, all within the platform.
- **Remote Cloth Request:**  
Users have the option to remotely request specific cloth items, allowing for convenient access to desired products without physical presence at the supplier's location.
- **Profile Management:**  
Users can access and manage their profiles within the platform, enabling them to track transaction history, monitor order status, and view any outstanding dues or pending requests.
- **Request for New Cloth Items:**  
Users can submit requests for the addition of new cloth items to the platform, allowing for continuous expansion and diversification of available products.
- **Integration of Electronic Cloth Copies:**  
The system supports the storage and access of electronic copies of cloth designs, subject to permissions from suppliers and copyright regulations.

### 1.4 Glossary

This section provides definitions for all document names, acronyms, and abbreviations. The application domain's terms and concepts are defined.

HTML – Hyper Text Markup Language

JS – JavaScript

CSS – Cascading Style Sheets

PHP – Hypertext Preprocessor  
XML – Extensible Markup Language  
SRS – Software Requirement Specification  
UI – User Interface  
API – Application Programming Interface  
MB – Megabytes

## 1.5 References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

## 1.6 Overview

Cloth Connect Pro is a cutting-edge web platform revolutionizing cloth trading without upfront investment. Through innovative features like remote requests, it streamlines the entire cloth transaction process. Leveraging technologies such as HTML, JavaScript, and PHP, it ensures a dynamic and user-friendly experience. With multi-library compatibility and integrated electronic cloth copies, Cloth Connect Pro redefines efficiency in the cloth trading industry. This project aims to provide a seamless and accessible platform for both customers and suppliers, shaping the future of cloth transactions.

## 2. Stakeholders and Characteristics

### 2.1 Customers:

- Individuals and businesses interested in purchasing cloth items through Cloth Connect Pro.
- End-users who directly interact with the platform to browse, select, and purchase cloth items. Demographics include customers from various regions and backgrounds seeking diverse cloth products.

### 2.2 Suppliers:

- Cloth manufacturers, wholesalers, and retailers who provide cloth items for sale on Cloth Connect Pro.
- Teams involved in cloth production and distribution within partnering organizations. Suppliers may range from local artisans to large-scale textile manufacturers, contributing to the platform's diverse cloth inventory.

## 3. Design and Implementation Constraints

To ensure project success, we've identified design and implementation limitations. These constraints encompass the following:

### 3.1 Language:

User Interface Design: This involves the visual layout of Cloth Connect Pro, focusing on UI components for user interaction.

Back-end Development: The code that drives the functionality of the platform, including data storage and processing, remains hidden from users.

### 3.1.1 HTML:

HTML structures web pages and their content, defining elements such as paragraphs, headings, links, and forms.

### 3.1.2 CSS:

CSS dictates the presentation of HTML or XML documents, ensuring consistent styling across different media.

### 3.1.3 Bootstrap (Front-end framework):

Bootstrap provides design templates and extensions for front-end development, enhancing responsiveness and browser compatibility.

### 3.1.4 JavaScript:

JavaScript adds interactivity to Cloth Connect Pro, making the platform dynamic and engaging for users.

### 3.1.5 PHP:

PHP enables server-side scripting for dynamic web pages, offering a blend of beginner-friendly syntax and advanced features.

## 3.2 Server-Side Technology:

Server-side development encompasses database management, scripting, backend logic, and API integration.

### 3.2.1 Database Server:

MySQL serves as the relational database management system for Cloth Connect Pro, organizing and accessing data efficiently through SQL queries.

## 4. Requirement Specification

All the requirements based on the elicitation process are described in this section.

### 4.1 Functional Requirement

Functional requirements are specifications that describe the system's functions or capabilities from a user's perspective. They outline what the system should do and how it should behave under specific conditions. Functional requirements are typically expressed as actions or tasks that the system must perform, and they are crucial for defining the system's behavior and determining its success in meeting user needs.

#### 4.1.1 Browse Item

<b>FR-1</b>	Browse Item
<b>Description</b>	Users should be able to browse through a list of available cloth items.

<b>Stakeholders</b>	Customers, Admin	<b>Priority</b>	High
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#### 4.1.2 Select Item

<b>FR-2</b>	Select Item		
<b>Description</b>	Users should be able to select a cloth item to view its details.		
<b>Stakeholders</b>	Customers	<b>Priority</b>	High

#### 4.1.3 Remote Request

<b>FR-3</b>	Remote Request		
<b>Description</b>	Customers should be able to request cloth items remotely.		
<b>Stakeholders</b>	Customers	<b>Priority</b>	Medium

#### 4.1.4 Manage Inventory

<b>FR-4</b>	Manage Inventory		
<b>Description</b>	Suppliers should be able to manage the inventory of cloth items.		
<b>Stakeholders</b>	Suppliers, Admin	<b>Priority</b>	High

#### 4.1.5 Communication

<b>FR-5</b>	Communication		
<b>Description</b>	Users, suppliers, and administrators should be able to communicate within the platform.		
<b>Stakeholders</b>	Customers, Suppliers, Admin	<b>Priority</b>	High



#### 4.1.6 Order Status

<b>FR-6</b>	Order Status		
<b>Description</b>	Users should be able to check the status of their orders.		
<b>Stakeholders</b>	Customers	<b>Priority</b>	Medium

#### 4.1.7 Transaction Status

<b>FR-7</b>	Transaction Status		
<b>Description</b>	Users should be able to check the status of their transactions.		
<b>Stakeholders</b>	Customers, Admin	<b>Priority</b>	Medium

#### 4.1.8 Feedback & Reviews

<b>FR-8</b>	Feedback & Reviews		
<b>Description</b>	Users should be able to provide feedback and reviews for cloth items.		
<b>Stakeholders</b>	Customers, Admin, Suppliers	<b>Priority</b>	Low

### 5. Requirement Engineering Process

Software requirements are established using requirements engineering (RE), which involves understanding and capturing customer needs or requirements. The requirements engineering process includes several key steps:

- Requirement elicitation techniques
- Requirement validation

#### 5.1 Requirement elicitation techniques

Requirement elicitation, also known as "requirement gathering," is the process of investigating and discovering system requirements from users, clients, and other stakeholders. Various techniques can be employed to elicit requirements effectively:

##### 5.1.1 Hold Interviews

Interviews are one-on-one or small group discussions with stakeholders to gather program criteria. These sessions help in obtaining specific demands from participants and identifying any conflicts or issues.

- Short description about project
- Product details
- Dealing with customer & suppliers
- Transaction & feedback system

### **5.1.2 Perform document Analysis**

Document analysis is a requirement elicitation technique that involves examining existing documentation related to the system to understand its functionalities, constraints, and user requirements. Analysis can help to determine which performance should remain and functionality that isn't in use. This technique is particularly useful for gaining insights into how the current system operates, identifying areas for improvement, and understanding stakeholder needs without directly interacting with them.

## **5.2 Requirement Validation**

Requirement validation is the process of ensuring that the identified requirements accurately represent the needs and expectations of stakeholders and are feasible to implement within the system. It involves verifying that the requirements are complete, consistent, unambiguous, and aligned with the project goals and constraints

### **5.2.1 Review the Requirement**

During the review, potential ambiguities, conflicts, and gaps in the requirements are identified and addressed. Additionally, stakeholders may provide feedback and suggestions for refining or enhancing the requirements. The goal of requirement review is to ensure that the finalized set of requirements forms a solid foundation for the successful development and implementation of the system, minimising the risk of misunderstandings and costly changes later in the project lifecycle.

### **5.2.2 Test the Requirement**

Conducting user acceptance testing (UAT) to validate that the implemented system meets the specified requirements and satisfies the stakeholders' needs. This involves executing test cases based on the requirements and obtaining feedback from end-users.

## 6.a Use Case Diagram

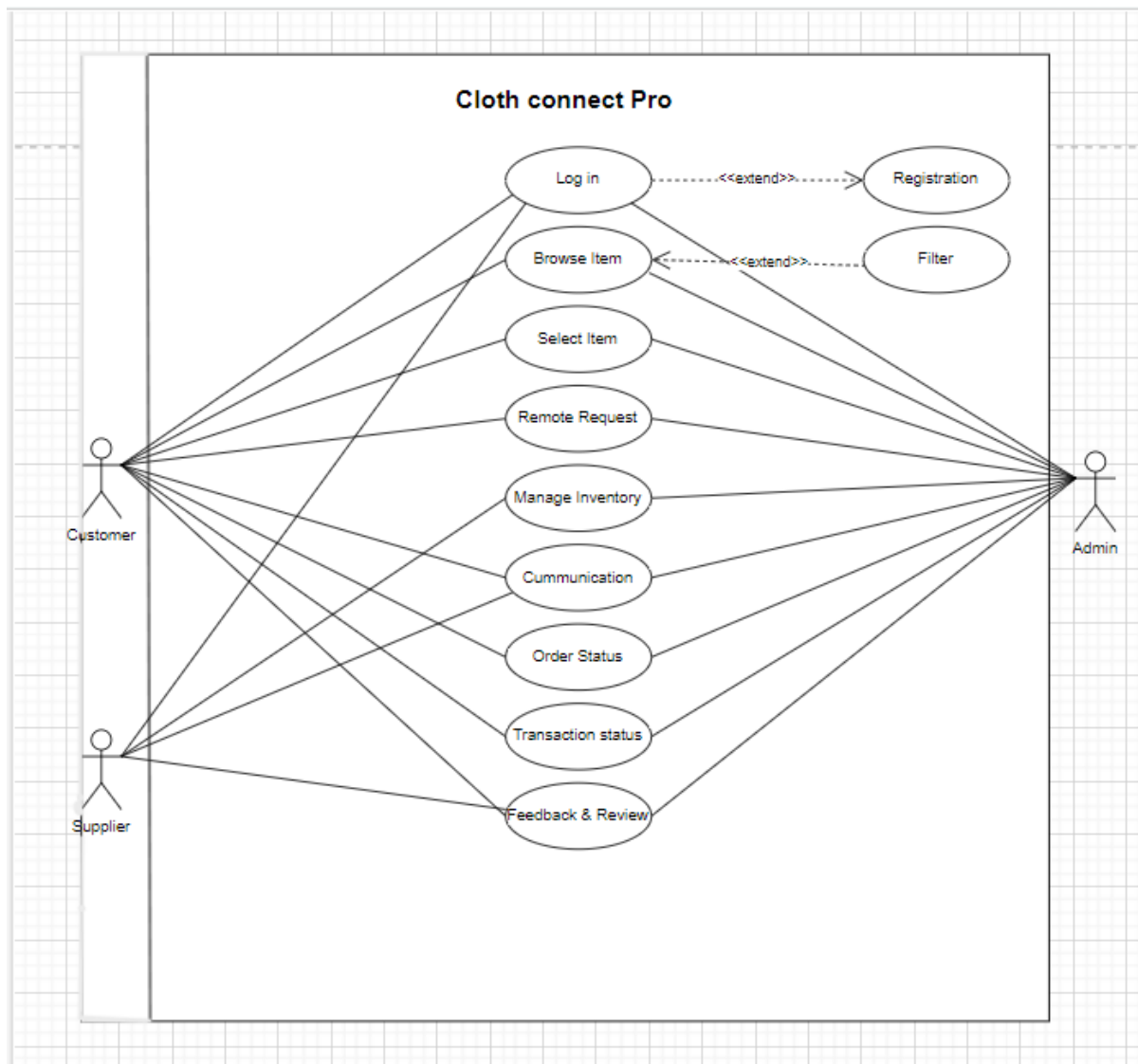


Figure 1: Use Case Diagram

### 6.a.1 Use Case Descriptions

<b>Use case No.</b>	<b>1</b>
Use case	Browse item
Description	Users can explore the available cloth inventory on the platform
Actors	Customers
Preconditions	Customer logged into the platform
Success End Condition	Cloth items matching the search criteria are displayed.
Failed End Condition	Cloth items matching the search criteria are not displayed.
Trigger	Click "Browse item" button.
Basic Flow	<ul style="list-style-type: none"><li>• User navigates to the "Inventory" section.</li><li>• User filters inventory by fabric type, quantity, and price range.</li><li>• User views cloth item listings with relevant details.</li><li>• User can click on individual items for more information.</li></ul>

<b>Use case No.</b>	<b>2</b>
Use case	Select item
Description	Users can select a specific cloth item for further interaction or purchase.
Actors	Customers
Preconditions	User logged into the platform
Success End Condition	The selected cloth item is added to the user's cart.
Failed End Condition	The selected cloth item is out of stock.
Trigger	Click "Select item" button.
Basic Flow	<ul style="list-style-type: none"><li>• User browses the list of cloth items.</li><li>• User clicks on a specific item of interest.</li></ul>

