Phase3-Feedback: G2-s3
-[3.1] Scenarios: B-/C+ have issues, check individually
[3.2] Actor Description: A- , reasonably written - check as a group
[3.3] Overall Use-Case Diagram: B , has several issues, check as a team
and match with scenarios and described use cases
[3.4] Described use-cases:B-/C+ , have issues, check individually
[3.5] Overall Activity Diagram: C+, some issues, check as a team.
[3.6] Individual Activity Diagrams:B-/C+ , some have issues, check individually

Noted Names of the members of the team who have contributed to the team-tasks, on each of the team-tasks: Actors Descriptions, Overall Use Case diagram, Activity Diagram
Overall Mark/Evaluation:(B+): needs Major improvements
Individual Mark: individual mark will be combined together and provided on all individual tasks in the final report [check feedback on your individual tasks]
- issues/comments, for team-tasks and individual-tasks, are addressed for the final report, tasks may get reconsidered.

Software Project – Phase 3

Prepared By:

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COMP433 – Section 3

Birzeit
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Table of Contents

1. Task: Scenario Analysis

Should be a stadnalone scenario for the business service?
Scenario should focus on the business, to achieve a business service

B

1.1 Scenario 1 - Browsing Coffee Beans

Author: Jana Sawalmeh

Initial assumption, in a separate section, should describe a state at which this service can be invoked.e.g. a user must be logged in

Initial Assumptions:
The customer is accessing the Coffee Beans Shop System through a standard w with a stable internet connection. The system database contains up-to-date i about available raw coffee beans, including brand, origin, price, and stock stat ing, searching, filtering, and cart functionalities are fully operational. The user may or may not be logged into the system.

Normal Flow:
The customer opens the *"Browse Coffee Beans"* section from the main n The system displays all available raw coffee beans in a grid layout, shov mation such as bean name, brand, origin, price, and availability status selects a specific brand and origin, sets a preferred price range, and enable *Only"* filter. The system immediately refreshes the displayed results to ma stomer then sorts the results by price in ascending ord uct to view its full details. On the product details pag al information and clicks *"Add to Cart."* The system adds shopping cart and displays a confirmation message indicating successful

Reasonable valid described normal scenario?- needs to be specific, normal or default method of achieving the specific business service, and provide clearer description detailing How the scenario/ process to be achieved

is this scenario about adding to cart? or browsing? they are different

Alternative Flow 1:
Instead of using filters, the customer enters a partial keyword the search bar. The system provides auto-complete suggestions fee beans. The customer selects one of the suggested options, matching products. The customer chooses a product from the r information, and clicks *"Add to Cart."* The system confirms th message.
→ *Successful Output?* Yes

this also considered as a filter option.

valid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

invalid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

coffee beans without logging into the system. The system allows g, filtering, and viewing of product details. However, when the lick *"Add to Cart,"* the system prompts the user to log in or create an account before proceeding.
→ *Successful Output?* Yes

Alternative Flow 3:
The customer clicks *"Add to Cart"* directly from the product grid without opening the product details page. The system adds the selected coffee bean to the cart immediately and updates the cart icon to reflect the new item count. A bri displayed.
→ *Successful Output?* Yes

Again, you mentioned it's a BROWSING scenario.

invalid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

Error Flow:

The customer applies multiple filters that result in no matching coffee beans (e.g., a specific origin combined with a high price range and out-of-stock status). The system displays the message:
"No coffee beans found. Please adjust your filters or c
may remove one or more filters and retry the search
available, the customer may continue browsing and a
the customer may leave the browsing section or contac
→ *Successful Output?* No

invalid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

System State on Completion:
The system records browsing behavior, including search keywords, selected filters, viewed products, and cart actions, for analytics and reporting purposes. If a coffee bean product is viewed or added to the cart, the session state is updated accordingly. The system may also recommend similar or popular coffee beans. Inventory quantities remain unchanged until an order is confirmed during checkout.

1.2 Scenario 2 – Placing an Order

Should be a stadnalone scenario for the business service?
Scenario should focus on the business, to achieve a business service

A-

Author: Osaid Nur

Initial Assumptions:
The user is logged into their customer account, has previously added ite
ping cart, and is connected to the internet. The inventory contains all se
the checkout interface is operational.

Initial assumption, in a separate section, should describe a state at which this service can be invoked.e.g. a user must be logged in

Normal Flow:
The user accesses their shopping cart to review the selected items, ensurin
product names, quantities, prices, and total cost are accurate. Once satisfie
proceeds to checkout, where they are prompted to select a delivery method. T
home delivery and enter a valid delivery address. Following this, the user selects
method, such as a credit card, and provides the required payment details. T
then verifies that all items are still available in the inventory and processes the
If the transaction is successful, a confirmation message is displayed on the screen
is sent to the user's email address, and the order is marked as "Confirmed".

