

Raw Food Items E-Mart

Software Requirements Specification

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1. Introduction:

1.1. Purpose:

The purpose of this document is to provide a detailed description of the Raw Food Items E-Mart. This document aims to describe the Functionality, External Interfaces, Attributes, and Design Constraints imposed on the implementation of the software system; the language and terminology used are unambiguous and consistent throughout the document. This document is broken into several sections to logically separate the software requirements into easily referenced parts.

1.2. Scope:

The software system being developed is called Raw Food Items E-Mart or RFIE. It is being forged as an interactive platform to connect the sellers of raw materials throughout the country's food industry with potential buyers like households, restaurants, catering businesses, etc. The system is designed to provide automation support for selling products on the Internet and facilitating the actual sale. The system is mainly cross-platform and is available to anyone using the supported browsers. Cloud servers will run the system.

The Raw Food Items E-Mart will allow users to create an account to become customers. The system will allow customers to browse, search, select and add products to a shopping cart. Then, provided they have the desired products in the shopping cart, check out the product in the cart and decrement the stock in the inventory of the system. The RFIE also allows the seller to manage the inventory with complete create, retrieve, update and delete (CRUD) functionality regarding product availability. It will also enable the seller and customer to interact with a promotion system that manages the discounts and offers to customers' orders. This interaction includes the creation (by sellers) and the application to orders (by customers) of the promotions. The system will also provide an interface to the users to track the delivery of the

products. A per-item review system and sellers' rating system are also implemented. The system also has full email capabilities; the automated email functionality sends promotional emails to the customers and provides the sellers with low stock notifications.

The RFIE will have numerous constraints on functionality. The system will not have its own payment gateway. Third-party payment gateways will handle all the dealings. The system will not allow multiple promotions to be added to a single shopping cart. Only the verified customers will be able to post reviews.

1.3. Glossary:

Term	Definition
RFIE	Raw Food Items E-Mart
User	A seller or customer interacting with the platform
Customer	An individual or a firm who purchases the product on the website.
Seller	An individual or a firm who sells the product on the website.
Member	A customer with exclusive benefits provided through a subscription-based model.
Administrator	
Product/Item	The commodity sold through the platform.
Promotion	An item-wide percentage-off discount applied to a Customer's shopping cart.
Shopping Cart	A virtual implementation of a shopping cart that holds all the products the customer is interested in purchasing.
Check Out	The process of going through the payment gateway to complete the order.

Term	Definition
RFIE	Raw Food Items E-Mart
Transaction	The information related to a customer's purchase that is logged.
Stock	The quantity of any particular item the inventory has on hand.
Session	The time which a User is actively using the system.
Reorder	The system process that automatically orders new stock of an item.
Reorder Threshold	The numeric value of an item's stock that must be reached before the system will order additional quantities of the item.
Inventory	An object that holds items available for purchase by the Customer.
Dashboard	The back-end web interface that is visible to the seller.
SRS (Software Requirements System)	The document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.

1.4. References:

- [830-1984 - IEEE Guide for Software Requirements Specifications](#)
- [SRS Example](#)
- [How to Write a Software Requirements Specification \(SRS Document\) | Perforce](#)

1.5. Overview:

This Software Requirements Specification document is divided into multiple subsections. The first section includes

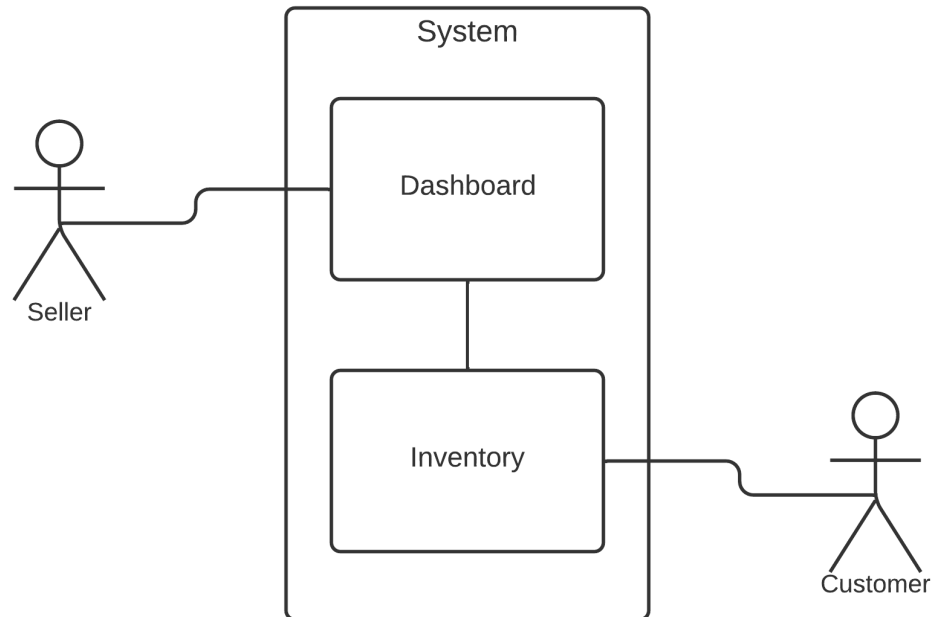
explanations of the document's Purpose, Scope, and Organization. The first section also handles the description of project-specific words, acronyms, and abbreviations used in the document.

The second section of the document explains the functional requirements of the software in non-technical terms. It describes the informal requirements and is used as a preface for the technical requirements section in the third portion of the document.

The third section is an enumerated listing of all of the requirements described for this system. It is primarily intended for the developers and describes the detailed functionality of the software in technical terms.

2. Overall Description:

2.1. System Environment:



The application has two active actors (seller and customer) connected to an administrating system. The customer connects to

‘inventory’, where they have access to all the products listed on the application.

Similarly, sellers have access to a ‘dashboard’ where they access all the essential data.

