**Online Multivendor Shopping Platform**

Requirements Determination and Use Case Analysis / System Proposal / Analysis Phase   
(Homework No.2)

Project team: Team 09

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Submitted in partial fulfillment of the requirements of the INFT 2303: Systems Analysis and Design course project

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| --- | --- |
| GitHub repository | https://github.com/ADA-SITE-INFT2303-2023-Spring/sys-dev-project-team-09 |
| 03/28/2023 | Everything finalized |
| 03/24/2023 | Initial draft |
| 03/28/2023 | Final commit |

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| Other documents in the package | |
| INFT2303-HW01B-System-Request-Feasibility | Previous homework: System Request Feasibility, HW1B. |
| Use Case Diagram | Use Case Diagram in draw.io |

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| --- | --- | --- |
| Team member | Contribution to this homework (NOT the project) | Estimated % |
| Manaf Aghazada | Use Case Description (+ UC-13’s Optional Fields) | 25% |
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| Sabina Veyisli | Introduction(Bonus 1) , Design Constraints, Use Case analysis, Definitions | 25% |
| Zaur Khudiev | External Actor Descriptions, User Story Descriptions, Use Case Diagram | 25% |

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# Introduction

This is part of the System Proposal for a hypothetical project Online Multivendor Sales Platform submitted for partial fulfillment of the requirements of the Systems Analysis and Design course in the School of Information Technologies and Engineering at ADA University, Baku, Azerbaijan.

The document's purpose is to analyze the requirements and use cases of the "Online Multivendor Sales Platform" as well as propose a system analysis. To prepare the document, research was conducted to gather information on the needs and preferences of the users of the system, as well as any existing systems or technologies that may impact the analysis.

The document includes a detailed explanation of the system's purpose and functionality, as well as offers an analysis of the various use cases the system will handle. To illustrate these use cases as well as their connections to outside variables and constraints, visual representations like use case diagrams were developed.

Constraints such as technical, operational, and financial limitations were identified and documented, which are crucial considerations during the system analysis phase. This information was used to develop a proposed system analysis that meets the identified requirements and use cases.

Overall, the document provides a comprehensive analysis of the system's needs and use cases, along with a suggested system analysis that addresses those needs. To make sure that the system satisfies user needs and is in line with organizational goals, the analysis phase of the project is crucial.

## Definitions

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| Term | Definition |
| Network latency  Cloud computing  Authentication  Encryption  Access control  Sales analytics  Moderation  FAQs  User manual  Plan subscription  COD | The amount of time it takes for data to travel from one point to another  A model for delivering computing services over the internet  Verifying the identity of a user, device, or system.  The process of converting data into a coded language to protect it from unauthorized access.  Restricting access to specific resources or data based on a user's role or permissions.  The process of analyzing data related to sales in order to make business decisions and improve sales performance.  The process of monitoring and managing user-generated content on a website.  Abbreviation for frequently asked questions.  A document that helps users to understand the system, service, or product (simply, instructions).  The service offers subscriptions to support the vendors to set up their own businesses easily.  Cash On Delivery |

# Requirements Definition[[1]](#footnote-1)[[2]](#footnote-2)

1. Product Management:

* The system shall display product details, such as name, vendor, images, availability, price, and description.
* The system shall provide the authorization and management interface for administrator to manage (add, delete, etc.) products.
* The system shall follow the product inventory and update the details directly just as sales are made.
* The system shall warn administrator if a product’s availability on inventory is declining.
* The system shall allow administrator to configure product prices, update them, and apply discounts for the products.

1. Order Management:

* The system shall allow customers to place orders.
* The system shall provide a status of tracking order that enables the customers to check the order’s status.
* The system shall provide a history of orders enabling customers to view their product order history.
* The system shall allow administrator to view and fulfill orders (also, if needed, cancel orders).
* The system shall allow administrator to generate invoices.

1. Search:

* The system shall provide a search functionality for products enabling users to search by name, price, description, etc.
* The system shall allow customers to browse products by category and subcategory.
* The system shall allow users to sort and filter products based on product category, subcategory, price, etc.