Reasonable valid described normal scenario?- needs to be specific, normal or default method of achieving the specific business service, and provide clearer description detailing How the scenario/ process to be achieved

Alternative Flow 1 – In-Store Pickup Option:
The user opens their shopping cart and reviews the items they previously added. After
confirming the cart contents are correct, they proceed to ch
select a delivery method, the user chooses in-store pickup ins
proceed to select a payment method and enter the required p
checks inventory availability and processes the payment. If t
a confirmation message is shown on-screen, a receipt is sent t
order is recorded with the status "Confirmed".

valid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

→ *Successful Output? Yes*

poor valid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

Cart Modification Before Checkout:
shopping cart and reviews the selected items. Before proceeding to
make changes to the cart, such as adding or removing an item, or
The system recalculates the total cost and update the quantities
ser is satisfied, they continue to the checkout page, where they are
elivery method. The user chooses home delivery and provides a
valid delivery address. After that, they select a payment method and enter the necessary
payment details. The system verifies the availability of the selected items and processes
the payment. If successful, a confirmation message is displayed on screen, a receipt is sent
to the user's email, and the order is marked as "Confirmed".

→ *Successful Output? Yes*

Error Flow 1 – Item Unavailable During Checkout:
The user opens their shopping cart, verifies the selected ite
After choosing a delivery method (either home delivery or
the required address or pickup details, the user selects a p
payment information. Before finalizing the payment, the s
and finds that one or more items in the cart are no long

valid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

system stops the checkout process and displays a message saying that Some items are no longer available. The user is redirected back to the cart to update it accordingly. No payment is processed and no order is created.

→ *Successful Output? No*

Error Flow 2 – Payment Failure:
The user accesses their shopping cart, reviews the selected products, and continues to checkout. They choose a delivery meth very address or in-store pickup. After that, they select ayment details. The system checks item availability ock. However, during the payment process, the trans ufficient funds, expired card, or invalid information. ssage that the payment was unsuccessful .The user d is given the option to retry the transaction with corrected information or to cancel the order process entirely.

valid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

→ *Successful Output? No*

System State on Completion:
If successful, the system updates inventory, creates an order with status "Confirmed", and schedules the delivery or pickup. In case of error, no order is created, and the user is prompted to fix the issue before retrying.

1.3 Scenario 3 – Register Account

C+

Should be a stadnalone scenario for the business service?
Scenario should focus on the business, to achieve a business service

Initial assumption, in a separate section, should describe a state at which this service can be invoked.e.g. a user must be logged in

Author: Mumen Anbar

Initial Assumptions:
The user has a stable connection to the internet and using his desktop browser in order to log into the system, The system is prepared for giving responses and ready to serve the user regerstration's request. The user is using the usual registration form and has not yet registered for the system.

Normal Flow:
The user proceeds to the "Registeration" pa bligatory information: complete name, email, password, and phone m carries out real-time validation (for example, checking if it's an ac the password is strong enough). After that, the user is allowed to ch roducts (e.g. raw coffee beans), but it's optional. After clicking "Re ecks if the given email address is in use. If there's no identical accou ered, and an activation email is sent. The user is either signed in o gin page depending on the server configurations.

POOR valid described normal scenario?- needs to be specific, normal or default method of achieving the specific business service, and provide clearer description detailing How the scenario/ process to be achieved

Alternative Flow 1:
On the next page, after entering their pr op up an optional section for choosing product intere egories or proceeds without any selection. Afterwards t creation like in the normal flow.
→ *Successful Output?* Yes

POOR valid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

Error Flow 1:
The user enters an error, perhaps a typo in their emai flags the error, and will prevent them from registering u
→ *Successful Output?* No, the user must fix errors to c

invalid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

invalid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

user if the email address entered is already in use: "The entered ase log in or use some different email." Requests for the use of r for redirecting to the login page are required.
→ *Successful Output?* No, account not created with original email.

System State on Completion:
Then, upon the success of the registration process, the system generates a log describing the event, sends an email notification to the user to confirm the success of the process, and stores the information of the user in the system securely. Otherwise, it stores no account but logs the event. Finally, the session ends with either account creation or the termination of the session by the user.