2.2. Functional Requirements Specification:

2.2.1. Customer Use Cases:

Use Case: **Login**

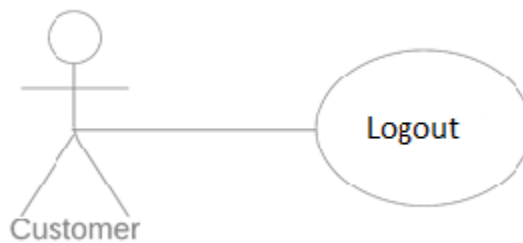
- Diagram:



- Brief Description: This allows customers to log in to their customer account
- Initial Step-by-Step Description: Before attempting to log in, the customer’s system must be connected to the internet.
 1. Customer selects the ‘login’ option present on the home screen.
 2. Once the login window appears, the customer is required to enter their registered e-mail id and password.
 3. Upon entering the valid login credentials, the customer will click on the submit button to log in to their account successfully.
 4. If the customer forgets their login credentials, a ‘Forgot Password’ option is present on the login window to enable the customer to reset their credentials.
- Xref: Section 3.2.1 “Login”

Use Case: Logout

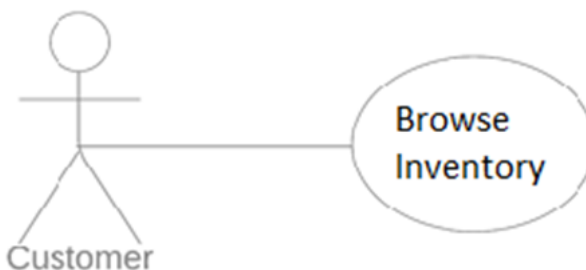
- Diagram:



- Brief Description: This option allows the customer to log out of their account.
- Initial Step-by-Step Description: The logout option will appear once the customer logs in to their account.
 1. Customer selects the 'logout' option present in the menu bar of the customer account.
 2. Once the logout window appears, the customer will select the 'logout' option.
 3. After selecting the 'logout' option, the customer will be prompted to confirm their choice.
 4. The customer confirms their action and will be redirected to the website home page.
- Xref: Section 3.2.1 "Logout"

Use Case: Browse Inventory

- Diagram:

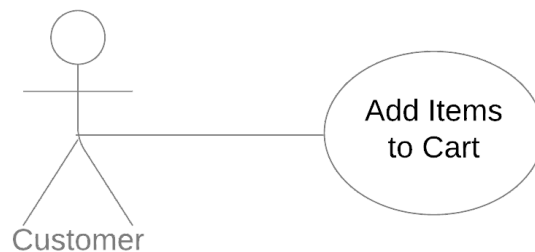


- Brief Description: This use case allows customers to browse through the available items.
- Initial Step-by-Step Description: Before this use case can be initiated, the customer must be logged in to their account.

1. This presents the customer with a choice to browse through the available items on the website.
 2. The customer will have an option to search for specific items through the search bar and add them to their cart.
 3. The customer would have an option to sort items according to their needs and convenience (sort according to price, reviews, availability, seller, available stock, etc.)
 4. Once the customer selects a particular 'sort' option, the items will be displayed accordingly, using certain sorting and ranking algorithms.
 5. On each available item, the customer will have an option to add it to their cart and specify the quantity required.
- Xref: Section 3.2.1 "Browse Inventory"

Use Case: Add Items to Cart

- Diagram:

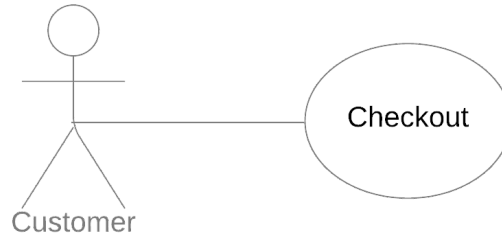


- Brief Description: Allows the Customer to place items selected in the Browse Inventory screen to their shopping cart for later purchase.
- Initial Step-by-Step Description: Before this use case can be initiated, the Customer has already logged in to the RFIE.
 1. The customer viewing the product page clicks the "Add to Cart" button.
 2. A Cart object mapped to the customer stores the product with its attributes.

3. On selecting subsequent items, new entries are created in the cart.
 4. After the shopping spree, the customer can checkout with the items in the cart.
 5. In case of a connection drop, the cart retains all the items to prevent inconvenience.
 6. The customer can also empty the cart in case he wants to start over.
- Xref: Section 3.2.1 “Add Item to Cart”

Use Case: Checkout

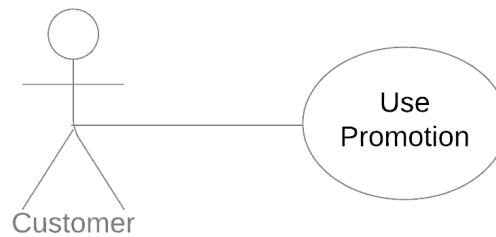
- Diagram:



- Brief Description: This takes the items in the customers' shopping cart and processes them for a purchase.
- Initial Step-by-Step Description: Before this use case can be initiated, the Customer has already logged in to the RFIE and must have at least one item in the cart.
 1. When the customer has added all the desired products to the cart, he can click on the “Checkout” button, leading to the payment gateway.
 2. The customer can apply the promotion code to avail discount on the item in the Text Box.
 3. The payment and shipping details are entered in the “Purchase Item” use case.
- Xref: Section 3.2.1 “Checkout”

Use Case: Use Promotion

- Diagram:



- **Brief Description:** This use case enables the customer to apply a promotional code to the items.
- **Initial Step-by-Step Description:** Before this use case can be initiated, the Customer has already logged in to the RFIE and must have checked out.
 1. This option allows the customer to avail discount mentioned by the seller for the specific items.
 2. A percentage-off discount is applied on entering the promotional code, and the item price is reduced.
 3. Customers enrolled in the loyalty program can use this feature on all the items regardless of the seller for a system fixed, though they are not eligible for seller-specified discounts.
- **Xref:** Section 3.2.1 “Use Promotion”

Use Case: **Add review**

- **Diagram:**

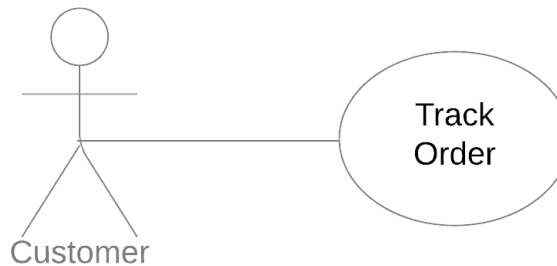


- **Brief Description:** This use enables customers to write a review of a specific item or product.
- **Initial Step-by-Step Description:** Before this use case, the customer must have completed the Log In use cases.