	<ul style="list-style-type: none"> <li>Platform displays detailed information about the selected item.</li> <li>User can proceed to take further actions such as adding to cart or viewing more details.</li> </ul>
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<b>Use case No.</b>	<b>3</b>
Use case	Remote Request
Description	Users can submit a request for a cloth item that is not currently available on the platform.
Actors	Customers.
Preconditions	User logged into the platform
Success End Condition	The requested cloth item is sourced from suppliers and added to the inventory.
Failed End Condition	The requested cloth item cannot be sourced from suppliers.
Trigger	Click "Remote Request" button.
Basic Flow	<ul style="list-style-type: none"> <li>User navigates to the "Request" section.</li> <li>User fills out a form specifying the details of the desired cloth item.</li> <li>User submits the request.</li> <li>Platform notifies the supplier of the request for further action.</li> </ul>

<b>Use case No.</b>	<b>4</b>
Use case	Manage Inventory
Description	Suppliers can manage their cloth inventory listings on the platform.
Actors	Suppliers
Preconditions	Supplier is logged into the platform

Success End Condition	The inventory database is successfully updated.
Failed End Condition	The inventory update process encounters errors or discrepancies.
Trigger	Click “Manage Inventory” button.
Basic Flow	<ul style="list-style-type: none"> <li>• Supplier accesses the inventory management dashboard.</li> <li>• Supplier adds new cloth items to the inventory with details such as fabric type, quantity, and wholesale price.</li> <li>• Supplier updates existing listings with changes such as price adjustments or quantity updates.</li> <li>• Supplier removes listings for cloth items that are no longer available.</li> </ul>

<b>Use case No.</b>	<b>5</b>
Use case	Communication
Description	Users can communicate with suppliers regarding specific cloth items or requests.
Actors	Admin, Customers, Suppliers
Preconditions	User is logged into the platform
Success End Condition	Communication with suppliers or customers is successfully established.
Failed End Condition	Communication with suppliers or customers fails due to technical issues.
Trigger	Click “Communication” button.
Basic Flow	<ul style="list-style-type: none"> <li>• User clicks on a communication option within the platform.</li> <li>• User sends a message to the supplier regarding a specific cloth item or request.</li> <li>• Supplier receives the message and responds accordingly.</li> </ul>

	<ul style="list-style-type: none"> <li>User and supplier can continue the communication until the issue is resolved or the request is fulfilled.</li> </ul>
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<b>Use case No.</b>	<b>6</b>
Use case	Order Status
Description	Users can check the status of their placed orders on the platform.
Actors	Customers
Preconditions	User has placed an order.
Success End Condition	The status of the order is successfully retrieved and displayed to the user.
Failed End Condition	The system cannot retrieve the status of the order due to technical issues.
Trigger	Click "Order Status" button.
Basic Flow	<ul style="list-style-type: none"> <li>User navigates to the "Order Status" section.</li> <li>Platform displays a list of the user's recent orders.</li> <li>User selects a specific order to view detailed status information.</li> <li>Platform provides real-time updates on the order status, including processing, shipping, and delivery.</li> </ul>

<b>Use case No.</b>	<b>7</b>
Use case	Transaction Status
Description	Users can view the status of their transactions on the platform.
Actors	Customers

Preconditions	User is logged into the platform
Success End Condition	The status of the transaction is successfully retrieved and displayed to the user.
Failed End Condition	The system cannot retrieve the transaction status due to technical issues.
Trigger	Click "Transaction Status" button.
Basic Flow	<ul style="list-style-type: none"> <li>User accesses the "Transaction Status" section.</li> <li>Platform displays a list of the user's recent transactions, including purchases, payments, and requests.</li> <li>User can select a specific transaction to view detailed status information.</li> <li>Platform provides updates on the transaction status, including pending, completed, or cancelled.</li> </ul>

<b>Use case No.</b>	<b>8</b>
Use case	Feedback & Reviews
Description	Users can rate the products and provide comments based on their experiences, contributing valuable insights for other users.
Actors	Customers
Preconditions	The user must be logged into their account on Cloth Connect Pro.
Success End Condition	The feedback is successfully submitted and stored in the system.
Failed End Condition	The feedback submission process encounters errors.
Trigger	Click "Feedback & Review" button.
Basic Flow	<ul style="list-style-type: none"> <li>The user navigates to the feedback and reviews section of the cloth item.</li> <li>The user provides a rating for the item, ranging from one to five stars.</li> </ul>



- Optionally, the user may provide comments or a written review describing their experience with the item.
- The user submits the feedback and reviews.

## 6.b Activity Diagram

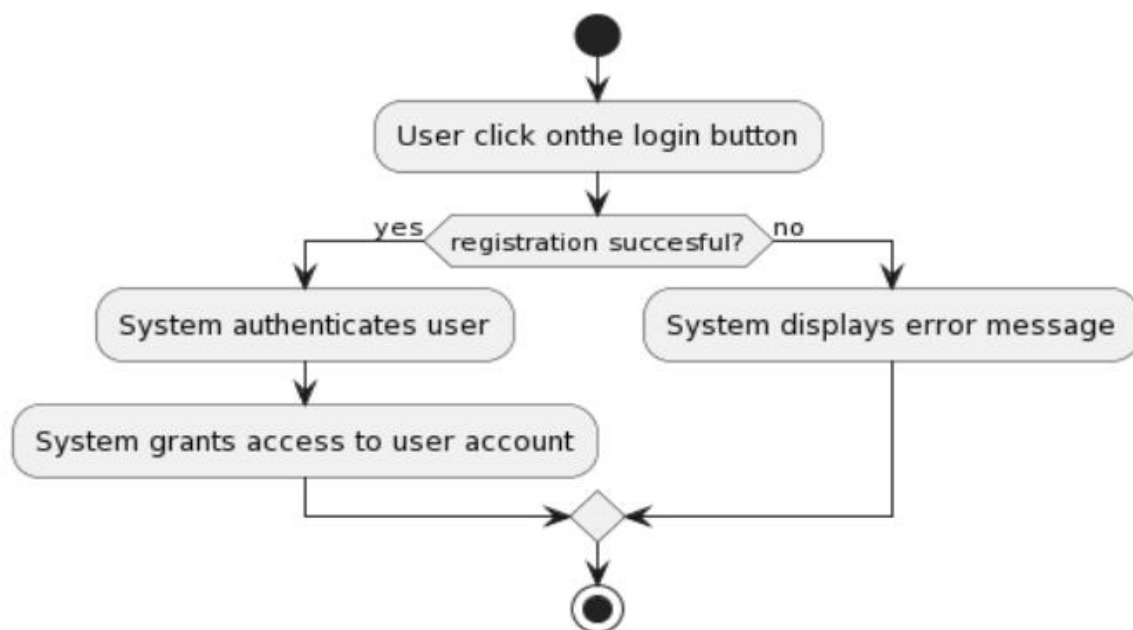


Figure 2: Log in

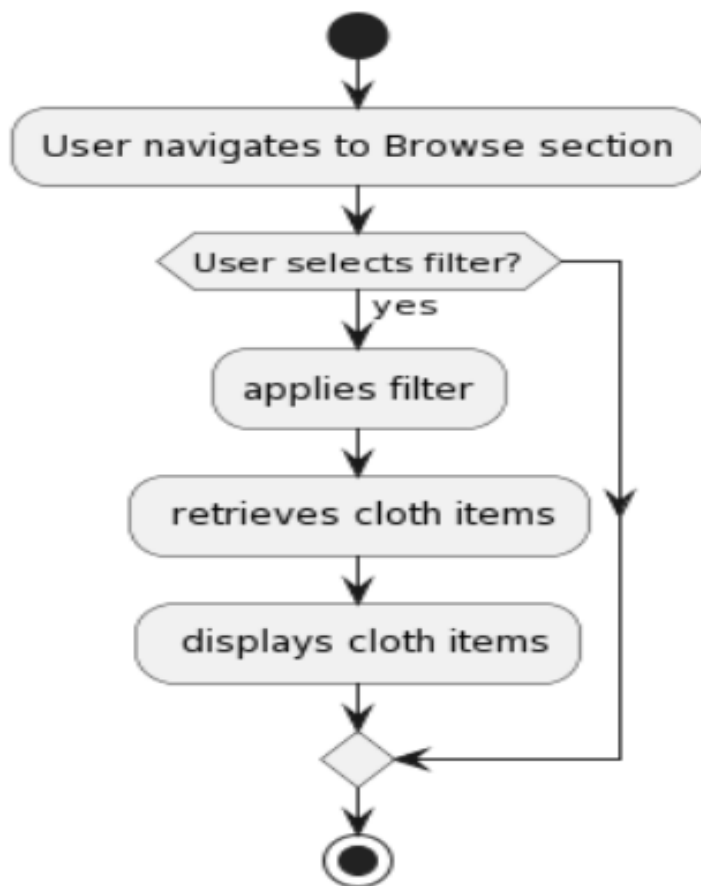


Figure 3: Browse items

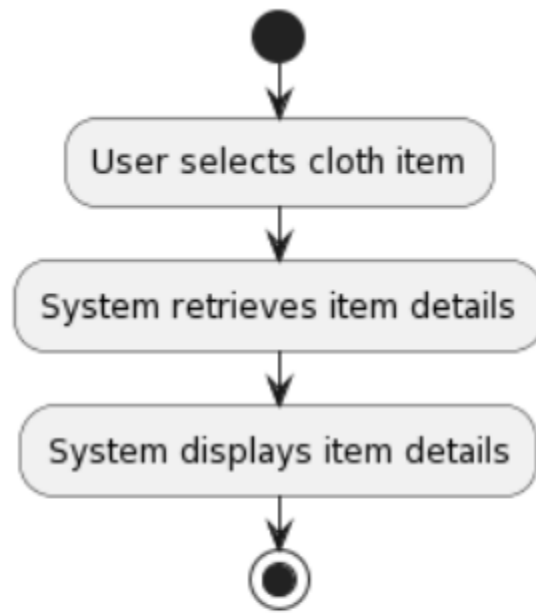
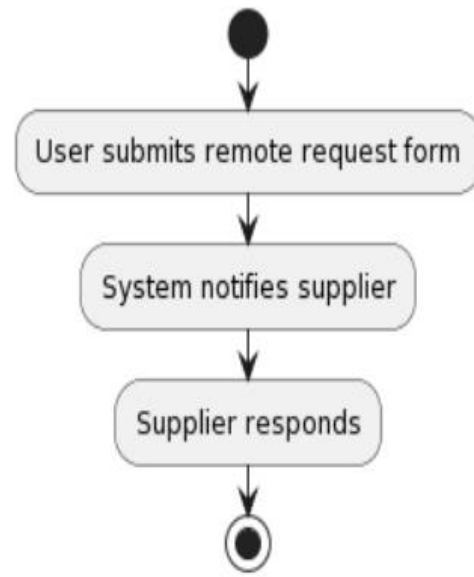