1. Product details and images:

* The system shall provide detailed product information, including descriptions, specifications, and features.
* The system shall display product images, ranging from one to multiple images (if available) per product.
* The system shall provide the ability for adding reviews and ratings to products along with demonstrating them to customers.

1. Cart and checkout:

* The system shall allow customers to add items into cart and remove items from the cart.
* The system shall allow customers to apply discounts and coupons to their cart before ordering the products.
* The system shall allow customers to manage (add, remove, etc.) their shipping and billing address.

1. Payment processing:

* The system shall ensure secure payment processing for customers to protect customer information and security.
* The system shall support multiple payment methods, such as PayPal, credit card (e.g., VISA, MasterCard), etc.

1. Customer support:

* The system shall provide email support for customers.
* The system shall provide live chat support for customers.
* The system shall provide phone support for customers.

1. Vendor management:

* The system shall allow vendors to register and request approval from administrator.
* The system shall provide a management interface for administrator to manage vendors, including approving or rejecting vendor requests, product management, order management, managing vendor payments and commissions, etc.

1. Marketing and promotions:

* The system shall allow administrator to create discounts and coupon codes for customers.
* The system shall support special offers, such as discounts for limited-time, shipping cancellation when an amount of order price is reached, etc.
* The system shall support plan subscriptions for assisting the users.

1. Analytics and Reporting:

* The system shall track sales information, including the number of transactions, total revenue, etc.
* The system shall analyze customer behavior.
* The system shall provide market and trend analysis (e.g., popular products.).

1. Support and training:

* The system shall provide FAQs for customers.
* The system shall provide user manuals for customers.

1. Feedback management:

* The system shall allow users to rate products, provide reviews, and leave comments.
* The system shall allow users to edit or delete their reviews and ratings.
* The system shall allow administrator to check and moderate (reject or modify) the feedbacks provided by the customers.
* The system shall allow administrator to respond to user feedbacks.
* The system shall allow users to view their order history and feedback, including their ratings for products, reviews, and comments.

1. User account management:

* The system shall allow users to register through setting username, email address (verification required), and password.
* The system shall allow users to login using their email address and password.
* The system shall allow users to manage their account information, including resetting their passwords, updating email addresses, changing their usernames, etc.
* The system shall provide users with account recovery as when the password is lost, they can utilize their email address to reset the password and recover the account.
* The system shall allow users to add and remove payment methods and select a payment method for further transactions.

1. Privacy and security:

* The system shall ensure privacy and security of user information by applying protection measurements.
* The system shall implement data protection measures, such as backups, recoveries, etc.
* The system shall ensure the secure transmission of user information, including their passwords, addresses, and payment information through encryption methods.

1. Social media and integration:

* The system shall integrate with different social media platforms and track user engagement and behavior.

1. Localization:

* The system shall integrate with local payment gateways and local tax regulations; it will provide localization for Azerbaijani language and currency.

1. Return and Refund management:

* The system shall ensure a refund option for products; the system shall have policy for refunding and include returning as well.
* The system shall provide administrator to manage the return and refund requests from customers; the customers shall have tracking status to check the request’s status.

## Functional Requirements

* The system shall display products with details such as product name, cost, description, images, reviews, ratings, comments, etc.
* The system shall allow customers to place orders by adding items to the cart and proceeding to checkout.
* The system shall manage inventory by updating product quantities based on orders and purchases.
* The system shall allow customers to track the status of their orders and view their transaction history.
* The system shall allow customers to modify their cart contents, use coupons and discounts, and manage their shipping and billing addresses.
* The system shall provide secure payments and assist multiple payment methods.
* The system shall provide customer support via email, live chat, and phone.
* The system shall allow vendors to register and manage their products.
* The system shall provide discounts, coupon codes, special offers, and plan subscriptions.
* The system shall provide analytics and reporting features, including sales tracking, customer behavior analysis, and market trend analysis.
* The system shall provide support and training materials such as FAQs and user manuals.
* The system shall allow users to rate the products, give reviews, and leave comments; it will also allow administrators to moderate the feedbacks and respond to customers.
* The system shall allow users to register accounts, login, manage their account information, use recovery, reset passwords, and manage their payment methods.
* The system shall ensure privacy and security through utilizing data protection measures and secure transmission of user information.