1. The customer viewing the product page clicks the “Add Review” button
 2. The review object is created under the review section of customer
 3. Customers can give ratings to items and also type messages in review
 4. Once the customer has given the review, he can click on the “Submit” button to add a review to the items.
 5. Customer can edit or delete review whenever he wants
 6. In case the connection drops, the current review is saved and when it retrieves he can again continue from that point.
- Xref: Section 3.2.1 “Add review”

Use Case: **Track Order**

- Diagram:

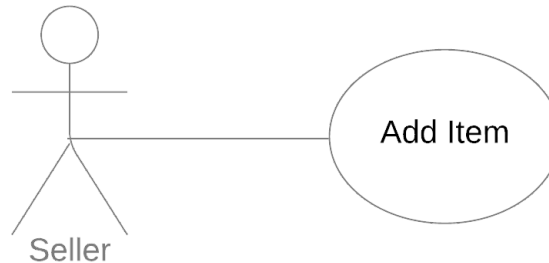


- Brief Description: This use case enables customers to track the shipment details of the product
- Initial Step-by-Step Description: Before this use case the customer must have completed the login and Purchase item use cases.
 1. The customer viewing the Home page clicks the “Track Order” button
 2. Here the customer has to put his specific track number into the search bar and click the “Track” button
 3. Once the customer clicks the track button, all the shipment details will be displayed on the screen.
- Xref: Section 3.2.1 “Track Order”

2.2.2. Seller Use Cases:

Use Case: Add Item

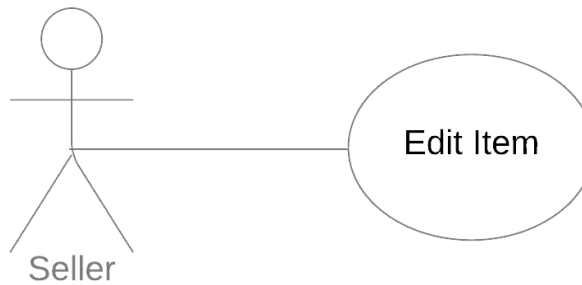
- Diagram:



- Brief Description: Allows the seller to add a new product to his offerings in the inventory.
- Initial Step-by-Step Description: Before initiating this use case, the seller must have registered on the platform.
 1. From the dashboard page of his inventory, the seller clicks the “Add Item” button to start the Add Item wizard.
 2. Then, the seller must proceed with the attributes and brief description of the product he wishes to sell.
 3. Next, the seller can add a promotion that will redirect to the Add Promotion functionality; otherwise, he can do it later using the Add Promotion button.
 4. Finally, the seller has to specify the initial stock and the price per quantity.
 5. The seller can also enable the low stock email notification.
- Xref: Section 3.2.2 “Add Item”

UseCase: Edit Item

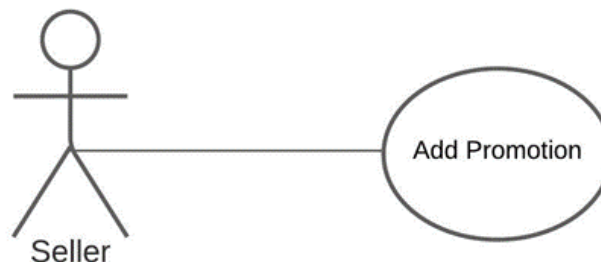
- Diagram:



- **Brief Description:** This option enables the seller to edit an existing item in his inventory to make desired changes.
- **Initial Step-by-Step Description:** Before initiating this functionality, the inventory must have the desired item added to it.
 1. The seller presses on the “Edit Item” button from his inventory dashboard.
 2. Next he has to choose the items to be modified.
 3. On the next page, the seller would have the option to change the description, attributes, price, stock, availability, etc. of the item.
 4. On completion of the desired changes, the seller would be prompted to finalize the changes or cancel the process.
 5. On clicking the finalize button, the changes are saved in the database and the front-end is updated in a short interval of time.
- **Xref:** Section 3.2.2 “Edit Item”

Use Case: **Add Promotion**

- **Diagram:**



- **Brief Description:** This allows the seller to add special promotions and offers to an item.
- **Initial Step-by-Step Description:** Before initiating this use case, the seller must have completed 'Add Item' and 'Edit Item (pertaining to certain constraints)' use cases.
 1. The seller selects an available item for adding a promotion to it.
 2. After selecting an item, the seller will be prompted to choose the type of offer to add, namely:
 - a. Cash Discount
 - b. Limited Period Discount
 - c. Promo Code
 3. If the seller chooses the 'Cash Discount' option, he will be required to enter the discount percentage over MRP. However, if the seller chooses 'Limited Period Discount', additionally he will be required to enter offer duration too.
 4. If the seller chooses the 'Promo Code' option, then he will be prompted to enter a unique 'promo code' for the selected product along with the discount percentage over MRP for the particular item.
 5. Once the seller confirms all the details, the system will update the product details.
- Xref: Section 3.2.2 "Add Promotion"

Use Case: **Edit Promotion**

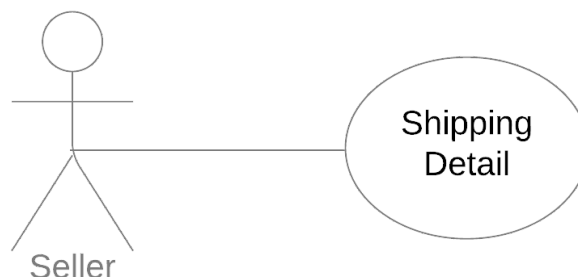
- **Diagram:**



- **Initial Step-by-Step Description:** Before initiating this use case, the seller must have completed the 'Add Item' and 'Add Promotion' cases.
 1. The seller selects an available item with active promotion.
 2. After choosing an item, the seller needs to select the 'Edit Promotion' option. Now, the seller will be redirected to the 'Edit Promotion' page.
 3. On the 'Edit Promotion' page, the seller will be provided an option to either 'stop', 'pause' or 'modify' the offer.
 4. If the seller chooses the 'stop' option, the active offer will indefinitely become inactive.
 5. If the seller chooses the 'pause' option, he will be required to enter the halt duration during which the offer will remain inactive. Once the period completes, the offer will again become active.
 6. Similarly, if the seller chooses the 'modify' option, he will be prompted to modify details of the offer (discount, Promo code, etc.).
 7. Once the seller confirms their choice, the system will update the product details accordingly.
- Xref: Section 3.2.2 "Edit Promotion"

Use Case: **Shipping Detail**

- **Diagram:**

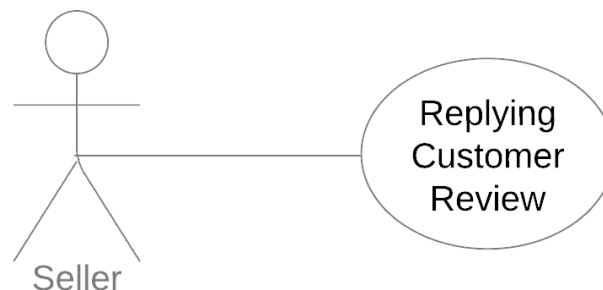


- **Brief Description:** This use allows the seller to notify the system that the order has been shipped.