Figure 4: Select Item



*Figure 5: Remote request*

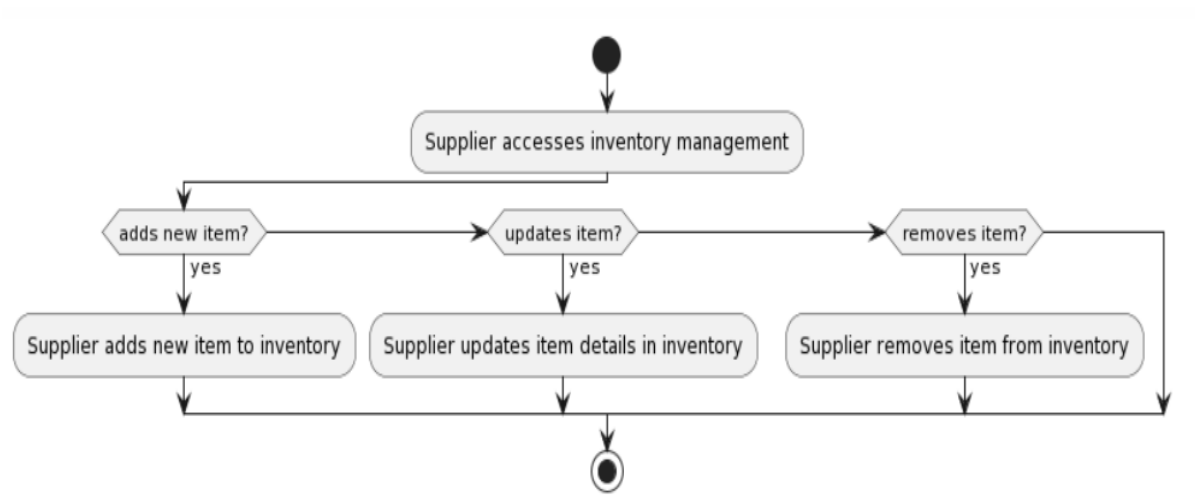


Figure 6: Manage Inventory

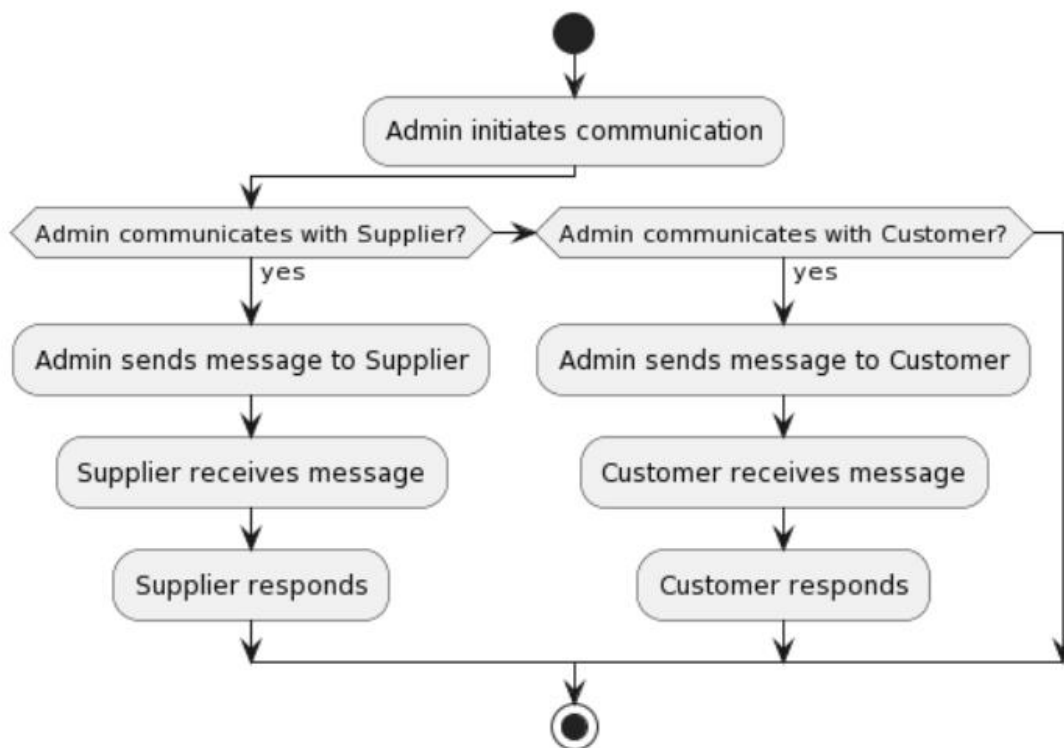


Figure 7: Communication

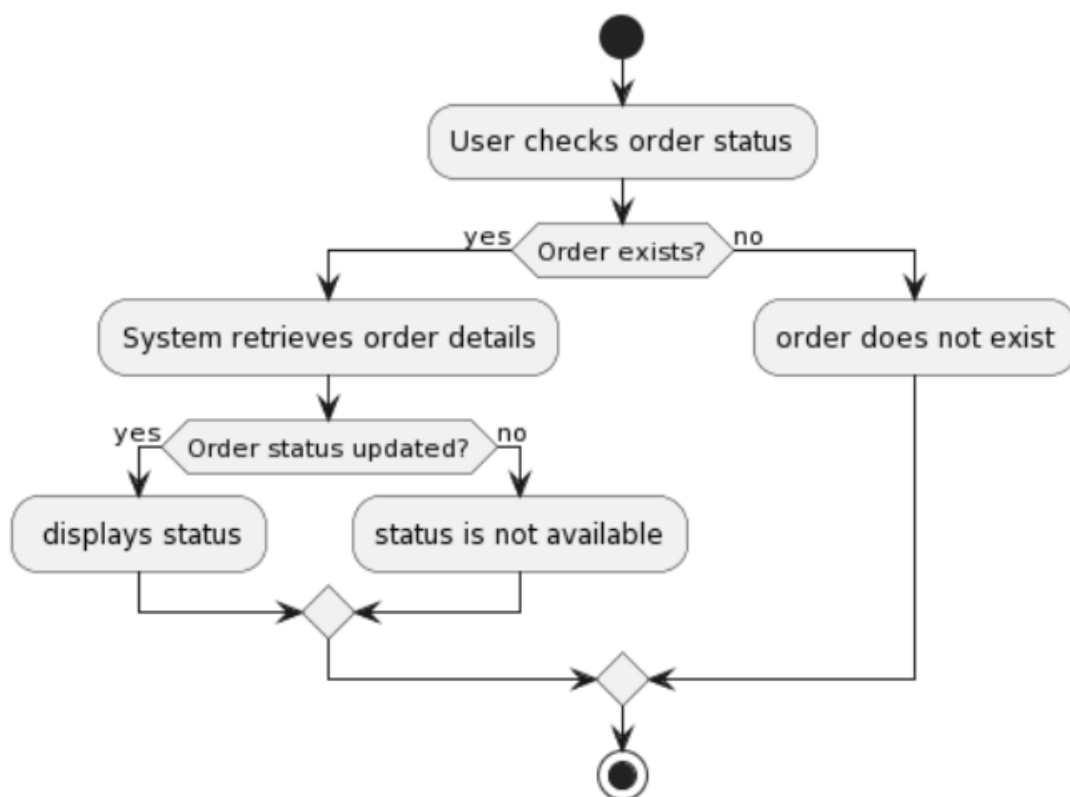


Figure 8: Order status

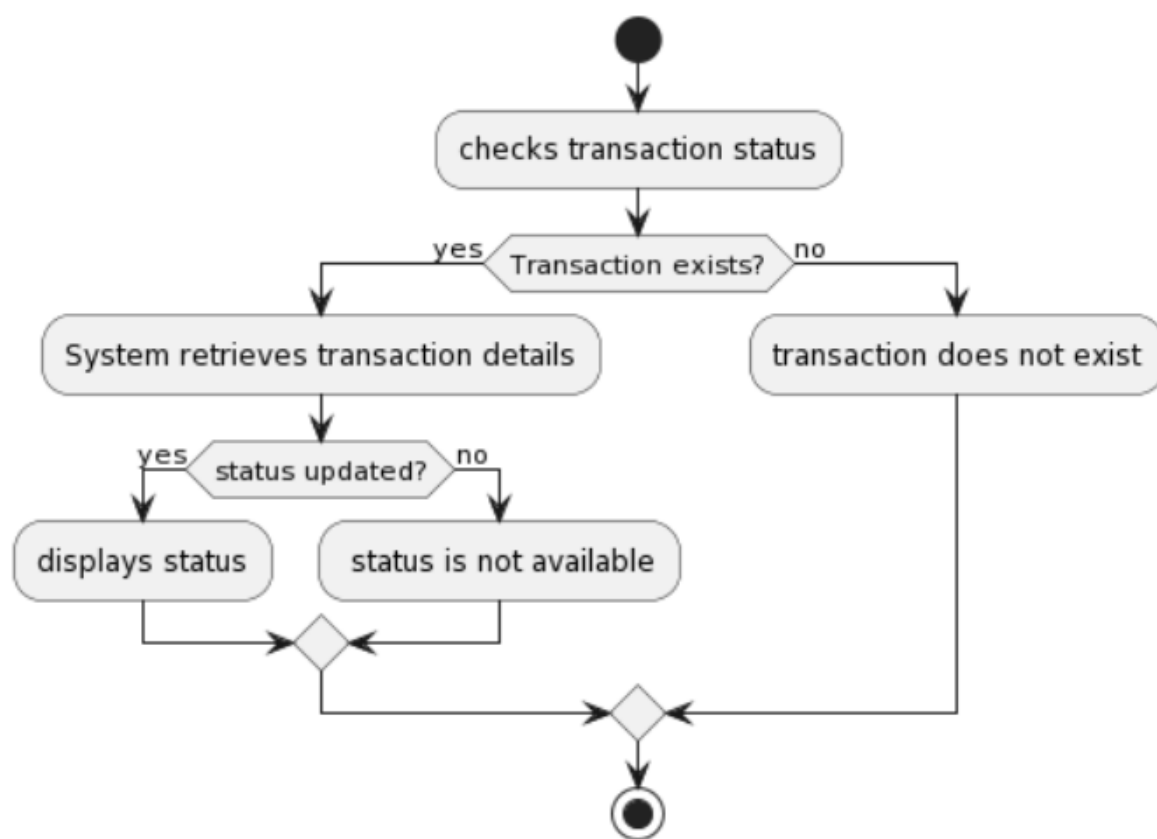


Figure 9: Transaction Status



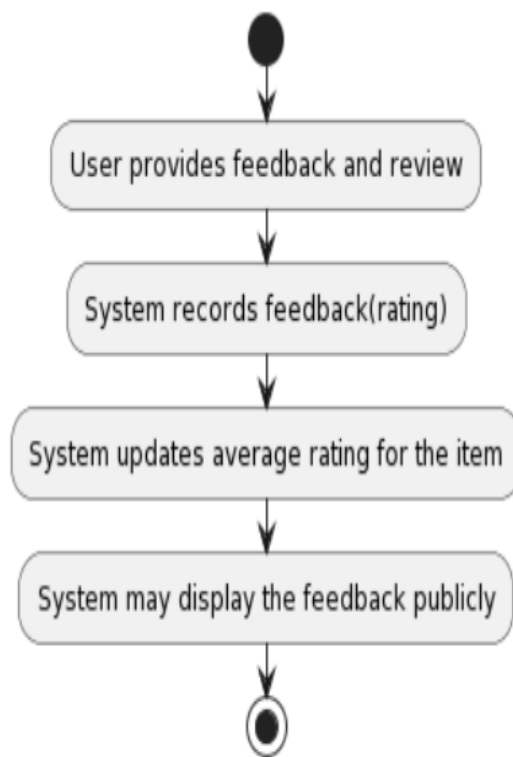


Figure 10: Feedback & Review

### 6.c Swim lane Diagram

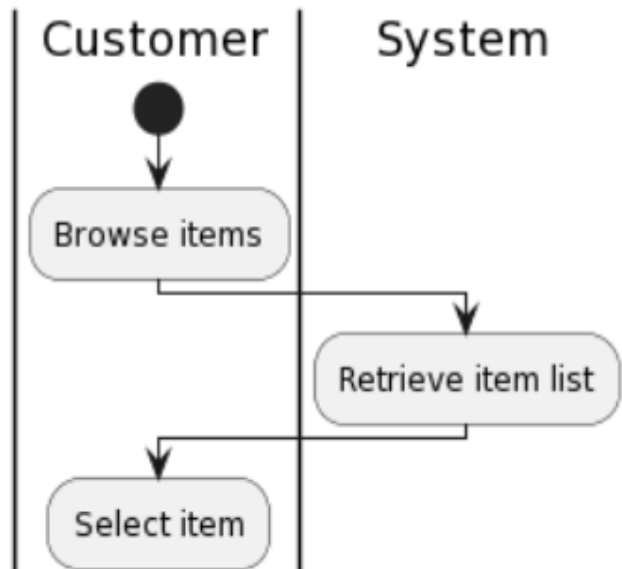


Figure 11: Browse Item

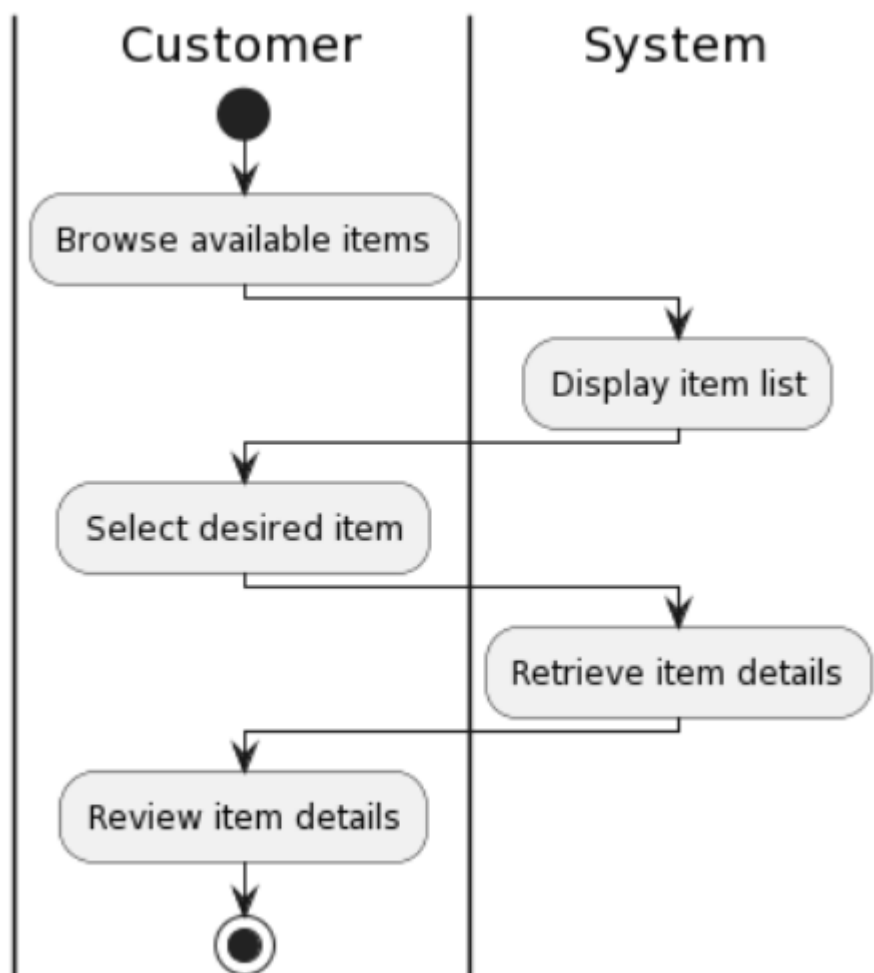
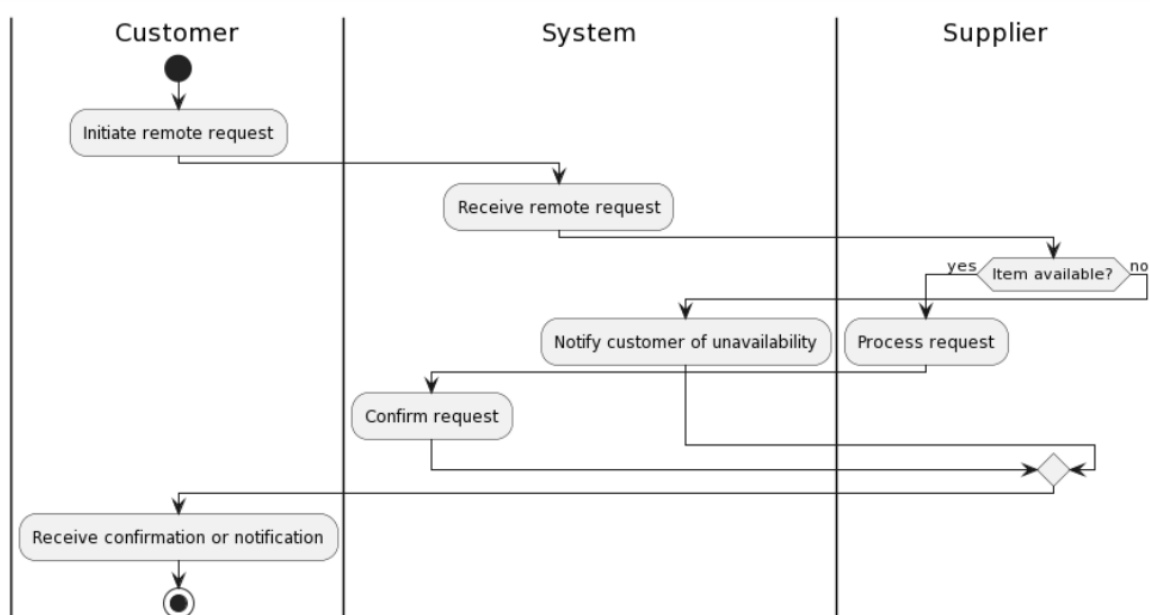