1.4 Scenario 4 – Request Return or Refund

Should be a stadnalone scenario for the business service?
Scenario should focus on the business, to achieve a business service

C+

Author: Waleed Rimawi

Initial Assumptions:

Initial assumption, in a separate section, should describe a state at which this service can be invoked.e.g. a user must be logged in

The user is logged into their account and is ac a a desktop browser with a stable internet connection. The item wa the platform and is still within the return window. The item is mar the system, and the order history and return interface are fully func

Normal Flow:

POOR valid described normal scenario?- needs to be specific, normal or default method of achieving the specific business service, and provide clearer description detailing How the scenario/ process to be achieved

The user opens the "Order History" section, expands the r cks "Return Item" next to the product. A return form appears ons (e.g., "Damaged", "Not as described") and an optional commen sion, the system shows return options (e.g., pickup scheduling) and The user selects a method and confirms. A return confirmation is sh provided to download or/and email. The item's status updates to " in the order history.

Alternative Flow 1 – Partial Return:

POOR valid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

in one order only and wishes to return one of them. They er and instead of returning the whole order, they pick the turn. The system is capable of handling a partial return ly for the selected item. The remaining items in the order

Alternative Flow 2 – Exchange Request:

VERY POOR valid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

"Exchange" becomes the choice because of a defect.I replaces the same merchandise.The return label is gene damaged is sent when the merchandise arrives.
→ *Successful Output?* Yes

Error Flow:

reasonable/poor valid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

The user tries to return an item that falls outside the r does not belong to returnable categories (for example, pe and trying to initiate a return, the system prevents furthe message with the reason. The user gets an option to click or read return terms.
→ *Successful Output?* No

System State on Completion:

The system logs the return request along with key metadata. If accepted, the item's status updates to "Return in Progress" and is linked to a return case. Notifications are sent, and backend processes are queued for shipping, refunds, and inventory. Refunds are issued only after the item is received and verified. Failed returns are logged for analytics or support. No inventory or financial updates occur until return completion.

B-

1.5 Scenario 5 – Tracking Order Status

Should be a stadnalone scenario for the business service?
Scenario should focus on the business, to achieve a business service

Author: Salah Dawabsheh

Initial Assumptions:
The customer is logged into their account and has an customer has at least one existing order stored in the system, and d order ID / reference and an associated status (e.g., "Confirmed", ed", "Out for Delivery", "Delivered", "Cancelled"). The order tracking functionality is operational, and the system can retrieve the latest order status and available tracking updates (including ETA / pickup readiness when applicable).

Initial assumption, in a separate section, should describe a state at which this service can be invoked.e.g. a user must be logged in

Normal Flow:
The customer requests to view their order history. The system displays previous orders. The customer selects a specific order to track. The sy the latest status information for the selected order and displays the curre along with the latest available tracking update. If available, the system al estimated delivery date or pickup readiness information. The customer re status and completes the tracking action.

REASONABLE valid described normal scenario?- needs to be specific, normal or default method of achieving the specific business service, and provide clearer description detailing How the scenario/ process to be achieved

Alternative Flow 1 – Tracking Using O
Instead of selecting from the order history, / order reference (from a previous confirmation or r rder ID format and verifies that the order belongs t eves the latest status information for the order and di tracking updates.
→ Successful Output? Yes

Reasonable `valid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

Alternative Flow 2 – Tracking Another Order:
After viewing the status of one order, the customer system retrieves the latest status information for th the updated order status and tracking update.
→ Successful Output? Yes

invalid alternative, alternative should be an alternative way to achieve the task in alternative options through business processes (e.g., pay by cash, or pay by card), or through system functionalities (select a product item through Search list, or select a product item through browsing)

Error Flow 1 – Order Not Found / Not Authorized:
The customer selects an order or provides an order ID / reference. The system cannot find a matching order for this customer (invalid order ID or the order belongs to another user). The system displays an error message stating "Order not found or you do not have access to this order." No order details are displayed, and the customer may retry or select a different order.
→ Successful Output? No

Error Flow 2 – Tracking Service Unavailable:
The customer selects an order to track. The system fails to retrieve the order status due to a service unavailability or timeout. The system displays an error message stating "Unable to retrieve order information at this time. Please try again later." No order details are displayed, and the customer may retry later.
→ Successful Output? No

reasonable valid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

invalid error, error should be due to a failure in one or more elements in the business process (e.g., card authorization, by bank, failed) or in the system (e.g., login authentication), or by system, e.g. failed retrieval of items from DB failed)

System State on Completion:
If successful, the customer views the current order status and the latest tracking update, and no order data is modified. In case of error, no sensitive order data is revealed, and the customer is prompted to retry or choose a valid order.