- **Initial Step-by-Step Description:** Before initiating this use case, the 'Add item' use case must be attempted.
 1. Once the customer has placed the order then the seller will check his availability of the product in the stock
 2. On Dashboard, there is a view orders option when sellers click on it the list of all orders that are given to sellers will be displayed.
 3. On a specific order, there is an option to add shipping details where the seller fills in all the shipping details and submits them.
- Xref: Section 3.2.2 "Shipping Detail"

Use Case: **Replying Customer Review**

- **Diagram:**



- **Brief Description:** This use allows the seller to reply to the customer review about his product
- **Initial Step-by-Step Description:** Before initiating this use case, the 'Add item' use case must be attempted and the User must have added a review about that .
 1. Once the seller has added his product by the 'Add item' use case.
 2. The comment section will be created at the bottom of the product page where the customer writes their reviews about the product
 3. Once the customer has written the review this is the 'Reply' button on clicking on that the seller can add his comment to it

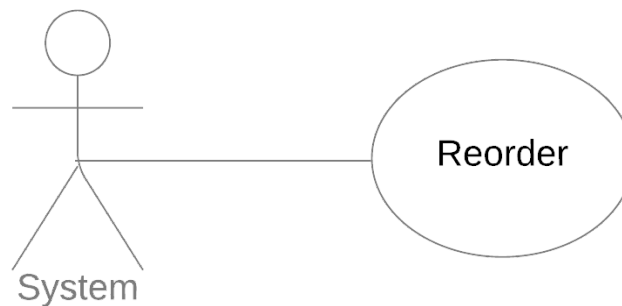
4. By clicking the 'Submit' button the seller can add his reply to the customer review.

- Xref: Section 3.2.2 "Replying Customer Review"

2.2.3. System Use Cases:

Use Case: Reorder

- Diagram:



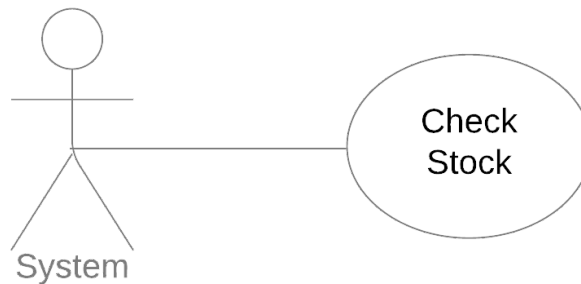
- Brief Description: This allows the customer to automatically reorder certain items.
- Initial Step-by-Step Description: Before initiating this use case, the customer must have completed the 'Purchase Item' use case for the desired item before reordering it.
 1. For each item purchased successfully, the customer will have an option to reorder it automatically.
 2. If the customer enables the 'reorder' feature (option available for an item after successful purchase), the system will check the stock of that item with the seller.
 3. Once a customer chooses the 'reorder' facility, he will be prompted to enter the period, after which the system will automatically reorder.
 4. After entering the period, the customer will enter the quantity to reorder.
 5. If the selected item is in stock with the seller, the system will request the 'Check Stock' feature for approval. Once approved, the system will automatically place an order for the selected item and

will inform the customer and the seller about the successful ordering.

- Xref: Section 3.2.3 “Reorder”

Use Case: **Check Stock**

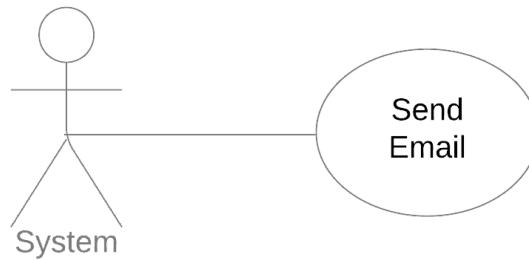
- Diagram:



- Brief Description: Checks the available stock of an item before approving a reorder request by the system.
- Initial Step-by-Step Description: Before initiating this use case, the ‘Reorder’ use case must be attempted.
 1. Once a reorder request is received, the system will automatically check the available stock of that item with the seller.
 2. If the reorder quantity is above the available stock, the system approves the ‘reorder request’.
 3. If the reorder quantity is below the available stock, the system will reject the ‘reorder request’ and will inform the customer and seller about the rejected request
- Xref: Section 3.2.3 “Checkstock”

Use Case: **Send Email**

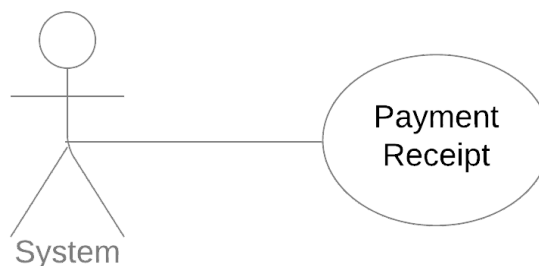
- Diagram:



- **Brief Description:** Used by various other use cases to notify the user of critical information.
- **Initial Step-by-Step Description:** Before initiating this use case, required use cases must be performed.
 1. The system performs this functionality as an automated response to change in the state.
 2. Say the stock is low; in such a situation, an email is sent to the seller notifying him of low stock in the inventory.
 3. The system initiates this functionality every time an order is completed. A receipt of the payment is sent to the seller.
 4. Similarly, promotional emails are sent to the customers regularly.
 5. The customer is also notified of the delivery of the product through emails.
- **Xref:** Section 3.2.3 "Send Email"