## Nonfunctional Requirements

* The system shall be reliable and accessible with minimal downtime for maintenance.
* The system shall be user-friendly and simple for customers and vendors to utilize.
* The system shall be safe; it will protect user data from security risks including unauthorized access, hacking, etc.
* The system should support encryption of sensitive data; also, may apply password complexity requirements.
* The system shall be compatible with different browsers (e.g., Google Chrome, Opera), platforms, and devices.
* The system shall be easy to maintain and update (with bug fixes and new features).
* The system shall be able to handle many daily active users and have quick response times for all operations.
* The system shall be scalable in order to meet rising resource demands and anticipated growths.
* The system shall comply with all applicable laws and rules, including data and consumer protection laws.

## Design Constraints

The limitations and restrictions that should be taken into account when creating a system, product, or project are known as design constraints. Examples of design constraints include:

* Technical constraints like hardware: The system should be designed with a variety of gadgets, including laptops, desktop computers, tablets, cellphones and etc. Also, the system needs to be adjusted so that it can function well on devices with minimal memory and processing power.
* Network connectivity: These are the specifications that will be used by the system to construct the communication. Some details such as network speed, network latency, and network security may be important for the system design.
* Usability & Scalability: The system should be designed with specific principles such as feedback, navigation, flexibility, consistency, aesthetics and etc. User-friendly experiences should be built for customers. Additionally, as the platform expands, the system must be able to handle a high number of traffic and transactions. Scalable technology, such as cloud computing, and effective database design are needed for this.
* Security and privacy: To guarantee the confidentiality of consumer data, the system must follow industry-standard security measures to prevent unauthorized access. Security features including authentication, encryption, access control, regular software updates and etc. can be done.
* Legal and Regulatory Compliance: The system must abide by national and international e-commerce-related laws and regulations, including those governing consumer protection, taxation, and data protection.

# Use Case Analysis[[3]](#footnote-3)

* Check products: The system will show all available products together with their features such as the product name, price, description, and photos, as well as reviews, ratings, and comments. Users can check the specifics of the available products and browse them.
* Add to chart: By choosing the products they want to buy and clicking the "Add to basket" button, customers can add products to their shopping carts.
* Checkout: Consumers can make a start by verifying the items in their shopping basket, their shipping/billing addresses, and their payment details.
* Manage orders: Customers can follow their transaction history and the status of their orders. Also, they have the option to edit their orders and apply discounts/coupons, and change their shipping/billing addresses.
* Vendor registration: Suppliers can sign up on the platform by submitting their data about their business, including name, address, contact information, and details about their products.
* Manage products: Vendors can manage their products by adding or updating product details, images, and inventory quantities. They can also view sales analytics and customer behavior analysis.
* Discounts and subscriptions: In order to attract new customers and retain the permanent ones, the system should offer them discounts, coupon codes, and special offers.
* Customer support: To resolve any difficulties or complaints presented by customers, the system will offer customer service via email, phone, or live chat.
* Feedback and moderation: The system will enable users to rate goods, provide reviews, and post comments/photos. Administrations will also be able to moderate feedback and reply to customers.
* User registration and management: Users must be able to register accounts, log in, and manage their account information, use password recovery, reset forgotten passwords, and manage their payment methods using the system.
* Security and privacy: By implementing data protection measure the system must build privacy and security in order to assure customer confidence.

## External Actor Descriptions

**Human actors:**

*Customer* - A person who visits the e-commerce website, creates an account, searches for products, adds items to the cart, completes the checkout process.

*Seller(or Vendors)* - A person or a company who registers as a seller on the e-commerce website, creates product listings, manages inventory, fulfills orders, and receives payments from customers.

*Administrator* - A person or a team who manages and maintains the e-commerce website, monitors site performance, resolves disputes, and enforces site policies.