A- 2. Task: Actor Analysis

Lead: Osaid Nur
Contributors: Jana Sawalmeh (reviewing), Mumen Anbar (reviewing) , Salah Dawabsheh (discussion), Waleed Rimawi (discussion)

MISSING THEIR ROLES. are they all primary actors? no secondary actors?

Actor Descriptions

- **Customer**
  Represents the primary user of the Coffee Beans Shop System. Can browse coffee beans, search products, place orders online or in-store, make payments, track deliveries, initiate returns or refunds, and contact customer support.
- **Manager/Owner**
  Has administrative privileges to monito history and coffee bean inventory movements, and view manag dit logs to oversee the business.

determine one specific name for this actor. is it an owner or a manager?

- **Sales Assistant**
  Responsible for processing in-store orders and payments for coffee beans, assisting customers during their purchases at physical store locations, and handling returns at the counter.
- **Inventory Manager**
  Keeps coffee bean stock up to date, updates available bean types and origins, and ensures inventory data is correct for orders and tracking.
- **Delivery Staff**
  Plans delivery routes, updates delivery/shipping status, and handles return pickups or drop-offs for coffee products.
- **Customer Support Assistants**
  Assists customers with order issues, account inquiries, returns, refunds, and general support requests, and sends technical issues to the right team when needed.
- **Payment Gateway (e.g., Bank/PayPal)**
  An external service responsible for processing online transactions securely for coffee bean purchases, validating payment information, and confirming payment success or failure.
- **Email Notification System**
  Sends transactional messages such as order confirmations, delivery updates, password recovery emails, and other system-generated notifications to users.

3. Task: Use Case Modelling

Lead: Osaid Nur
Contributors: Jana Sawalmeh (reviewing), Mumen Anbar (reviewing) , Waleed Rimawi (discussion), Salah Dawabsheh (discussion)

3.1 Use Case List

- **UC01 – Browse Products**
  Allows the Customer to explore the available products.
- **UC02 – Search Products**
  Enables the Customer to find products by keyword or description.
- **UC03 – Filter Products**
  Lets the Customer refine product results using filters such as category, price, or brand.
- **UC04 – Place Online Order**
  The Customer selects products and completes an order through the online platform.
- **UC05 – Register Account**
  Allows a new user to create an account with necessary credentials.
- **UC06 – Log In**
  Enables any user to securely access the system with authentication.
- **UC07 – Manage Profile**
  Customers can update their personal details, delivery addresses, and coffee preferences.
- **UC08 – Contact Support**
  Customer can reach out for help through a form or messaging interface.
- **UC09 – Request Return or Refund**
  Customer can initiate a return process or ask for a refund.
- **UC10 – Track Order Status**
  Customers can track their order through multiple statuses: placed, packed, shipped,and delivered.
- **UC11 – Cancel Order**
  Customer can cancel an order before it is shipped or prepared for pickup.
- **UC12 – Approve Role Assignments**
  Managers approve or deny pending role change requests.
- **UC13 – Generate Reports / Logs**
  Manager can generate logs and reports on coffee bean inventory movements, order history, sales analytics, and system usage.

  Sales Assistant

- **UC14 – Place an Order**

The Sales Assistant helps the Customer create an order at a physical store.

- **UC15 – Check Inventory Availability**
  Allows the Sales Assistant to verify if items are in stock.
- **UC16 – Verify Returned Items**
  Inventory Manager confirms the condition and correctness of returned products.
- **UC17 – Reject Return Item**
  Inventory Manager can deny a return request after verification.
- **UC18 – Manage Inventory**
  Inventory Manager updates item stock levels and manages product data.
- **UC19 – Check Inventory Availability**
  Allows the Sales Assistant to verify if items are in stock.
- **UC20 – Assign to Deliver Order**
  Assigns a delivery staff member to deliver the customer's order.
- **UC21 – Assign to Collect Order**
  Assigns a delivery staff member to collect items for return.
- **UC22 – Update Delivery Status**
  Enables the Delivery Staff to update the progress of order delivery.
- **UC23 – Handle Support Request**
  Customer Support reviews and responds to support requests from customers, providing assistance or escalating technical issues.
- **UC24 – Manage Roles**
  IT Support can configure user roles and permissions within the system.
- **UC25 – Make Secure Payment**
  Processes online and in-store transactions securely, validates payment information, and confirms payment success or failure for coffee bean purchases.