Use Case: **Payment Receipt**

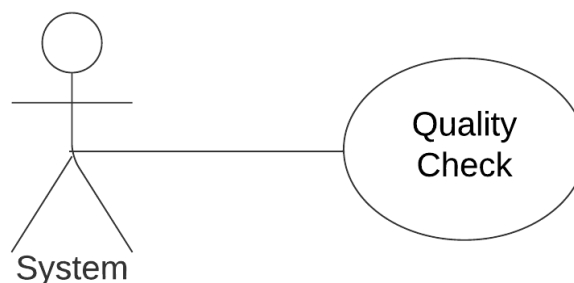
- **Diagram:**



- **Brief Description:** This functionality by system generates a receipt after the order has been completed by the customer and mails the same to the users.
- **Initial Step-by-Step Description:**
 1. Once the customer has placed an order, the system will generate a payment receipt.
 2. The details of transactions are borrowed from the payment gateway.
 3. The corresponding receipt is attached to an email and sent to the seller and the customer.
 4. The seller can turn off this functionality if he wants to. In such a case, the payment details would be stored in the database and would be presented to the seller in the weekly report.
- Xref: Section 3.2.3 “Payment Receipt”

Use Case: **Quality Check**

- **Diagram:**

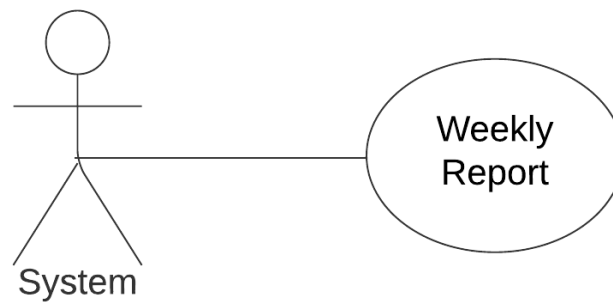


- **Brief Description:** Checks the quality of product and notifies the seller about it
- **Initial Step-by-Step Description:** Before initiating this use case, the seller must have ‘Add item’ use case must be attempted
 1. For each item that is added by the seller, the quality check is performed by the system.
 2. Quality check is performed on the basis of rating or review given by the customer about the product.

3. If the rating of the product is less than the threshold rating the system will automatically send an email to the seller about the product quality.
- Xref: Section 3.2.3 “Quality Check”

Use Case: **Weekly Report**

- Diagram:



- Brief Description: This functionality by system generates a report which is sent to the seller on the weekly basis
- Initial Step-by-Step Description: Before initiating this use case, the seller must have ‘Add item’ use case must be attempted
 1. The system generates a weekly report of an item and sends that to the seller by email.
 2. This report basically contains all the information of item like
 - a. How many items are sold by the Seller
 - b. How much revenue does the seller generate this week?
 - c. What are the reviews and ratings of the item listed on the website etc?
 3. If the user has added more than one item then a single report is sent which consists of all the information of each product.
- Xref: Section 3.2.3 “Weekly Report”

2.3. User Characteristics:

Both customer and seller are expected to be internet literate with experience in either Windows, IOS, or Android. However, a brief tutorial (relating to the use of the application) would be provided to the seller upon registering on the platform.

Seller and customer are expected to have access to at least a moderate-speed internet connection.

2.4. Non-Functional Requirements:

As mentioned previously, the web application will be hosted on Amazon Web Services (AWS) to eliminate the need of having a physical server connected to a high-speed internet connection round the clock.

The application will have a lightweight design, catering to users across devices and platforms, reducing bandwidth usage.

3. Requirements Specifications:

3.1. External Interface Requirements:

We are using a third-party payment gateway, 'Razorpay' to process and validate payments. Razorpay is a viable choice because it is fast, secure, and trusted by many existing and prior users.

3.2. Functional Requirements:

3.2.1. Customer Use Cases:

Login

Use case name	Login
X-Ref	Section 2.2.1, 'Login' use case
Trigger	The customer selects the 'login' option on the application home page.

Precondition	The customer must have an active internet connection and the home page should load successfully.
Basic Path	<ol style="list-style-type: none"> 1. The user selects the 'login' option on the home page. 2. Now, he enters his login credentials (registered email id and password) 3. He then selects the submit option
Alternative Path	<p>If in Step 2, the entered credentials are incorrect, the customer will have an option to reset their password using the 'forget password' option.</p> <ol style="list-style-type: none"> 1. The customer selects the 'forget password' option. 2. A verification email is sent to the user's registered e-mail id. 3. The customer opens the mail and clicks on the password reset link. 4. He enters and verifies the new password and clicks on the 'confirm' option. 5. The customer repeats the basic path, but with the newly set password.
Postcondition	The customer successfully logs in to their account.
Exception Paths	The customer may abandon the login attempt at any moment.
Other	None.

Logout

Use case name	Logout
X-Ref	Section 2.2.1, 'Logout' use case
Trigger	The user selects the 'logout' option present on the user menu bar.

Precondition	The customer is logged in to their account.
Basic Path	<ol style="list-style-type: none"> 1. The customer selects the 'logout' option. 2. He is prompted to confirm the logout attempt. 3. If the user confirms, he is logged out of his account and the application returns to the home page.
Alternative Path	<p>In Step 2, when prompted to confirm the action, the customer may select the 'cancel' option.</p> <p>If the 'cancel' option is selected, the logout attempt is automatically aborted.</p>
Postcondition	The customer is successfully logged out.
Exception Paths	If the internet disconnects during the logout procedure, the system still logs the user out when reconnected.
Other	None.

Browse Inventory

Use case name	Browse Inventory
X-Ref	Section 2.2.1, 'Browse Inventory' use case
Trigger	The customer assesses the inventory
Precondition	The customer is logged in to their account
Basic Path	<ol style="list-style-type: none"> 1. The user searches for a product using the search bar option. Once the user searches for an item, the system presents them with a list of the most similar items on the web page with default sorting.

Alternative Path	<p>After searching for an item using Step 1, the customer will have an option to sort items according to their price, rating reviews and available quantity.</p> <ol style="list-style-type: none"> 1. If the customer sorts the item list according to their price, rating or reviews, the system will automatically sort the list optimally and will present it to the customer.
Postcondition	The customer can now access the sorted list of items.
Exception Paths	The customer may reset the 'sort' option to display the item without custom sorting.
Other	This use case is crucial for keeping the item search and application simple for the customer.

Add Items to Cart

Use case name	Add Item to Cart
X-Ref	Section 2.2.1 "Add Item to Cart" use case
Trigger	The customer clicks the "Add Item to Cart" button on the item web page.
Precondition	The customer must be logged into their user account.
Basic Path	<ol style="list-style-type: none"> 1. When viewing the item web page, the user is presented with the option to add the current item to the cart. 2. On pressing the button, the user is prompted with the desired quantity of the item to be added to the cart. 3. After entering the quantity, the total price of the item is displayed to the user. 4. Finally, the item is added to the cart.