**Software actors:**

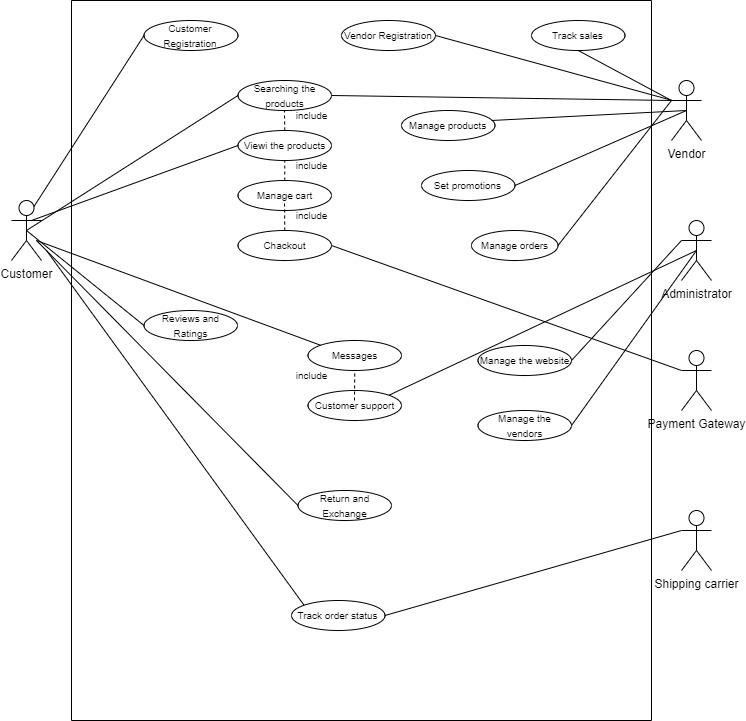
*Payment gateway* - A software system that handles payment transactions between customers and sellers.

*Shipping carrier* - A software system that provides shipping services, such as tracking, delivery confirmation, and returns processing, between vendors and customers.

## User Story Descriptions

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| --- | --- | --- |
| User story name | Description | Release |
| Customer Registration | Customers will be able to create an account by providing information like full name, email, password, address. | R1 |
| Vendor Registration | Vendors will be able to create account by providing information like full name, store name, email, password, choosing the category of their products | R1 |
| Searching the products | Users will be able to search the products by using keywords, filters, and categories so that users can easily find what they are looking for | R1 |
| Viewing the products | Users will be able to view detailed product information, including images, description, pricing, and customer reviews, so that they can make an informed purchasing decision | R1 |
| Cart Processes | Customers will be able to add products to the cart, update quantities, and remove items as necessary. | R1 |
| Checkout | Customers will be able to checkout securely and easily with different payment options (credit card, debit card, COD and so on). | R1 |
| Tracking Order Status | Customers will be able to track their order status, including shipping updates and estimated delivery times. | R1 |
| Return and Exchange system | Customers will be able to initiate returns, exchange requests, or refunds within a specific period after receiving the product. | R2 |
| Reviews and Ratings | Customers will be able to leave product reviews and ratings to share their experience with other customers and help them make purchasing decisions. | R1 |
| Messaging system | Vendors and customers will be able to communicate with each other through messages, emails, or chatbots to address their inquiries, complaints, or feedback. | R2 |
| Managing products | Vendors will be able to create and manage my own product listings, including images, descriptions, pricing, and inventory. | R1 |
| Tracking sales | Vendors will be able to track their sales, revenue, and profit in real-time and analyze the data to improve their business. | R1 |
| Managing orders | Vendors will be able to see, edit, delete and fulfill the orders. | R1 |
| Promotions | Vendors will be able to offer promotions and discounts to attract customers and increase sales, such as buy one get one free, free shipping, or percentage off. | R1 |
| Managing the site | Administrator will be able to monitor and manage the overall site performance, including server uptime, traffic, and security | R1 |
| Managing the vendors | Administrator will be able to manage sellers, including their account registration, verification, approval, and so on. | R1 |
| Customer support | Administrator will be able to provide 24/7 customer support through various channels, such as email, chat, or phone, to resolve customer issues and improve satisfaction. | R1 |