B

3.2 task: Use Case Diagram

Lead: Jana Sawalmeh
Contributors: Mumen Anbar (reviewing), Osaid Nur (reviewing) , Waleed Rimawi (discussion), Salah Dawabsheh (discussion)

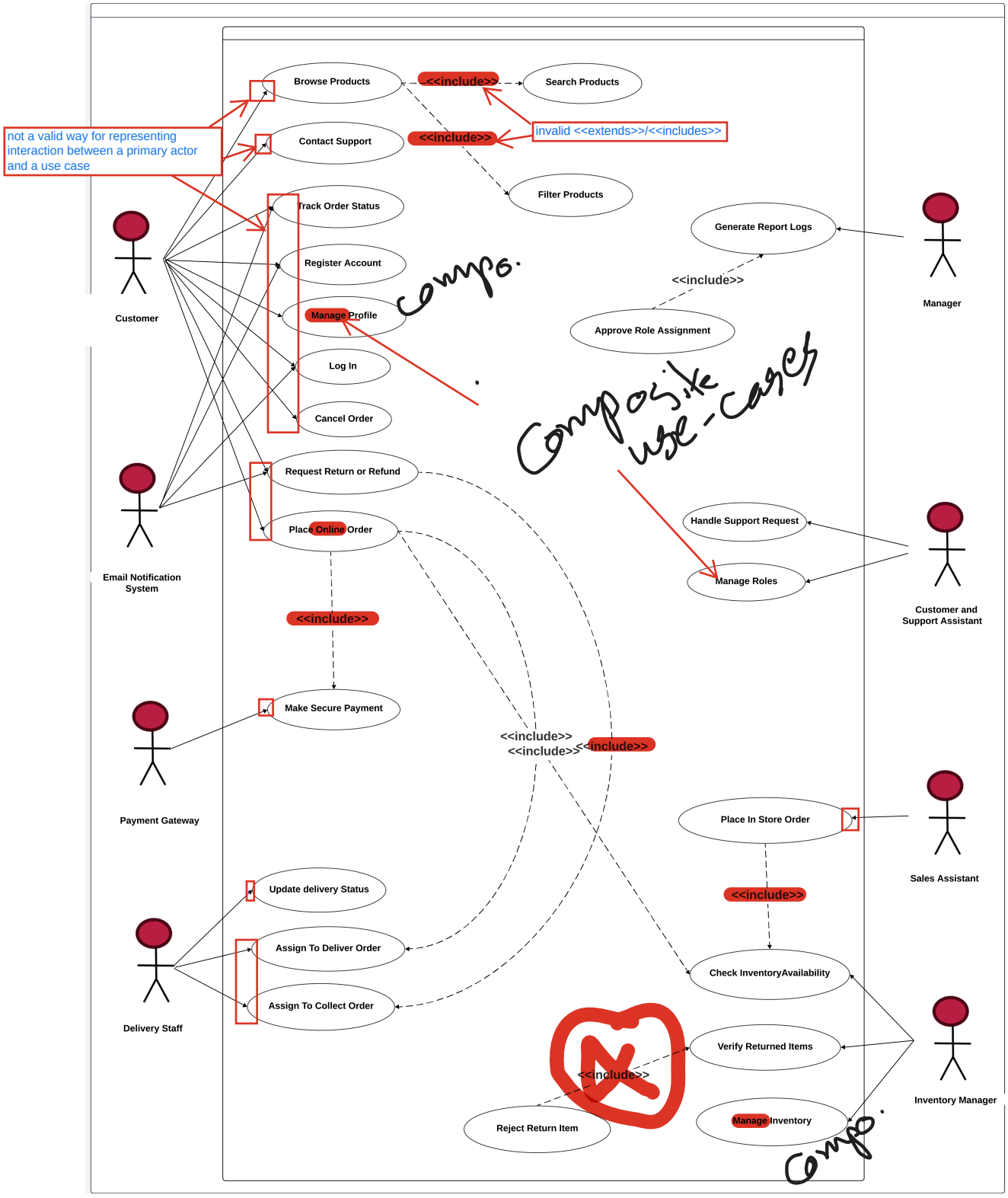

Figure 1: Use Case Diagram for Electronics Components Ordering System

4. Task: Use Case Specifications

4.1 UC01 – Browse Coffee Beans

Author: Jana Sawalmeh

B

the use case says "Browse Products."

valid use case-Title of use case:
Should be a use case as defined in the use case diagram and related to the actor