Alternative Path	The user can also directly add an item from the inventory list as well. The same button is presented next to the item name in the list. On pressing the button the item is added to the cart.
Postcondition	The items are added to the cart.
Exception Paths	During connection failure, the current cart is saved so as to avoid discomfort to the customer. The user can empty the cart at any time.
Other	None.

Checkout

Use case name	Checkout
X-Ref	Section 2.2.1 “Checkout” use case
Trigger	The action is triggered by clicking the checkout button from the cart.
Precondition	The customer must have at least one item in the cart.
Basic Path	<ol style="list-style-type: none"> 1. On clicking the “Checkout” button, the system starts the Checkout function. 2. The customer is presented with the list of items that he has added to the cart with the quantity and price of each item. 3. A gross total is shown at the end of the list. The GST is mentioned next. 4. A confirm prompt is displayed before finally proceeding to the payment gateway.
Alternative Path	None.
Postcondition	The checkout is successful.
Exception Paths	In case of payment failure, the system generates a failed signal, and the customer is

	returned to the cart.
Other	None.

Use Promotion

Use case name	Use Promotion
X-Ref	Section 2.2.1 “Use Promotion” use case
Trigger	This functionality is triggered when the user is going through the payment gateway. The user is prompted to apply for the discount.
Precondition	The user must have completed the checkout process and should be proceeding through the payment step.
Basic Path	<ol style="list-style-type: none"> 1. When the user confirms the checkout, the user is redirected to the payment process. 2. There, user is prompted to apply the discount as upheld by the seller. 3. Loyal customers are checked by the system and discounts on a random basis are provided to them. 4. The customer can also avail of other promotional offers as mentioned by the seller.
Alternative Path	Users who signed up through referrals are provided a time sign-up discount which is available for a limited period of time.
Postcondition	The price of the item is discounted by the system.
Exception Paths	If a user tries to avail multiple discounts, only the higher one is applicable, the rest are discarded. The user can choose not to apply for a discount.
Other	None.

Add Review

Use case name	Add Review
X-Ref	Section 2.2.1, 'Add Review' use case
Trigger	This use enables customers to write a review of a specific item or products
Precondition	The customer is logged in to their account
Basic Path	<ol style="list-style-type: none">1. When viewing the item web page, the user is presented with the option to Add Review.2. On pressing that button a Dialog box is created where the user gives a rating and writes about the product.3. Finally after clicking submit button user review is added to the review section
Alternative Path	None
Postcondition	The user must give a rating and must write something about it.
Exception Paths	In case the connection drops, the current review saved and when it retrieves he can again continue from that point
Other	None

Track Order

Use case name	Track Order
X-Ref	Section 2.2.1, 'Track Order' use case
Trigger	This Functionality is triggered when buyers or customer clicks the “ Track ” button

Precondition	The customer is logged in to their account
Basic Path	<ol style="list-style-type: none"> 1. The customer or buyer viewing the Home page clicks the “Track Order” button 2. The customer or buyer is prompted to the new page. 3. On this page, a search bar is there where the user enters his tracking number. 4. Then press the "Track" button after that all the shipping details will appear.
Alternative Path	None
Postcondition	The shipping detail of item or product is listed
Exception Paths	In case the tracking number is wrong the use case is abandoned. The user can abandon the operation any time.
Other	None

3.2.2. Seller Use Cases:

Add Item

Use case name	Add Item
X-Ref	Section 2.2.2 “Add Item” use case
Trigger	This functionality is triggered when the seller presses on the “Add New Item” button in the inventory.
Precondition	The seller must be registered with the platform.
Basic Path	<ol style="list-style-type: none"> 1. On pressing the “Add New Item”, the system creates a new entry in the inventory table of the seller. 2. The seller is then prompted to add the item name, initial stock, item attributes, price, promotion(optional), and images of the product.

	<ol style="list-style-type: none"> After filling out the necessary details, the user is presented with a confirm dialog box. On clicking the confirm button, the item is added to the inventory.
Alternative Path	In step 2, if there is no entry for the price in the database or on this grid, the seller will be prompted for an entry. No validation for correctness is made.
Postcondition	The product has been added to the database.
Exception Paths	The seller may abandon the operation at any time.
Other	None.

Edit Item

Use case name	Edit Item
X-Ref	Section 2.2.2 “Edit Item” use case
Trigger	This functionality is triggered when the seller presses the edit item button in the inventory.
Precondition	The item to be edited must be present in the inventory and the seller must be logged in.
Basic Path	<ol style="list-style-type: none"> The seller selects the edit item option. The system creates and presents an alphabetical list of items in the inventory. The seller selects an item to update. The system presents the database information in grid form for modification. The seller updates the information and submits the form. The system checks if the field required are not blank.
Alternative Path	In step 5, if any required field is blank, the seller is instructed to add an entry. No

	validation for correctness is made.
Postcondition	The database has been updated.
Exception Paths	If the item is not already in the database, the use case is abandoned. In addition, the seller may abandon the operation at any time.
Other	None.

Add Promotion

Use case name	Add promotion
X-Ref	Section 2.2.2, 'Add promotion' use case
Trigger	The seller selects the 'Add Promotion' present on the dashboard or chooses the option while adding the item (using 'Add Item' functionality).
Precondition	The seller must be logged in to their account, and they should have already listed the item (using the 'Add Item' function)
Basic Path	<ol style="list-style-type: none"> 1. The seller selects an item on the dashboard. 2. The seller selects the 'Add Promotion' option for that item. 3. If the seller selects the 'Cash Discount' option, he will need to enter the discount percentage over the product's MRP. 4. The seller confirms the details and selects the 'Apply' option, and now he is redirected to the dashboard.

Alternative Path	<p>If in step 3, the seller chooses 'Limited Period discount', he will need to enter the offer duration as well. The process will continue from Step 4.</p> <p>Similarly, if in Step 3, the seller chooses the 'Promo Code' option, then he will need to enter a unique 'promo code' for the selected product along with the discount percentage over MRP for the item. The process will continue from Step 4.,</p>
Postcondition	The information regarding the product is updated.
Exception Paths	The seller may cancel the process of adding the promotion at any moment.
Other	None.