### Use Case Diagram



## 

## Use Case Description

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### Use Case 1

|  |  |
| --- | --- |
| **Use Case Number:** | UC-01 |
| **Use Case Name:** | Register as a Customer |
| **Actor(s):** | Customer |
| **Description:** | Registrant shall provide full name, email, password, address information to the System upon registering and becoming a Customer |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | No pre-condition(s) |
| **Main (Success) Flow:** | 1. Customer selects option to register  2. System requests personal information i.e. full name, email, password, address  3. Customer provides personal information.  4. System verifies required information is provided.  ● If email or username is already in use or invalid System displays message. Return to Step 2  5. System requests login information i.e. user name and password  6. Customer provides login information  7. System verifies required information is provided  ● If information is invalid System displays message. Return to Step 5  8. System displays confirmation of registration |
| **Alternate Flows:** | Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the registration process. The following steps would occur:  1. Customer selects option to cancel during registration  2. System requests confirmation to cancel  3. Customer confirms intent  4. System returns to main screen |
| **Post Condition:** | A new account is created and the system can store the data in its database. |
| **Requirements:** | 1 – The user shall be provided with account creation form, 2 - The user should enter credentials with correct syntax. 3 – The system shall verify whether the user provided acceptable username and password. 4 – If the credentials are wrong, the user shall receive an error message and shall be required to provide an acceptable username or password.. |

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### Use Case 2

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| **Use Case Number:** | UC-02 |
| **Use Case Name:** | Register as a Vendor |
| **Actor(s):** | Vendor |
| **Description:** | Vendor shall provide full name, store name, email, password, choosing the category of their products information to the System upon registering and becoming a Vendor. |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | Required files and store information to be able to get vendor authorization |
| **Main (Success) Flow:** | 1. Vendor selects option to register  2. System requests personal information i.e. full name, store name, email, password, choosing the category of their products  3. Vendor provides personal information.  4. System verifies required information is provided.  ● If email or username is already in use or invalid System displays message. Return to Step 2  5. System requests login information i.e. user name and password  6. Vendor provides login information  7. System verifies required information is provided  ● If information is invalid System displays message. Return to Step 5  8. System displays confirmation of registration |
| **Alternate Flows:** | Alternate Flow #1: After Step 2 in success scenario System will display the option to Cancel the registration process. The following steps would occur:  1. Vendor selects option to cancel during registration  2. System requests confirmation to cancel  3. Vendor confirms intent  4. System returns to main screen |
| **Post Condition:** | A new account is created and the system can store the data in its database. |
| **Requirements:** | 1 – The vendor shall be provided with account creation form, 2 - The vendor should enter credentials with correct syntax. 3 – The system shall verify whether the vendor provided acceptable username and password. 4 – If the credentials are wrong, the vendor shall receive an error message and shall be required to provide an acceptable username or password. 5 - The vendor should upload store information and essential files to prove his identity as a vendor. 6 - If the system fails to confirm the requirements, the vendor shall be required to provide lacking requirements. |

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### Use Case 3

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| --- | --- |
| **Use Case Number:** | UC-03 |
| **Use Case Name:** | Login to user account |
| **Actor(s):** | User |
| **Description:** | The use case indicates the process of user logging into an existing account in the system. |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The user must have a registered account in the system so that logging in can be possible. |
| **Main (Success) Flow:** | 1. The user navigates to the login page. 2. The system demonstrates login options. 3. The user enters his username and password. 4. The system receives the information and verifies whether it is correct or not. 5. If the details are correct and there is such an account, the system logs the user in and navigates the user to the main page. |
| **Alternate Flows:** | Alternate Flow #1: after step 4, if the credentials are not correct, the system displays an error and asks the user to provide them again.   1. The user navigates to the login page. 2. The system demonstrates login options. 3. The user enters his/her username and password. 4. The system receives the information and verifies whether it is correct or not. 5. If the details are not correct, the verification phase fails, and the system indicates an error log and requires user to enter the account details again |
| **Post Condition:** | The user is logged in to his account and can access the system.  Alternate Flow #1: The user shall receive an error message and be navigated to provide credentials again. System verification did not allow the user to login to the provided account. |
| **Requirements:** | 1 – The user shall be provided with login form, 2 – Utilizing the registered account (if exists) the user shall be able to login into his account, 3 – The user shall be provided with password reset option, 4 – The system shall verify whether the user provided correct username and password, particularly, the credentials, 5 – If the credentials are wrong, user shall receive an error message and shall be required to provide the credentials again. |