Figure 12: Select Item

*Figure 13: Remote Request*

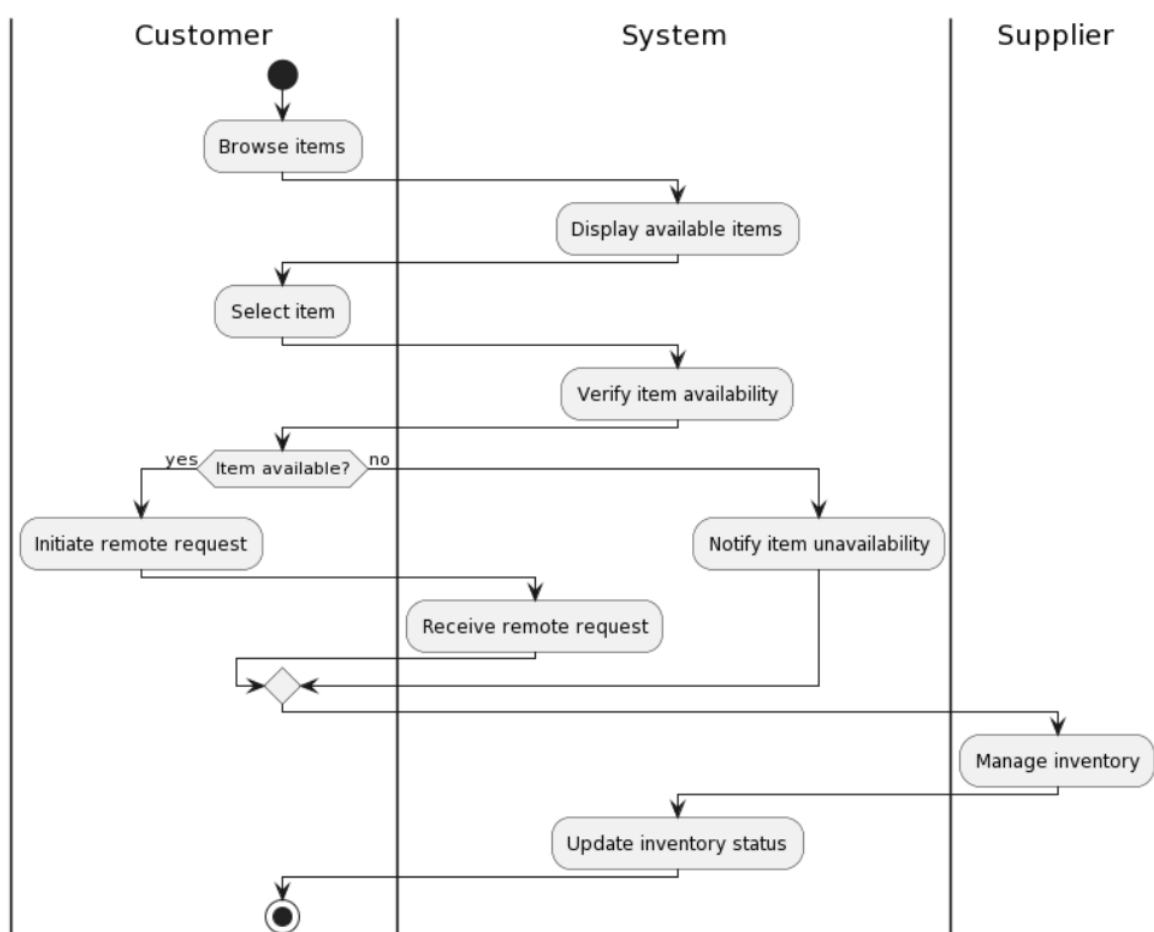


Figure 14: Manage Inventory

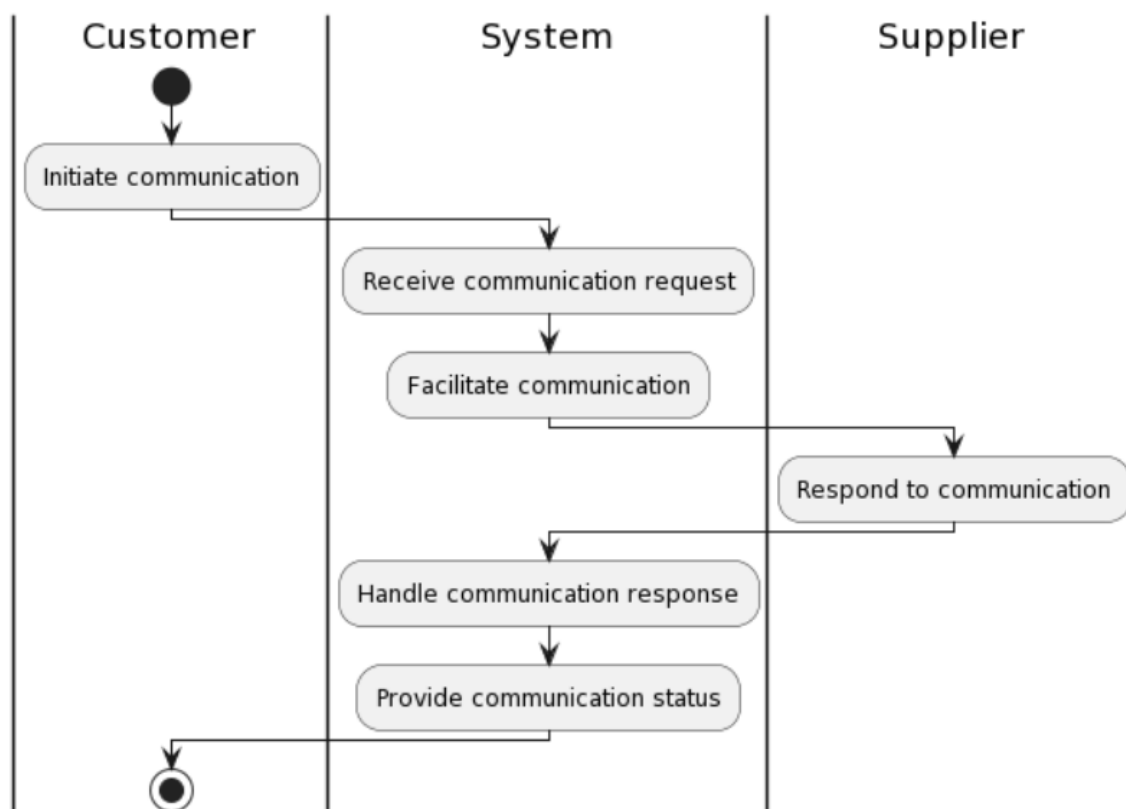


Figure 15: Communication

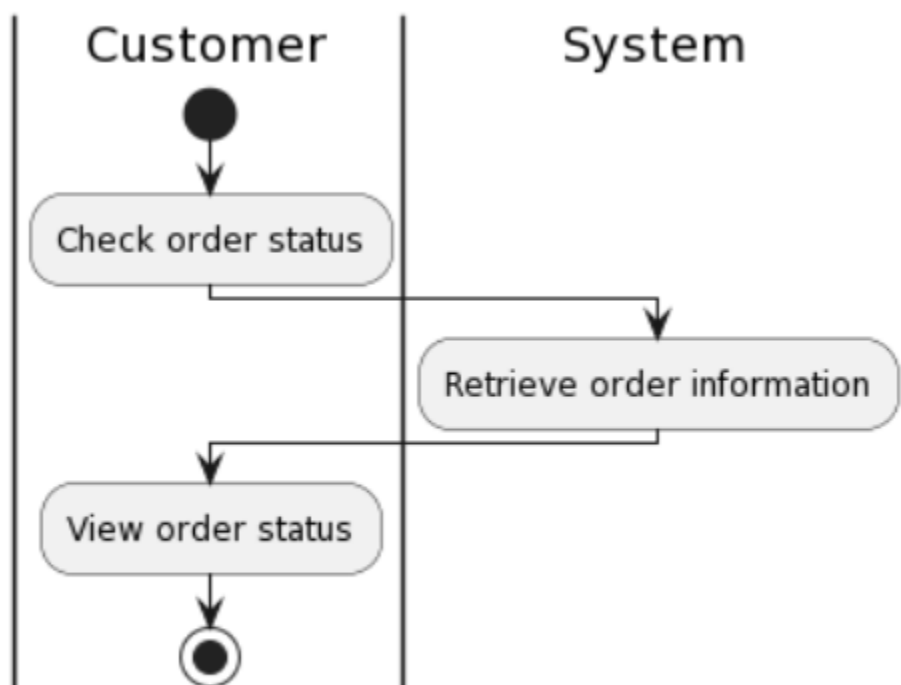


Figure 16: Order Status

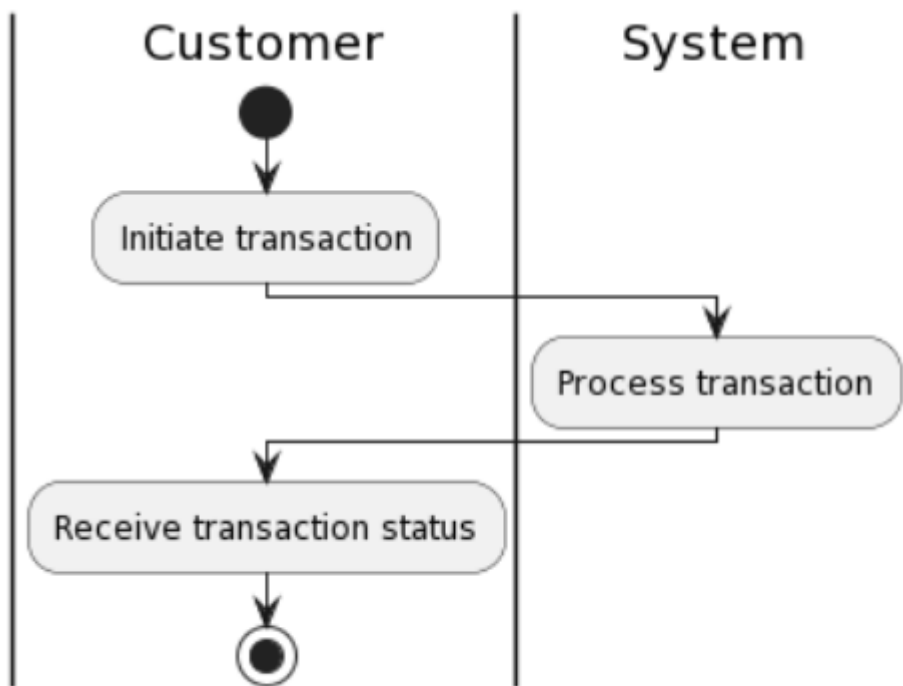