Use Case Title	Browse Coffee Beans
Description	This use case allows customers to coffee beans using categories or search keywords. Customers can refine results using filters such as price range, brand, origin, or availability. The system provides real-time updates to the product listings and supports viewing detailed information for each coffee bean.
Actors	• **Primary Actor:** Customer • **Secondary Actors:** Inventory Manager
Data	• Coffee bean categories • Brands and origins • Search keywords • Filter values (price range, availability) • Product metadata (name, brand, origin, price, stock status)
Stimulus / Trigger	The customer navigates to the Browse Coffee Beans section or types a keyword in the search bar.
Pre-Conditions Reasonable/poor Valid pre-conditions, should specify valid state of system on entry	1. The customer is authenticated or using guest access. 2. The coffee beans catalog is populated by the inventory manager and is accessible. 3. The filtering and search user interface is fully initialized and responsive.
Workflow poor valid. Needs to be a sequence of FLOW? Add more specific details of the exact follow to match with the scenario, Add alternative and error follows, as per your scenario Steps Should be numbered	1. Customer accesses the Browse Coffee Beans page. 2. System displays all available coffee beans in a default layout. 3. Customer applies filters (e.g., price range, brand, availability). 4. System updates results based on the selected filters. 5. Customer uses sorting or the search bar to further refine results. 6. System displays the refined list and highlights matched keywords. 7. Customer clicks on a coffee bean product to view full details. 8. System logs the product view for analytics purposes.

not mentioned in the entire use case

Alternative Flow 1 – Keyword Search

you already mention that before, no?

1. Customer enters a partial keyword in the search bar.
2. System suggests matching coffee beans using auto-complete.
3. Customer selects a suggestion, triggering a filtered results list.
4. Customer clicks on one of the displayed coffee beans.
5. The product detail page opens; the customer may choose to add the item to the cart.
6. If logged in, the item is added and a confirmation message is shown.

Alternative Flow 2 – Guest Browsing

1. Customer accesses the system without logging in.
2. System allows full coffee bean browsing but disables "Add to Cart" and checkout options.
3. Customer may still use filters, search, and view product details.

WRONG ADDING Normal, Alternative and Error flows as separate sections in the use case spec.
should be added in the main flow using if/else statements

Alternative Flow 3 – Add Without Viewing Details

1. Customer browses the product grid and finds a coffee bean of interest.
2. Without opening the product details page, the customer clicks "Add to Cart."
3. If logged in, the item is added to the cart.
4. A success message is shown, and the cart icon is updated.

Error Flow – EF1: No Matching Results

1. Customer applies filters or search criteria that yield no matching coffee beans.
2. System displays the message: *"No coffee beans found. Try adjusting your filters or clearing some options."*
3. Customer clears filters or modifies the search keyword.
4. If new results appear, the normal flow resumes; otherwise, the customer may cancel or retry.

Post-Conditions / Response

reasonable valid written post-conditions, should specify valid state of system on exit/end of use case

- Matching coffee beans are successfully displayed.
- Product detail pages are accessible and load without error.
- If logged in, coffee beans can be added to the cart.
- All browsing, filtering, and viewing actions are logged for analytics.
- If no results are found, the system provides reset or suggestion options.

Comments	• Logged-in customers may receive recommendations based on browsing history. • The system should ensure fast response times for search and filtering. • Add-to-cart from the list improves efficiency for frequent customers. • Future improvement: filtering by roast level or flavor profile.

4.2 UC04 – Place an Order

B+

valid use case-Title of use case:
Should be a use case as defined in the use case diagram and related to the actor

Author: Osaid Nur

Use Case Title	Place an Online Order
Description	A customer places an online order by reviewing their cart, selecting delivery and payment methods, verifying item availability, and completing the transaction. The system checks both item stock and payment details before confirming the order. Upon success, a confirmation is displayed, the delivery or pickup is scheduled based on the selected option, and a receipt is sent to the customer via email.
Actors	• **Primary Actor:** Customer • **Secondary Actors:** Inventory System, Payment Gateway System. not mentioned in the entire use case
Data	• List of selected items (Coffee Beans) • Cart total price • Delivery information • Payment method and details • Order confirmation status
Stimulus / Trigger	The customer selects " Place Order" from the cart interface.
Pre-Conditions	1. The user is authenticated and has an active session. 2. The user's shopping cart contains at least one valid item with up-to-date pricing. 3. Delivery options (e.g., home delivery, in-store pickup) are currently available based on the user's location. 4. The payment service is operational and can accept transactions. 5. The inventory system is online, and selected items are marked as "in stock."