### Use Case 4

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| --- | --- |
| **Use Case Number:** | UC-04 |
| **Use Case Name:** | Reset password |
| **Actor(s):** | User |
| **Description:** | User can reset password |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | User must have a registered account in the system so that he/she can reset password |
| **Main (Success) Flow:** | 1. User navigates to the reset password page 2. System request email address 3. User provides email address 4. System sends reset password email 5. User checks email box 6. System requests new password 7. User provides new password 8. System verifies required information is provided  * If the password is not strong enough, System displays message. Return to Step 6 and create stronger password  1. System displays confirmation of new password |
| **Alternate Flows:** | Alternate Flow #1: After Step 2 in success scenario user remembers password and clicks on Cancel option   1. User select option to cancel during resetting password 2. System requests confirmation to cancel 3. User confirms intent 4. System returns to login page |
| **Post Condition:** | User reset the password and can access his/her account |
| **Requirements:** | The system must store the user’s credentials. The user must have an existing account. The user must have access to his/her email address. |

### Use Case 5

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| --- | --- |
| **Use Case Number:** | UC-05 |
| **Use Case Name:** | Searching the products |
| **Actor(s):** | User |
| **Description:** | User can search the products in the system. |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The system has products available and listed for sale |
| **Main (Success) Flow:** | 1. User navigates to the home page 2. System demonstrates home page 3. User choose the filter 4. User enters the specific keywords to get exact result 5. System receives the information and checks whether there is such product or not  * If there is not such product matching the entered keywords, System displays message: Return to Step 3  1. If there are products matching the entered keywords, the system will display them |
| **Alternate Flows:** | Alternate Flow #1: |
| **Post Condition:** | The user can view the list of products based on their search options. |
| **Requirements:** | The system must have products and list provided; it also must include an efficient search feature that can provide the user different options and can include many products. |

### Use Case 6

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| --- | --- |
| **Use Case Number:** | UC-06 |
| **Use Case Name:** | Viewing the product |
| **Actor(s):** | User |
| **Description:** | The use case indicates the process of user viewing the product in the system. |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The user utilized the search option and entered the options. |
| **Main (Success) Flow:** | 1. Customer enters to filtering part of home page 2. System demonstrates filter i.e. price range, category, vendor 3. User choose the filter criteria 4. System shows a list of products that fit the chosen filter criteria 5. User clicks on the product 6. System demonstrates product details i.e. images, description, pricing, and customer reviews |
| **Alternate Flows:** | Alternate Flow #1: after step 2 in success scenario System displays the message: Currently unavailable.   1. System displays message: Would you like to get notified when this item will be back in stock? 2. User choose yes option 3. System requests to return home page 4. User confirms intent 5. System returns to home page   Alternate Flow #2: after step 2 in success scenario System displays the message: Currently unavailable.   1. System displays message: Would you like to get notified when this item will be back in stock? 2. User choose no option 3. System requests to return home page 4. User confirms intent 5. System returns to home page |
| **Post Condition:** | The user leaves the page or adds product(s) into the cart. |
| **Requirements:** | The system must have a database of products and search features. |

### Use Case 7

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| --- | --- |
| **Use Case Number:** | UC-07 |
| **Use Case Name:** | Add to cart |
| **Actor(s):** | Customer |
| **Description:** | The use case indicates the process of managing products list |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The customer has added at least one or more products into the shopping cart. |
| **Main (Success) Flow:** | 1. Customers join to filtering part of home page 2. System demonstrates filter i.e. price range, category, vendor 3. Users choose the filter criteria 4. System shows a list of products that fit the chosen filter criteria 5. User clicks on the product that he/she is looking for 6. System demonstrates all details about product 7. Customer choose to add to cart option 8. System verifies user’s choice and displays message confirming that the product has been added to the cart |
| **Alternate Flows:** | Alternate Flow #1: If the product is out of stock, system displays the message that product cannot be added to the cart.  Alternate Flow #2: If the customer’s cart contains maximum capacity of products that is allowed, the system displays the message that out of cart capacity and cannot add any product |
| **Post Condition:** | The customer has successfully added the product into the shopping cart. |
| **Requirements:** | The system must have a cart feature available for customers so that they can add products, view the cart, remove products, and continue the order. |