Figure 17: Transaction Status



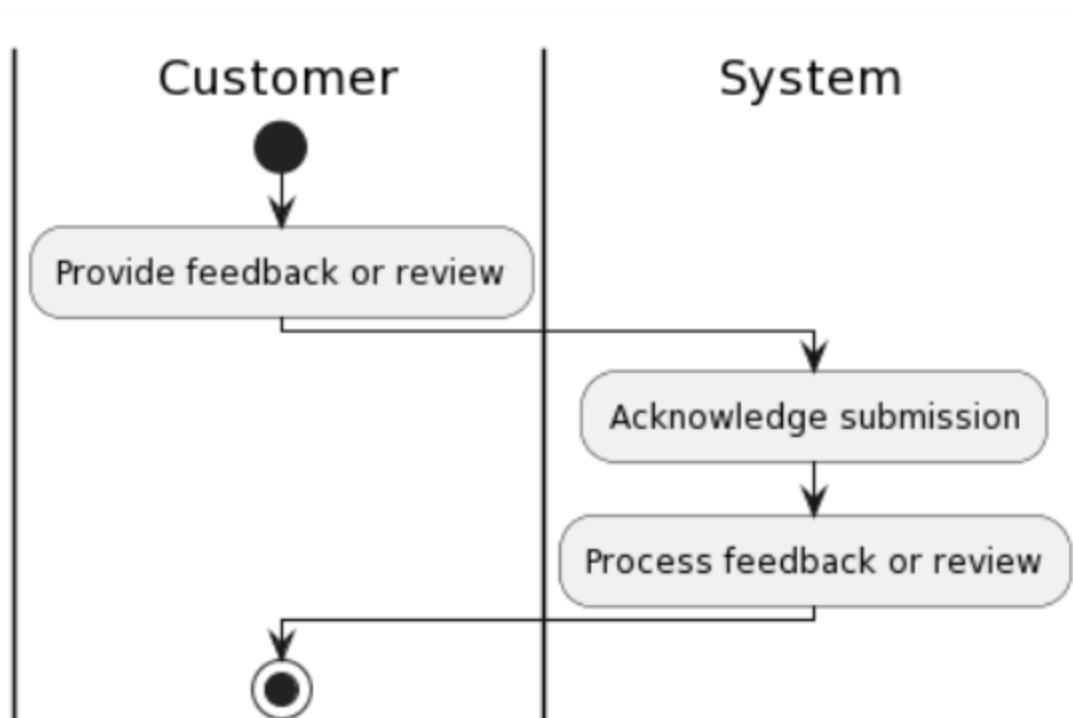


Figure 18: Feedback & Review

#### 6.d State Diagram

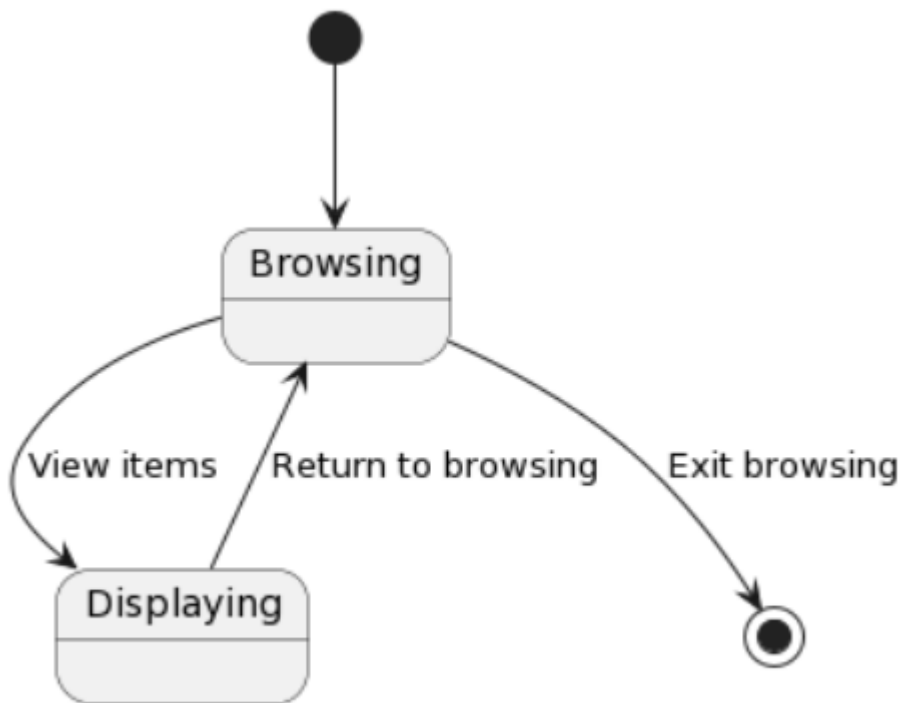


Figure 19: Browse item

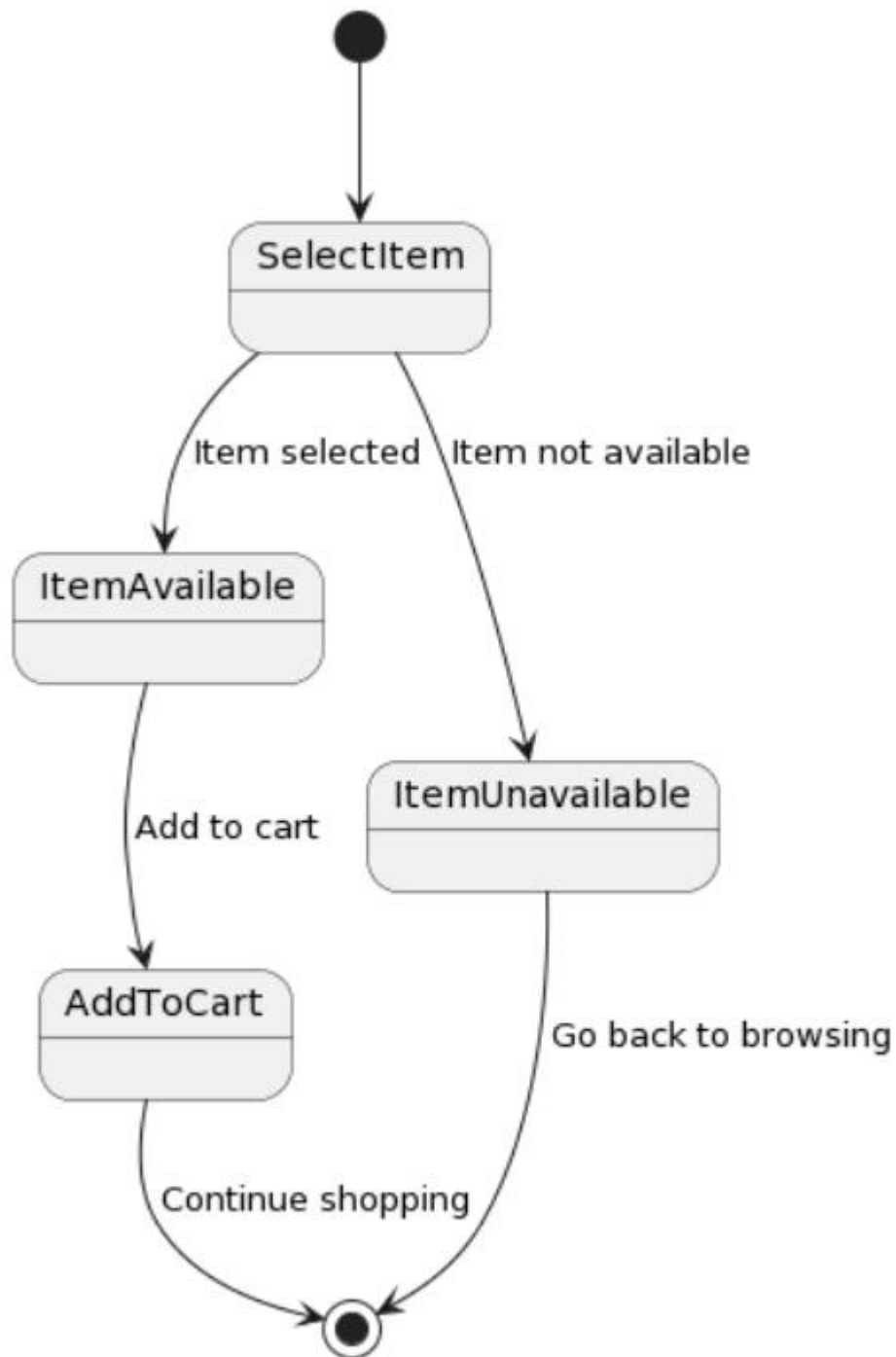


Figure 20: Select Item

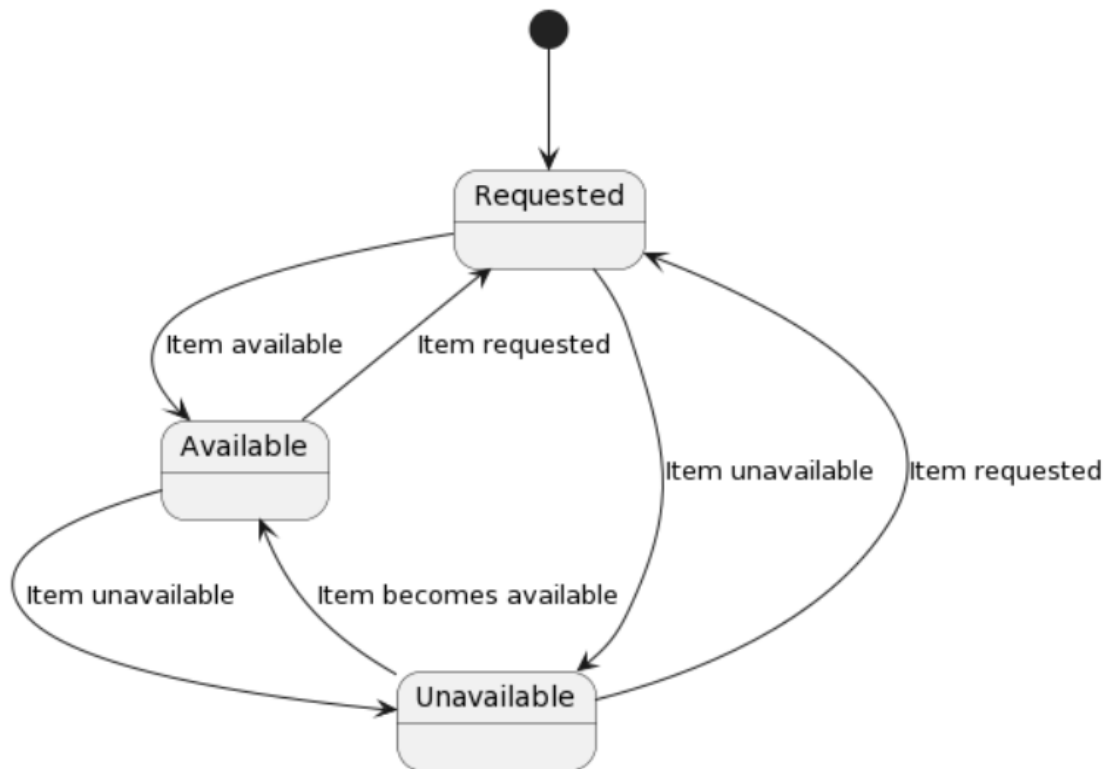


Figure 21: Remote Request