Reasonable/poor Valid pre-conditions, should specify valid state of system on entry

Workflow

Reasonable/poor valid. Needs to be a sequence of FLOW? Add more specific details of the exact follow to match with the scenario, Add alternative and error follows, as per your scenario
Steps Should be numbered

1. Customer opens their cart and reviews the selected items.
2. System displays item details including name, quantity, price, and total cost.
3. Customer selects home delivery as the delivery method.
4. Customer enters the required delivery address.
5. Customer selects a payment method and provides payment details.
6. System checks the availability of all items in the inventory.
7. If all items are available, the system processes the payment via the payment gateway.
8. System confirms the payment and generates an order record.
9. System schedules the delivery to the provided address.
10. System displays an on-screen confirmation and sends a receipt via email.

Alt Flow 1 – In-Store Pickup

1. Customer opens cart and reviews selected items.
2. System displays item details including name, quantity, price, and total cost.
3. Customer selects in-store pickup as delivery method.
4. Customer selects payment method and provides payment details.
5. System checks availability of all items in inventory.
6. If all items are available, system processes payment via payment gateway.
7. System confirms payment and generates order record.
8. System schedules the order.
9. System displays on-screen confirmation and sends receipt via email.

WRONG ADDING Normal, Alternative and Error flows as separate sections in the use case spec.
should be added in the main flow using if/else statements

Alt Flow 2 – Modifying Cart

1. Customer opens cart and reviews selected items.
2. Before proceeding, customer modifies cart (changes quantity, adds or removes items).
3. System updates cart and recalculates total price.
4. Customer reviews updated item list.
5. System displays item details including name, quantity, price, and total cost.
6. Customer selects home delivery as delivery method.
7. Customer enters required delivery address.
8. Customer selects payment method and provides payment details.
9. System checks availability of all items in inventory.
10. If all items are available, system processes payment via payment gateway.
11. System confirms payment and generates order record.
12. System schedules delivery and displays confirmation with receipt via email.

Error Flows	**EF1 – Payment Failure** 1. Customer opens cart and reviews selected items. 2. System displays item details including name, quantity, price, and total cost. 3. Customer selects home delivery as delivery method. 4. Customer enters required delivery address. 5. Customer selects payment method and provides payment details. 6. System attempts to process payment using provided method. 7. Payment fails due to insufficient funds, expired card, or timeout. 8. System displays: *"Payment unsuccessful. Please verify your card or try a different method."* 9. Customer is given option to retry or cancel order. **EF2 – Item Unavailable During Checkout** 1. Customer opens cart and reviews selected items. 2. System displays item details including name, quantity, price, and total cost. 3. Customer selects home delivery as delivery method. 4. Customer enters required delivery address. 5. Customer selects payment method and provides payment details. 6. System checks inventory and detects one or more items are no longer available. 7. System stops order process and displays: *"Some items are no longer available. Please adjust your cart."* 8. Customer is redirected to cart to modify order.
Post-Conditions / Response reasonable valid written post-conditions, should specify valid state of system on exit/end of use case	• **If successful:** – Order is created with status "Confirmed" – Inventory quantities have been updated accordingly. – A successful payment transaction is logged and associated with the order. – The system is ready to proceed with fulfillment or allow the user to track their order. • **If unsuccessful:** – No order has been created or stored in the system. – Inventory remains unchanged. – The user remains at the checkout or cart state, awaiting a corrective action. – The system is prepared to handle a retry attempt or a modified order.

Comments	• Order cannot be modified after confirmation. • Payment and stock must be validated before final confirmation. • Delivery and payment options depend on system configuration.

4.3 UC14 – Register Account

C+

valid use case-Title of use case: Should be a use case as defined in the use case diagram and related to the actor

Author: Mumen Anbar

Use Case Title	Register Account
Description	A new customer opens an account with the help of the browser. A common form is given for account opening, the entries are checked for the given criteria (for example, the username must be different and the password must satisfy certain requirements), and based on the criteria, an account can be made or the submission can be rejected with proper reasons.
Actors	• **Primary Actor:** Customer • **Secondary Actors:** Email Notification System
Data	• Full name • Email address • Username • Password • Phone number
Stimulus / Trigger	The user chooses "Register".
Pre-Conditions poor Valid pre-conditions, should specify valid state of system on entry	1. The user has no registered accounts with the desired email. 2. The system is able to give responses to the registration request. 3. The Registeration interface is functional. 4. Internet connection is stable.