### Use Case 8

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| --- | --- |
| **Use Case Number:** | UC-08 |
| **Use Case Name:** | Update product quantity |
| **Actor(s):** | Customer |
| **Description:** | The use case indicates the process of updating quantity of products |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The system must have a list of products and have the feature of adding products into the cart. |
| **Main (Success) Flow:** | 1. Customer clicks on the Cart button 2. System demonstrates details i.e. product name, product quantity, product price, total price 3. User clicks on Quantity button 4. System requests the quantity options 5. Customer choose how many of the product he/she wants 6. System requests confirmation to the update 7. Customer clicks on Update button 8. System verifies update request |
| **Alternate Flows:** | Alternate Flow #1: After Step 4 in success scenario System displays delete option   1. Users click on delete option 2. System request confirmation to the update 3. Customer clicks on Update button 4. System verifies delete request 5. System deletes product from Cart |
| **Post Condition:** | The user updates the product quantity in the cart. |
| **Requirements:** | The system must have the feature to add products into the cart. The system must enable customers to alter the quantity- add more from the similar product or remove- and continue the order. |

### Use Case 9

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| --- | --- |
| **Use Case Number:** | UC-09 |
| **Use Case Name:** | Checkout |
| **Actor(s):** | Customer |
| **Description:** | The use case indicates the process of checkout and place an order |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The customer has added at least one or more products into the cart. |
| **Main (Success) Flow:** | 1. Customer clicks on the Checkout button 2. System demonstrates order details i.e. the list of products, quantity, total price, and delivery address 3. Customers review the details  * If the information is invalid System displays the message: return to Step 2  1. Customer applies discount coupon 2. Customer clicks on the Place Order button 3. System checks the payment and confirms the order 4. System sends an email to customer about confirmation of order with order details |
| **Alternate Flows:** | Alternate Flow #1: After Step 4 in success scenario System displays the error message that insufficient balance   1. System displays option to change payment method 2. Customer confirms intent 3. Customer clicks on Place Order button 4. System checks the payment and confirms the order 5. System send an email to customer about confirmation of order with order details   Alternate Flow #2: If the shipping address is not complete or invalid, System displays the message to update the shipping address   1. System requests valid address 2. Customer enters the correct address  * If the information is invalid, System displays the message. Return to Step 1  1. System verifies required information is provided |
| **Post Condition:** | The customer has successfully completed the product order. |
| **Requirements:** | The system is required to have a checkout process which will enable customers to check and confirm the order; followingly, the customers has to be provided by payment methods, and receipts sent to the email after purchasing. |

### Use Case 10

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| **Use Case Number:** | UC-10 |
| **Use Case Name:** | Track Order Status |
| **Actor(s):** | Customer |
| **Description:** | Customer wants to track the status of his/her order |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | Customer has completed his/her order successfully and has a track status ID. |
| **Main (Success) Flow:** | 1. Customer clicks on Track the Order Status button 2. System requests the Order Number 3. Customer provides the Order Number and clicks on Track Order button 4. System verifies the required information is provided  * If information is invalid, System displays message: Return to Step 2  1. System displays the current status of order i.e. Order Received, Preparing for Shipment, Shipped, Delivered, or Cancelled |
| **Alternate Flows:** | Alternate Flow #1: If the customer is not logged in his/her account, System requests to log into account to see order status   1. Customer clicks on log in button 2. System requests username and password 3. Customer provides information 4. System verifies required information is provided 5. System displays the Order Status |
| **Post Condition:** | The system enables the customer to view the current status of the ordered product. |
| **Requirements:** | The system must have the feature of indicating the status of ordered product(s). For this, it is also required to have a database to store the information and provide it to customer to enable tracking status. |