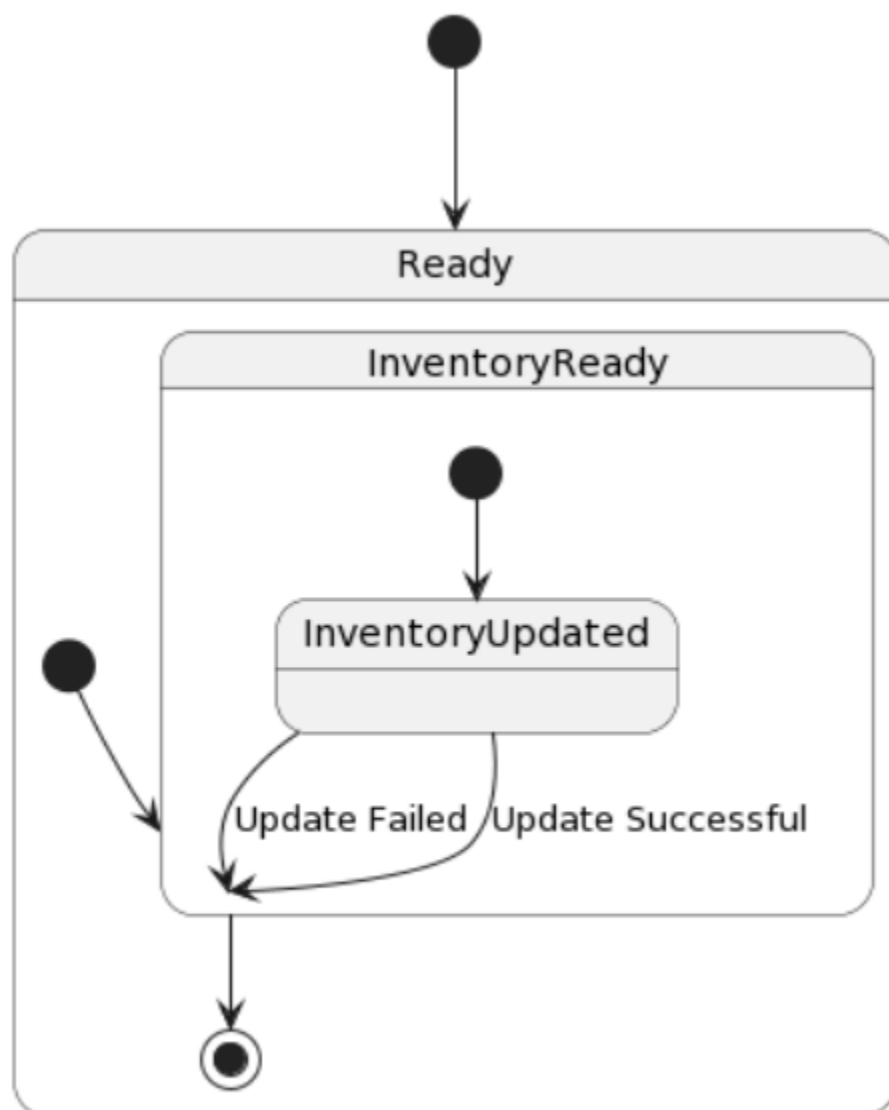


Figure 22: Manage Inventory

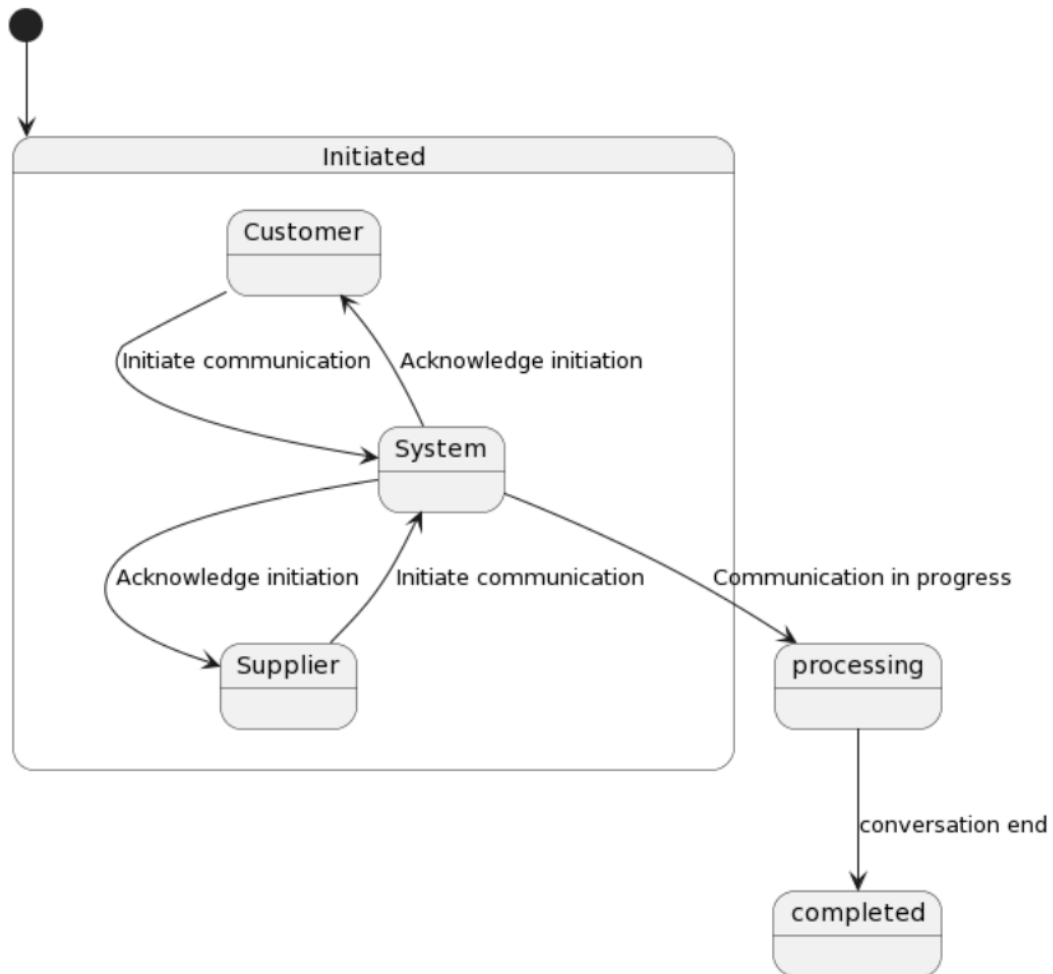


Figure 23: Communication

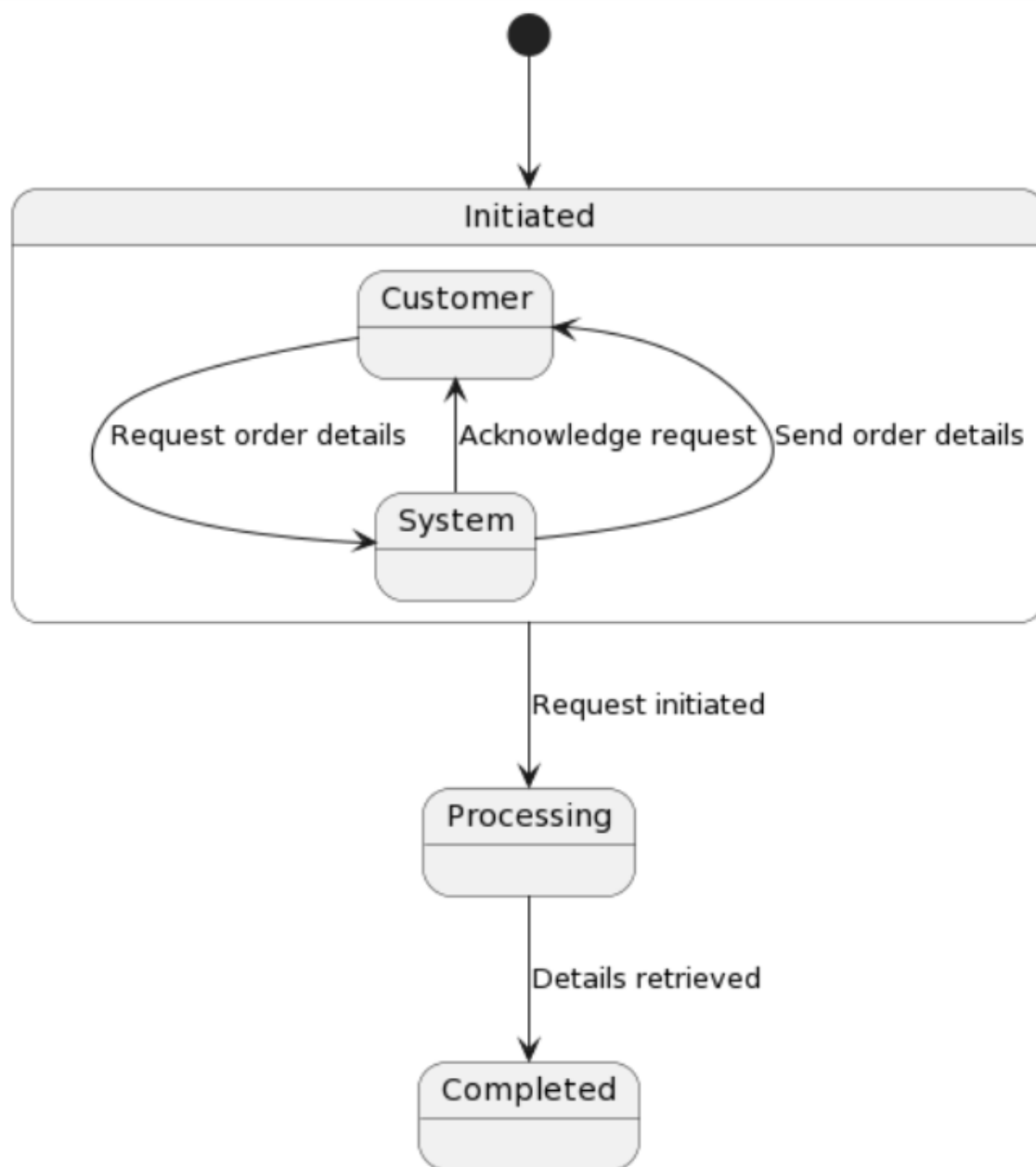


Figure 24: Order Status

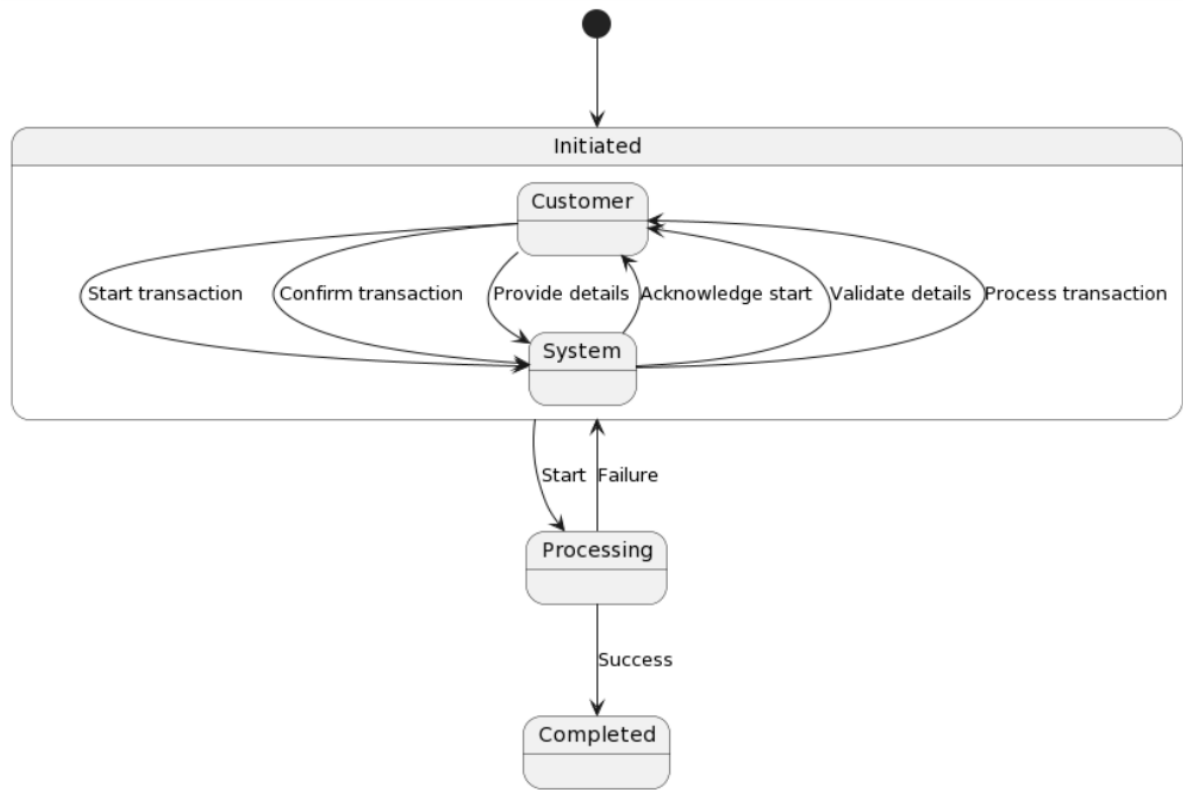


Figure 25: Transaction Status



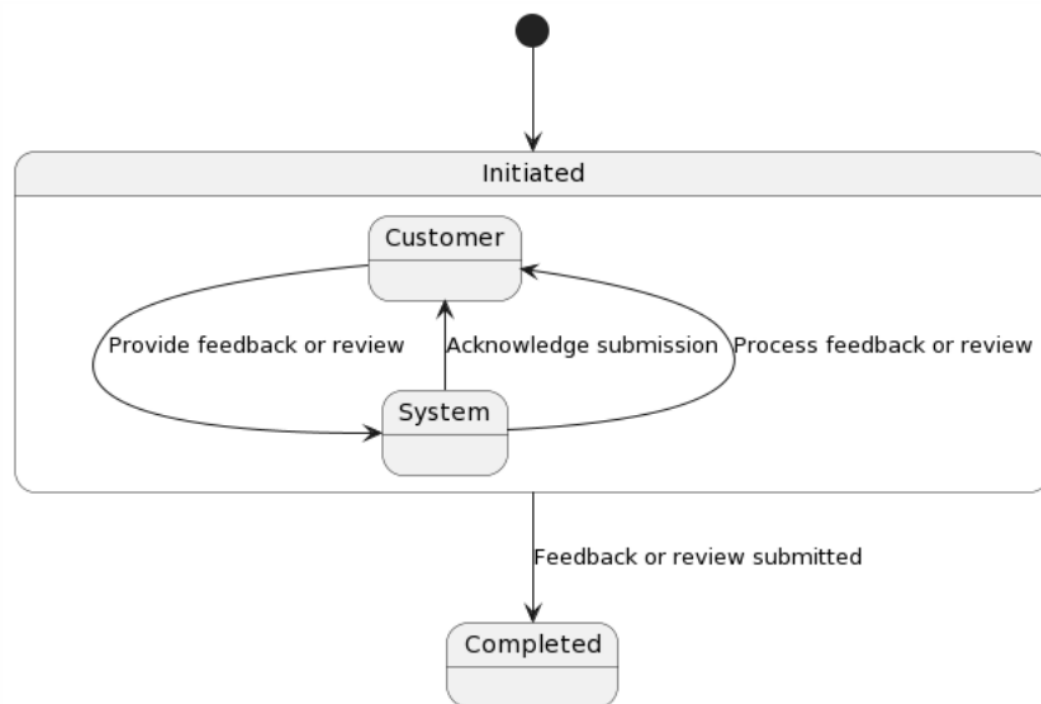


