

Solved Case Study Asked in Business Analyst Job Interview

Diwakar Singh

Case Study

You have been assigned as a Business Analyst for an online cosmetic company. The company sells various skin care and other beauty products. This is your first big project with this company, and it is to build an online web portal where customers can get the best online customer service experience.

Since the team will be using an Agile approach to complete the project incrementally, your first assignment is to manage the product backlog and create some user stories. To understand the requirements, you have decided to map out the current business processes. You decided to meet the various cross functional team members to understand the current processes.

The customer will go online to the company website and place an online order for beauty products. The customer service department is the first point of contact, as they get online orders from their website. The customer service team then checks the inventory system to ensure that the stock is on hand or needs to be replenished to ship the order within the lead time. On rare occasions, the customer service team might have to cancel the order if there is a material shortage or unavailability which is outside the normal lead time. Once the stock availability is confirmed by the warehouse team, the warehouse team ships the packaged items and sends a confirmation email with shipping details to the client.

In Scope: Customer placing the online order, customer service department receiving the order, warehouse department fulfilling and shipping the order and notifying the customer on order status.

Out of Scope: Anything prior to ordering or after shipping, inventory management, and payment system is out of scope.

Questions

1. Create a list of questions that you would ask stakeholders to gather the requirements of the web portal.

2. Based on your assumptions create a high-level requirement document.

3. Create a Use Case Diagram to visualize the scope of the portal.

4. Create a swim lane diagram for each of the actors involved in the online ordering process.

- Customer
- Customer Service Team
- Warehouse Team

5. Create user stories and its acceptance criteria that would be delivered to the development team around the shipping and email confirmation of the shipped order.

Answers

List of Questionnaires for requirement gathering:

1. I understand from the business scenario that the purpose of the website is to sell skin care and beauty products. May I know the target audience for these products to ensure better sales and high traffic?
2. Is the purpose of the website only ecommerce, or will there be pages supporting other aspects of the business?
3. Roughly how many different products or services will you be selling online?
4. Will these products be separated into different categories or subcategories? If so, roughly how many?
5. Will these products have “attributes”? If so, do you need the website to keep separate track of stock based on these attributes?
6. Are any products customized for the client?
7. Do you have existing photography for your products? Will your product manufacturers or distributors provide professional photography?
8. Will you need to charge shipping separately from the product?
9. Which shipping method would be the best fit (you can choose more than one)?
1. Exact shipping costs through a real time direct link with a shipper

such as USPS, Canada Post, UPS, FedEx

II. Flat rate depending on location

III. Free shipping over a certain dollar amount (or number of items ordered).

10. Do you need to provide shipping details (tracking number) to the client automatically?

11. Do you require any special shipping cut off times and dates?

12. Which countries will you be shipping to?

13. Will you need to charge sales or other tax separately for the items? if so, please describe the tax rules.

14. Do you sell services or products that require regular recurring billing? Other than the initial order, does this recurring billing need to be self-managed by the client through the website?

15. Do you need to present certain products, prices, discounts, or content to specific visitors, such as customers, wholesalers, retailers, or distributors?

16. Do you need to track limits on items being sold (e.g., inventory or spaces available in a class)?

17. Do you need your website to indicate items out of stock, class full, etc.?

18. Do you want to allow backordering or waiting lists?

19. Do you need your ecommerce store to integrate with any other existing systems? and if so, which ones like accounting system, Inventory system, Client management system, Marketing communications system.

20. Will you want to implement an affiliate or referral program?
21. What sort of reporting for fulfillment do you require like an email per order, manual review of orders in backend, daily picklist summary with printable shipping labels?
22. Do you require your site to be multilingual?
23. Do you require us to import or migrate old data to your new site?
24. Where are you hosting your ecommerce site?
25. How does your host handle caching?
26. Can you name few of your competitors, and describe how you differ from them
27. What actions do you want visitors to take on your ecommerce website?
28. What features should your website contain (user registration, file upload, contact form, photos, videos, etc.)?
29. Do you have any color preferences or look and feel for the ecommerce website?
30. What do you NOT want on your ecommerce website in terms of content, colors, graphic elements, etc.?
31. How do you intend to optimize the process for price listings and quotations?
32. Do you have a process to measure success?

High-Level Requirement Document

1. Project Overview

Project Name: Online Customer Service Portal Development

Project Sponsor: Online Cosmetics Company

Business Analyst: Diwakar Singh

Objective: To develop an online web portal that enhances the customer service experience by facilitating efficient order placement, processing, and tracking.

2. Project Scope

In Scope:

- Development of the customer-facing web portal for order placement.
- Integration with existing inventory systems for order verification.
- Backend processes for order fulfillment and customer notification.

Out of Scope:

- Overhaul of the existing payment system.
- Changes to the fundamental inventory management system.
- Post-delivery customer feedback mechanisms.

3. Stakeholders

- **Customers:** End-users of the portal for purchasing products.
- **Customer Service Team:** Manages customer inquiries and order processing.
- **Warehouse Team:** Handles physical inventory and order shipments.
- **IT Department:** Supports software integration and system maintenance.
- **Marketing Team:** Utilizes the platform for promotions and customer engagement.

4. Business Requirements

Functional Requirements:

1. FR1: Product Browsing and Search

- a. Customers should be able to browse and search for products based on category, price, and brand.

2. FR2: Order Placement

- a. The portal should allow customers to add products to a shopping cart and place orders securely.

3. FR3: Inventory Verification

- a. The system should automatically check product availability against the inventory database and notify the customer service team.

4. FR4: Order Processing Workflow

- a. Workflow to include order receipt, verification, fulfillment, and confirmation processes.