Edit Promotion

Use case name	Edit Promotion
X-Ref	Section 2.2.2, 'Edit Promotion' use case.
Trigger	The seller selects the 'Edit Promotion' option on the dashboard, available for products with an active promotion.
Precondition	The seller must have added an offer to the selected item.
Basic Path	<ol style="list-style-type: none"> 1. The seller selects an item with an active offer. 2. The seller selects the 'Edit Promotion' option for that item. 3. If the seller selects the 'stop' option, the active offer will indefinitely become inactive.

	4. The seller verifies the details and selects the 'Apply' option, now he is redirected to the dashboard.
Alternative Path	<p>If in step 3, the seller selects the 'pause' option, he will be required to enter the halt duration during which the offer will remain inactive.</p> <p>Once the period completes, the offer will again become active.</p> <p>The process will continue from Step 4.</p> <p>Similarly, if in Step 3, the seller chooses the 'modify' option, he will need to modify the details of the active offer. The process will continue from Step 4.</p>
Postcondition	The information regarding the promotion is updated.
Exception Paths	If the customer selects the 'cancel' option, the process will terminate, and the offer will remain unchanged.
Other	None.

Shipping Detail

Use case name	Shipping Detail
X-Ref	Section 2.2.2, 'Shipping Detail' use case
Trigger	This use allows the seller to notify the system that the order has been shipped
Precondition	The item that is shipped must be listed in inventory and the seller must be logged in
Basic Path	<ol style="list-style-type: none"> 1. The seller selects the view order option from dashboard 2. A list of all orders is listed on that the seller's select option "Add Shipping details" of specific order

	3. Then sellers fill out the form and submit it. Then all the shipping details are sent to the system.
Alternative Path	The seller can directly view order details from the home page once he is logged in and after that, all the steps will remain same
Postcondition	The information regarding the shipping added to the system database
Exception Paths	The seller may cancel the process of adding the shipping detail at any moment.
Other	None

Replying Customer Review

Use case name	Replying Customer Review
X-Ref	Section 2.2.2, 'Replying Customer Review' use case
Trigger	The seller selects "Reply" button while replying to the user review
Precondition	The seller must be logged in to their account, and they should have already listed the item (using the 'Add Item' function) The user must have added a review to that product(using the 'Add Review' function)
Basic Path	<ol style="list-style-type: none"> 1. The seller selects an item on the dashboard. 2. The seller moves to comment section 3. The seller replies to the customer review by clicking on the reply button 4. The seller writes his review and submits it.
Alternative Path	Instead of step 1 the seller can directly search the product from the home page and do other steps as it is
Postcondition	The seller must write something about it.

Exception Paths	The seller may abandon the operation at any time.
Other	None

3.2.3. System Use Cases

Reorder

Use case name	Reorder
X-Ref	Section 2.2.3, 'Reorder' use case
Trigger	The customer must have activated the 'reorder' feature for an item purchased.
Precondition	The current date is of reordering period's starting date.
Basic Path	<ol style="list-style-type: none"> 1. The system sends a request to the 'Check Stock' use case for its approval. 2. Once approved, the system automatically reorders the item (or multiple items) using the specified payment method. 3. A receipt of the purchase is sent to the customer and seller by the system automatically.
Alternative Path	If in Step 1, the 'reorder' request is rejected because of low stock availability, the customer and seller will be notified of the failed attempt through an email. The succeeding steps will be aborted.
Postcondition	The specified quantity of the item is ordered.
Exception Paths	If in step 2, the payment fails on the gateway, the customer is notified of the failed transaction attempt.
Other	None.

Check Stock

Use case name	Check Stock
X-Ref	Section 2.2.3 “Check Stock” use case
Trigger	The ‘reorder’ use case sends an approval request to the ‘Check Stock’ use case.
Precondition	The internet connection of the customer must be active throughout the reordering process.
Basic Path	<ol style="list-style-type: none">1. After receiving the approval request, the system checks with the seller’s inventory for a sufficient quantity of the requested item.2. If the seller’s inventory has sufficient quantity, the system approves the reordering request.
Alternative Path	If the seller’s inventory is either low on stock of the product or it is currently out of stock, the system rejects the reordering request.
Postcondition	The system approves the reordering request and the ‘reorder’ use case continues with its process.
Exception Paths	None.
Other	None.

Send Email

Use case name	Send Email
X-Ref	Section 2.2.3 “Send Email” Use Case
Trigger	During the automated routines.
Precondition	The user must have provided their emails to the system.

Basic Path	<ol style="list-style-type: none"> 1. This functionality requires some pre-specified conditions like low stock, payment success, order shipped, etc to be completed. 2. On a successful trigger, emails are sent to the user regarding the on-hand situation.
Alternative Path	In case the user has turned off notifications, only critical information is communicated through the mail marked as urgent.
Postcondition	The user is notified of the situation.
Exception Paths	In case of communication failure, the user is notified again.
Other	None.

Payment Receipt

Use case name	Payment Receipt
X-Ref	Section 2.2.3 "Payment Receipt" use case
Trigger	Thus, functionality is triggered by the system whenever a customer completes a transaction.
Precondition	The customer must have completed the transaction.
Basic Path	<ol style="list-style-type: none"> 1. Once the payment confirmation from the payment gateway is received by the system, the system calls the payment receipt process. 2. An invoice of the payment generated by the system including the details of the transaction. 3. The receipt is then mailed to the seller through the send mail functionality.
Alternative Path	The seller can turn off the payment notification if he wishes to. In such a situation, the payment information is displayed cumulatively in the weekly report.

Postcondition	A receipt of the transaction is mailed to the seller.
Exception Paths	If the user terminates the payment, the email draft is discarded.
Other	None.