Figure 26: Feedback & Reviews

### 6.d.1 Sequence Diagram

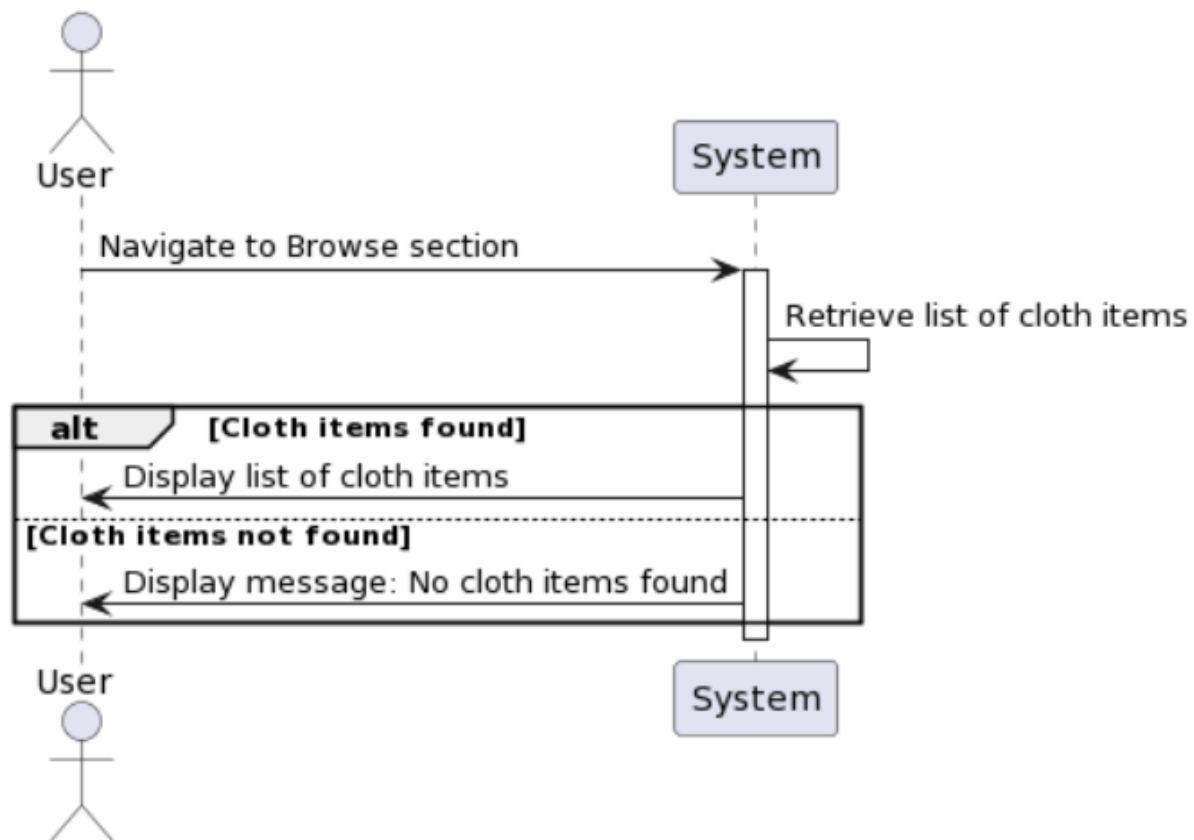


Figure 27: Browse items

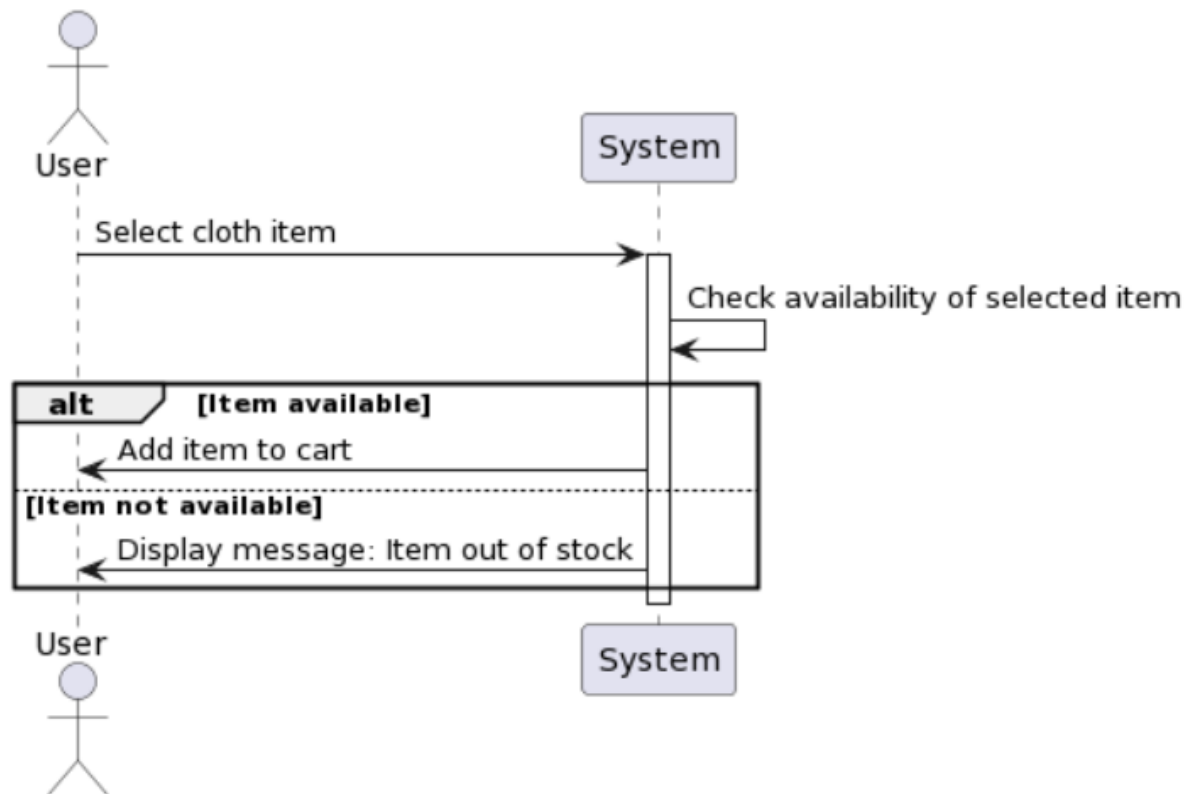


Figure 28: Select Item

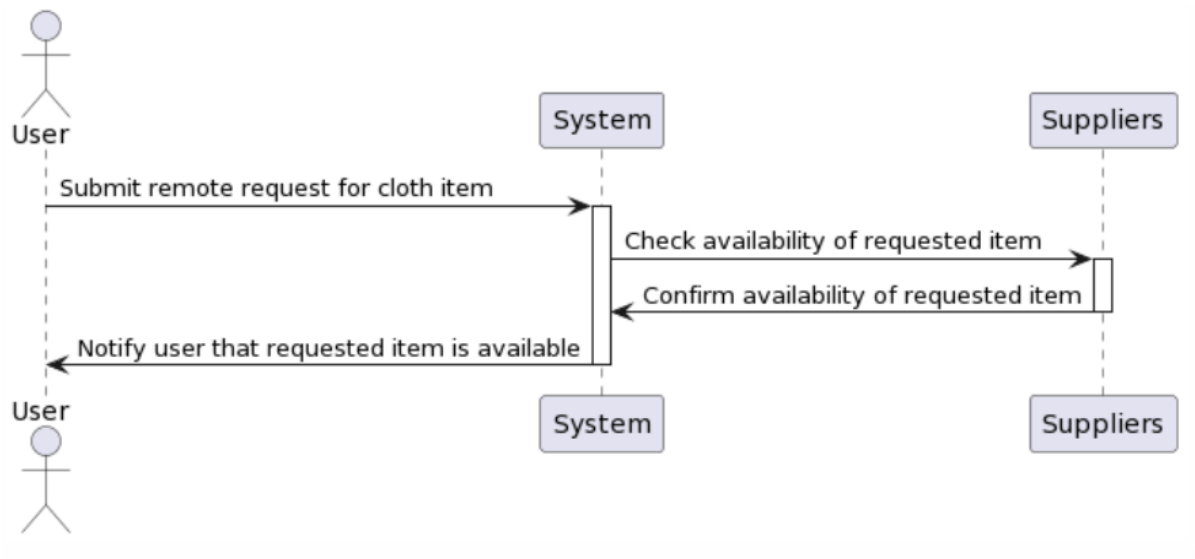


Figure 29: Remote Request

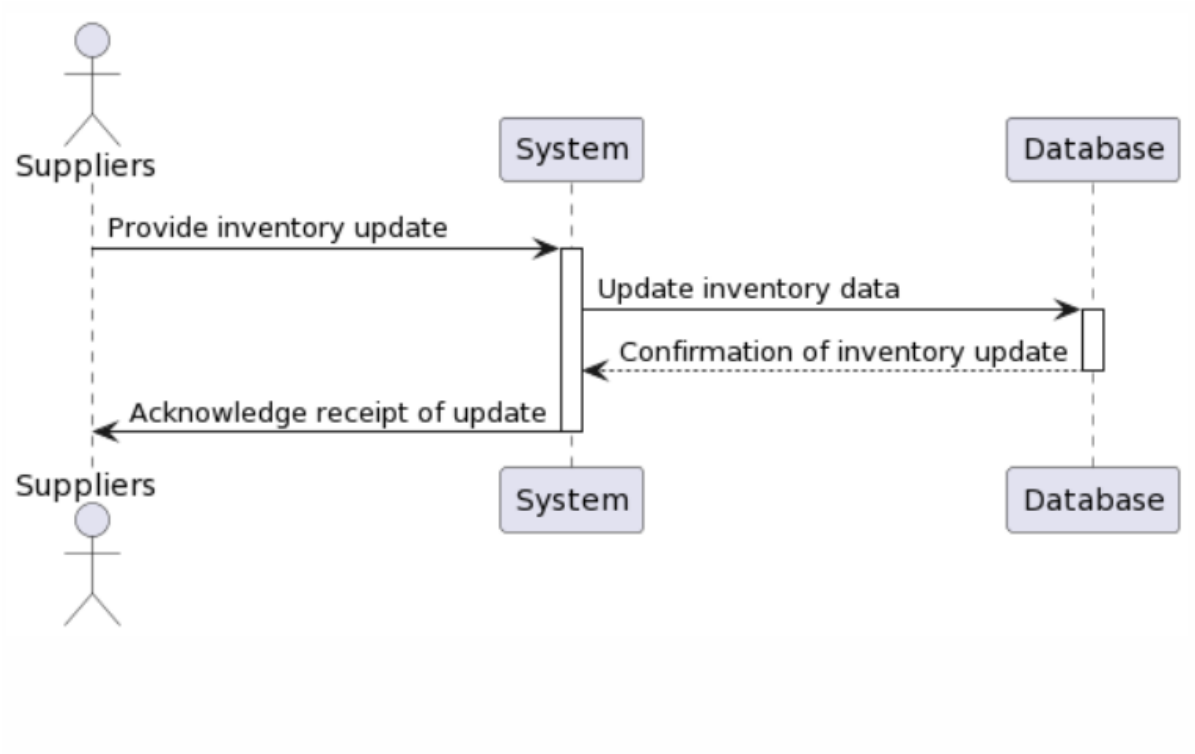