5. FR5: Customer Notification

- a. Automatic generation and sending of emails regarding order confirmation and shipment details.

Non-Functional Requirements:

1. NFR1: Usability

- a. The portal should be user-friendly with a responsive design compatible with multiple devices and browsers.

2. NFR2: Performance

- a. All web pages should load within 3 seconds to ensure a smooth user experience.

3. NFR3: Scalability

- a. The system should be capable of handling up to 10,000 simultaneous users without performance degradation.

4. NFR4: Security

- a. Implementation of secure protocols (HTTPS) and data encryption for all transactions.

5. NFR5: Compliance

- a. Adherence to relevant privacy regulations and e-commerce standards.

5. Assumptions

- Current inventory and customer databases are robust and can integrate with the new portal without significant modifications.
- The existing IT infrastructure is sufficient to support the initial deployment of the web portal.

6. Constraints

- The project timeline is constrained to a 6-month delivery for the initial launch.
- Budget limitations may restrict the extent of custom development.

7. Risks

- Potential delays in integrating with existing inventory systems.
- Risk of underestimating the resources required for testing and deployment.

8. Dependencies

- Timely availability of APIs from the inventory management system for real-time stock checks.

- Support from the IT department for system integration and troubleshooting.

9. Approval

- **Document Prepared By:** [Your Name]
- **Approval Required From:** Project Sponsor, IT Department Head

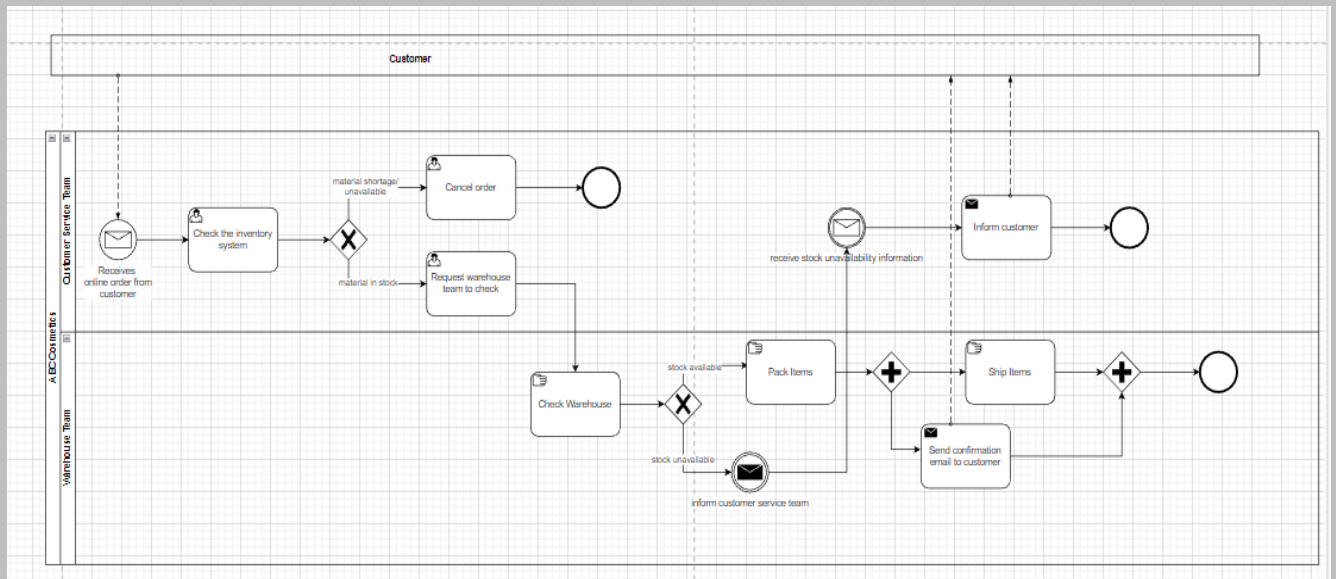
10. Revision History

- **Version 1.0 [5th Sep 2024]:** Initial creation of the document.
- **Version 1.1 [15th Sep 2024]:** Updates based on stakeholder feedback.

Use Case Diagram



Swimlane Diagram:



User Stories and Acceptance Criteria

User Story: Order Shipping

As a warehouse staff member, **I want to** access and update the status of an order as 'shipped' in the system, **so that** the order can be officially recorded as dispatched and trigger the confirmation email process.

Acceptance Criteria:

1. The warehouse staff must be able to view pending orders designated to them for shipping.
2. Staff should be able to update the order status to 'shipped' with a simple action (e.g., clicking a button).
3. The system must allow the staff to enter details such as the shipping date, carrier, and tracking number.
4. Once the order status is updated, the system should automatically interface with the email system to initiate the confirmation email process.
5. The system must confirm the successful update of the order status and the initiation of the email process to the staff.
6. In case of an error during the update, the system should display a meaningful error message and not change the order status.

User Story: Shipping Confirmation Email

As a system, I want to automatically send a shipping confirmation email to the customer once their order is marked as shipped, **So that** the customer is informed about their order status and has tracking information.

Acceptance Criteria:

1. The email should be sent automatically once an order is marked as 'shipped' by the warehouse team.
2. The email must include:
 - Customer name and address.
 - Order number.
 - Detailed list of items shipped.
 - Shipping carrier and tracking number.
 - Estimated delivery date.
 - A link to track the order.
3. The email should follow a predefined, branded template that is consistent with other customer communication.
4. The email must be personalized with the customer's first name.
5. The system should log and confirm that the email has been sent successfully.
6. In case of a failure in sending the email, the system should attempt to resend the email. If it fails again, it should notify the administrator.