Quality Check

Use case name	Quality Check
X-Ref	Section 2.2.3 “Quality Check” Use Case
Trigger	The system checks the quality of product
Precondition	The inventory must have at least one item and the seller must have provided his email to the system
Basic Path	<ol style="list-style-type: none"> 1. This functionality requires some pre-specified conditions like rating and reviews given by the users 2. Once the rating is below the threshold one automatically an Email will be sent to the seller
Alternative Path	In case the user has turned off notifications, only critical information is communicated through the mail marked as urgent.
Postcondition	The user is notified about his product quality
Exception Paths	In case of communication failure, the user is notified again.
Other	None

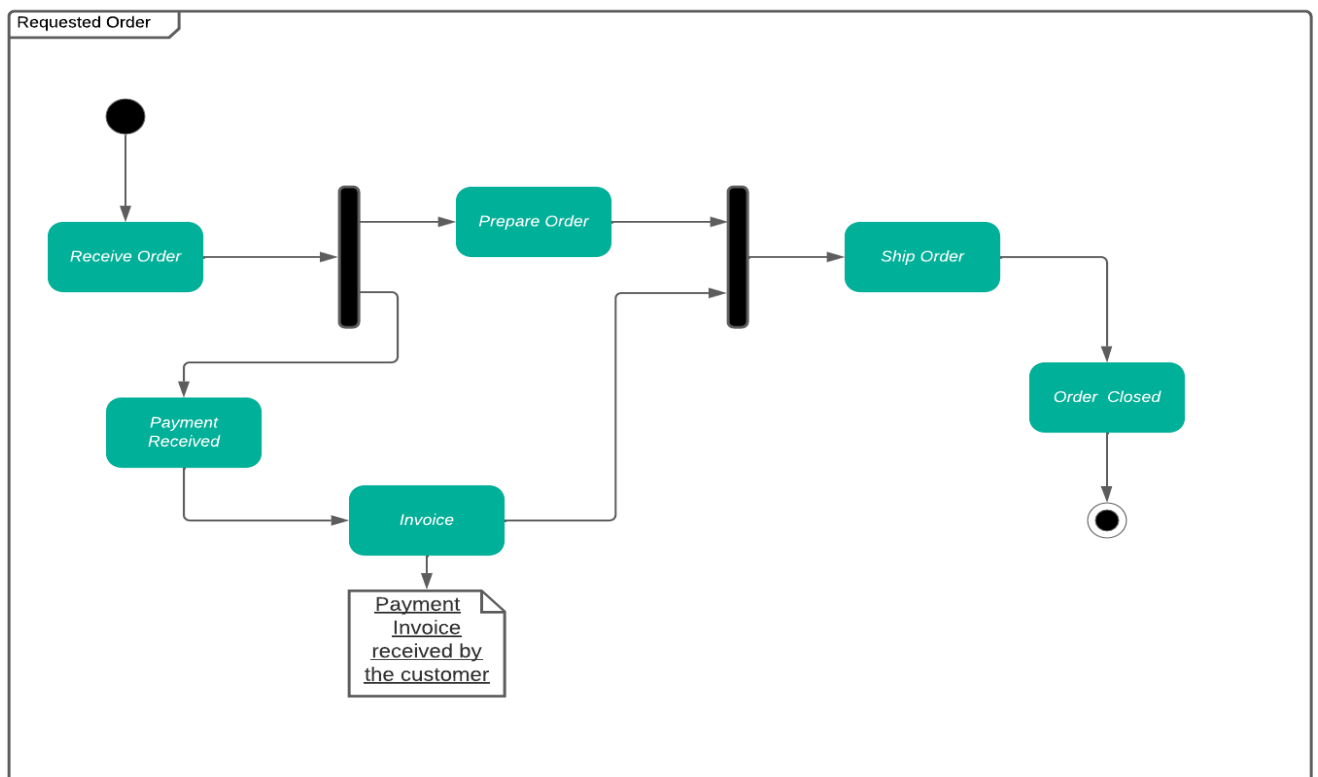
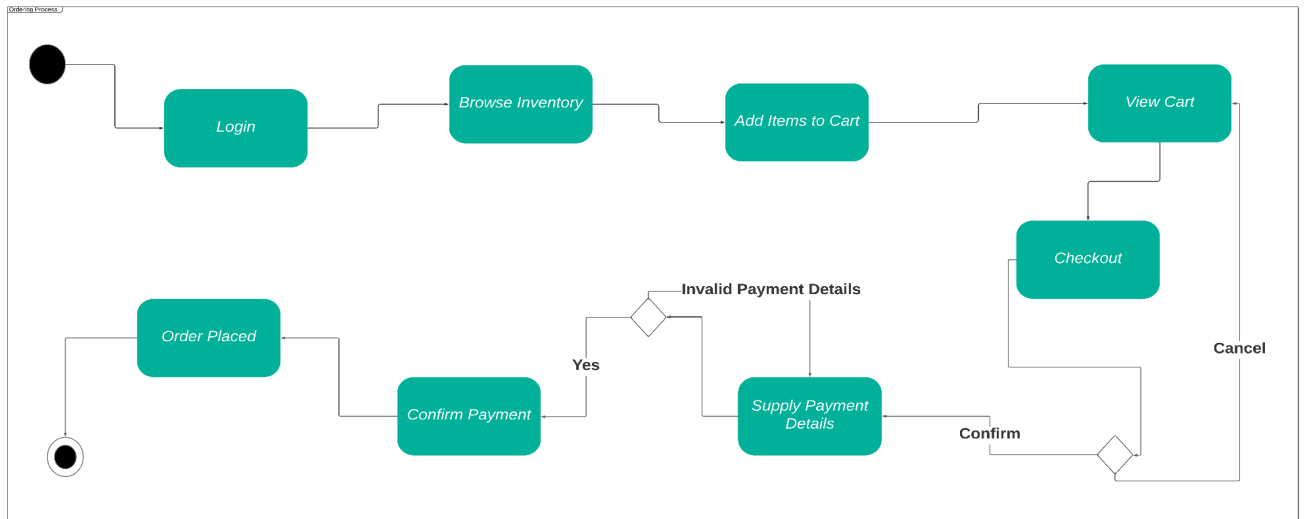
Weekly Report

Use case name	Weekly Report
X-Ref	Section 2.2.3 “Weekly Report” Use Case

Trigger	The system has done all the analysis about the items that are listed in inventory
Precondition	The inventory must have at least one item and the seller must have provided his email to the system
Basic Path	<ol style="list-style-type: none"> 1. This functionality requires some predefined conditions like reviews, the total number of items sold, the total amount of revenue generated. 2. Once the system collects all this data then it sends the email to the seller which contains all of the above information.
Alternative Path	The system can also send this information on a monthly basis as preferred by the user.
Postcondition	The user is notified about the growth of his product
Exception Paths	In case of communication failure, the user is notified again.
Other	None

3.3. Detailed Non-Functional Requirements:

3.3.1. Activity Diagram



3.3.2. Security

The website will be hosted on a third-party cloud service provider such as Amazon AWS which is very secure as it is monitored by Amazon Security. The user details such as email id and password will be first hashed and then encrypted and then stored into the database table such that there is no risk of a direct attack on the database.

The payment transaction is done by using a third-party payment gateway that is Razorpay which provides a secure gateway to carry out the transaction.