### Use Case 11

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| **Use Case Number:** | UC-11 |
| **Use Case Name:** | Manage store |
| **Actor(s):** | Vendor |
| **Description:** | Vendor wants to manage their store on the platform |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The user has a verified vendor account on the platform. |
| **Main (Success) Flow:** | 1. Vendor clicks on Manage Store option 2. System displays control panel that shows the vendor’s store statistics, product listings and store settings 3. Vendor clicks on Update Store Settings option 4. System displays current Settings i.e store name, logo, description 5. Customer change store name 6. System verifies required information is provided  * If the information is invalid, System displays message. Return to Step 5  1. System displays confirmation of changes |
| **Alternate Flows:** | Alternate Flow #1: After Step 4 in success scenario Vendor clicks on logo option   1. System requests upload new logo file 2. Vendor uload new logo file 3. System verifies new logo file  * If file does not contain proper format, display error message to change file  1. System displays confirmation of new logo   Alternate Flow #1: After Step 4 in success scenario Vendor clicks on description option   1. Customers make changes on existing description 2. System request to confirm changes 3. Customer confirms the changes 4. System displays confirmation of changes |
| **Post Condition:** | The vendor manages (alters information, updates) the store and product details. |
| **Requirements:** | The system has an option of creating an account as a vendor. The system must enable vendors to have a page so that they can manage their stores. |

### Use Case 12

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| **Use Case Number:** | UC-12 |
| **Use Case Name:** | Rate the product |
| **Actor(s):** | Customer |
| **Description:** | Customer can rate the product, give review, and and leave comments after receiving and testing product |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | The customer must have an account and there must be a product to be rated. |
| **Main (Success) Flow:** | 1. Customer clicks on Product Rates option 2. System displays existing rates, reviews, and comments 3. Customer choose Add New Rate option 4. System requests information i.e. rate, review, comment 5. Customer provides information 6. System verifies required information is provided 7. System displays confirmation of rate |
| **Alternate Flows:** | Alternate Flow #1: In Step 4 in success scenario, System will display the option to Cancel the rate process.   1. Customer selects option to cancel during rating 2. System requests confirmation to cancel 3. Customer confirms intent 4. System returns to Product Rates screen |
| **Post Condition:** | The customer will rate the product (The product will be rated and other customers will see it). |
| **Requirements:** | The customer must have an account. The system must have a list of products available, enable customers to search for products and view the details. The system must have a rate system to enable customers to rate. |

### Use Case 13

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| **Use Case Number:** | UC-13 |
| **Use Case Name:** | Solving customer’s issue |
| **Actor(s):** | Customer, Customer Support |
| **Description:** | To solve customers’ issues, they can contact with customer support |
| **Priority (Release)** | High |
| **Trigger:** | External |
| **Pre-condition(s):** | Customer has issue to get his/her product |
| **Main (Success) Flow:** | 1. Customer clicks on Customer Support option 2. System displays Contact Options i.e. email, live chat, and phone 3. Customer clicks on live chat option 4. System displays online chat box 5. Customer expresses his/her issue 6. A member of the customer support department replies customer’s issue 7. Customer’s issue has solved 8. System requests to rate the service 9. Customer rates service 10. The system requests the confirmation of the customer's rate 11. Customer confirms rate 12. System displays confirmation of rate |
| **Alternate Flows:** | Alternate Flow #1: After Step 2 in success scenario Customer clicks on email option   1. Customer writes email about his/her issue 2. Customer service reads the email and responds with a solution to the problem 3. Customer reads the email and learns how to solve his/her issue 4. System requests to rate the service 5. Customer rates service 6. The system requests the confirmation of the customer's rate 7. Customer confirms rate 8. System displays confirmation of rate   Alternate Flow #1: After Step 2 in success scenario Customer clicks on phone option   1. Customer calls the customer service 2. Customer support representative answers the incoming call 3. Customer complains about his/her issue 4. Representative explains what causes issue 5. Customer understood the issue and ends the call 6. System asks how was call service and requests to rate the service 7. Customer rates service 8. The system requests the confirmation of the customer's rate 9. Customer confirms rate 10. System displays confirmation of rate |
| **Post Condition:** | Customer’s issue has solved |
| **Requirements:** | Customer must have account. The system must have customer support representatives to help them solve their issues. The system must have a rate system to enable customers to rate. |

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