Figure 30: Manage Inventory

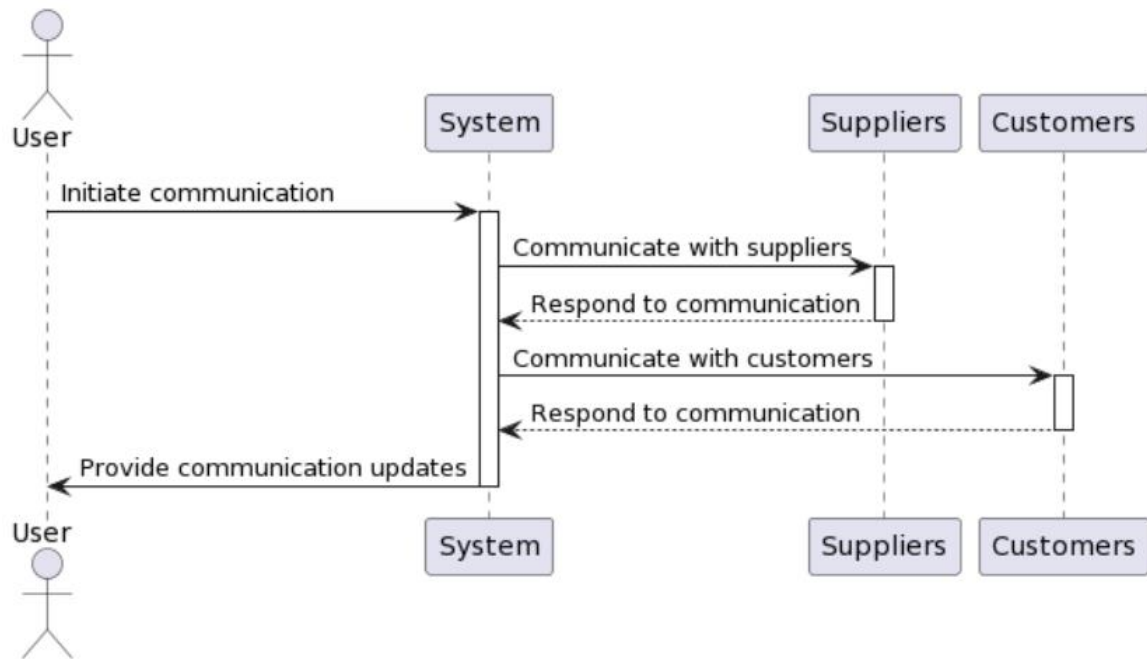


Figure 31: Communication

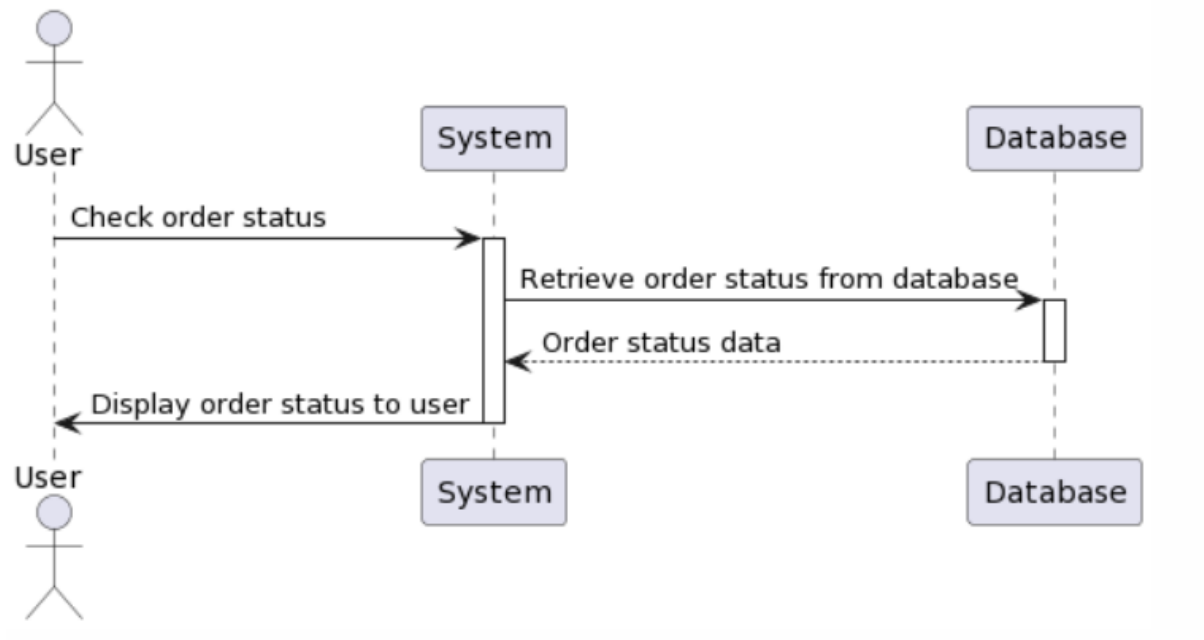


Figure 32: Order Status

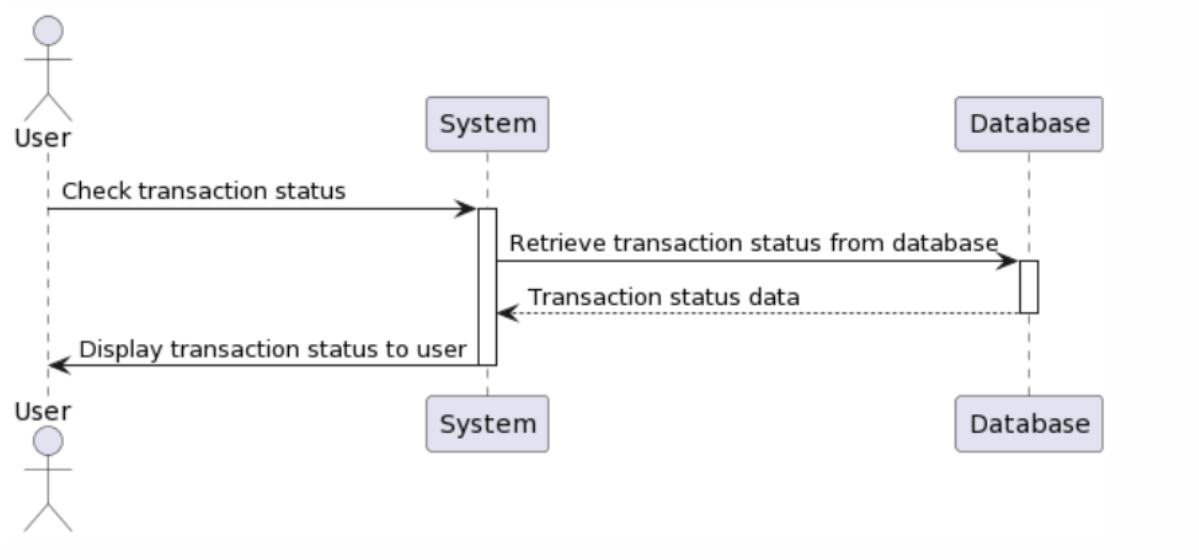


Figure 33: Transaction Status



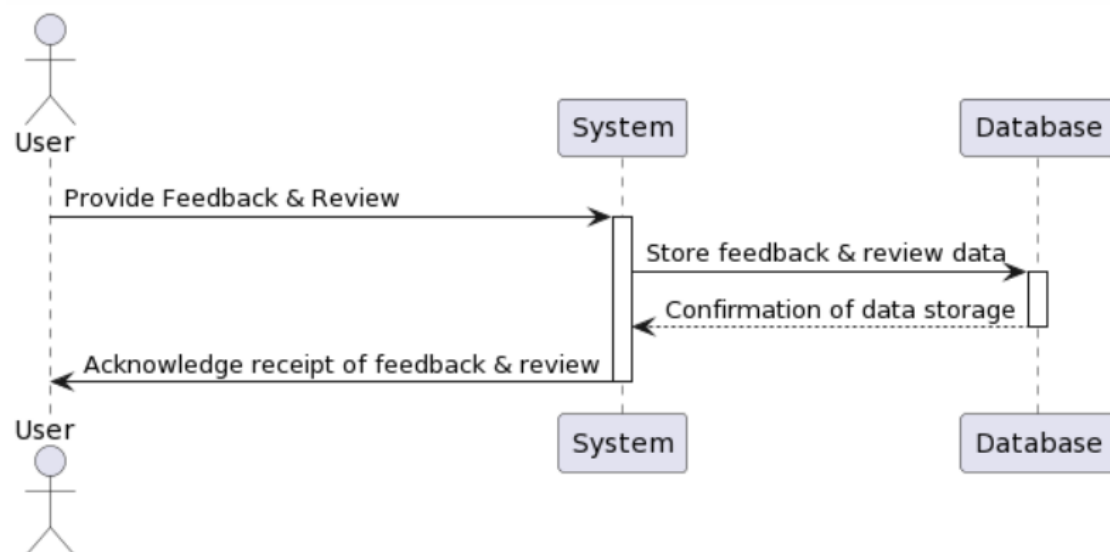


Figure 34: Feedback & Review