Workflow very poor valid. Needs to be a sequence of FLOW? Add more specific details of the exact follow to match with the scenario, Add alternative and error follows, as per your scenario Steps Should be numbered WRONG ADDING Normal, Alternative and Error flows as separate sections in the use case spec. should be added in the main flow using if/else statements	1. System shows need to fill fields such as: Full name, email, username, and password. 2. User provides correct data in all fields. 3. Different validations are applied like username and email uniqueness, password strength, and email format. 4. User submits registration request. 5. A new user profile is created and safely stored. 6. A confirmation message is displayed. 7. A Confirmation email will be sent to the user for confirmation. 8. According to the user's choice, either login or redirect him to the page for login. **Alternative Flow 1** 1. Following step 2 in the normal flow, the system displays an Optional section for interest selection. 2. The user may pass on this step. 3. The process now continues from step 3 in the usual flow process. **Error Flows:** **EF1 – Invalid Input:** 1. Enters incorrect information (e.g., short password or) (malformed email 2. System identifies incorrect fields and displays appropriate validation messages, such as "Password must be at least 8 characters" 3. The process of registration is hindered pending resolution of issues.
	EF2 – Email Already Exists: 1. User submits a form with an already existing email associated with existing account. 2. System displays an appropriate message (for example, "An account with this email already exists.") that the email address has already been linked through an existing account. 3. The user will be asked to log in with the existing account or provide a different email address to sign up.

Post-Conditions / Response poor valid written post-conditions, should specify valid state of system on exit/end of use case	• **If successful:** – A new user profile is created – When the user boots – A confirmation email has been sent – The user is logged in or redirected • **If unsuccessful:** – No data is stored – Error messages are displayed – Efforts were noted
Comments	• The system should enforce robust validation to secure an account. • There should be no duplicate accounts for the same email. • System behavior after registration (login/redirect) is configuration-dependent

4.4 UC09 – Request Return or Refund

Author: Waleed Rimawi

B-

invalid use case-Title of use case: Should be a use case as defined in the use case diagram and related to the actor

Use Case Title	Returning a Delivered Item
Description	Use case: Customers can requ nd of goods ordered through the system using this use case. The eligibility of goods to be returned (based on time, product type, etc.), complete or partial returns, pick-ups, deliveries, and return mail are managed by the system, after which a refund or exchange can be made.
Actors	**Primary Actor:** Customer **Secondary Actors:** Email Notification System, Delivery Staff, Inventory Manager
Data	• Order History • Reason for return (e.g. damaged, not as described) • Optional comment • Pickup/drop-off selection • Refund Timeline • Return label (Download/Email)
Stimulus / Trigger	The customer selects “Return Item” for a previously purchased item from their order history.
Pre-Conditions poor Valid/invalid pre-conditions, should specify valid state of system on entry	1. A customer is logged into their account. 2. It is acquired through the system. 3. The item is still within the return period. 4. The merchandise can be returned. 5. The return interface and email service are available.
Workflow very very very poor valid. Needs to be a sequence of FLOW? Add more specific details of the exact follow to match with the scenario, Add alternative and error follows, as per your scenario Steps Should be numbered	1. Customer navigates to ”Order History.” 2. Expands an order and clicks “Return Item.” 3. System displays returned form along with reasons and comments. 4. The customer submits the form. 5. System eligibility verification and return options display. 6. Customer picks the mode (pickup/drop-off). 7. System generates and sends return label (email/download). 8. Order status update to "Return in Progress." 9. The notifications will be sent to the "Delivery Staff" as well as "Inventory Manager".

the customer does not fill the form???

WRONG ADDING Normal, Alternative and Error flows as separate sections in the use case spec.
should be added in the main flow using if/else statements

Alternative Flow 1 – Partial Return	1. Customer picks only one item that was ordered with multiple items. 2. System processes partial return, adjusts refund, and generates a return label.
Alternative Flow 2 – Exchange Instead of Refund	1. Customer selects "Exchange" due to a defect. 2. System initiates replacement process. 3. Return label is issued. 4. Replacement item is sent after arrival of the return.
Error Flow – EF1: Invalid Return Attempt	1. Customer picks an item outside the return window or an item marked non-returnable. 2. System doesn't allow to return, shows response: This item cannot be returned. Please see our return policy or contact support.
Post-Conditions poor valid written post-conditions, should specify valid state of system on exit/end of use case	**If successful:** • The return request is recorded • Status changed to "Return in Progress" • Case allocated to Delivery Staff & Inventory Manager • Notification sent • Refund or replacement after verification **If unsuccessful:** • Return request not created • Failures reported • User is notified
Comments	• Partial return options can benefit customers • Return status updates build trust between business and consumer. • Future: ability to upload pictures of damaged products

4.5 UC10 – Track Order Status

Author: Salah Dawabeheh

B-

valid use case-Title of use case: Should be a use case as defined in the use case diagram and related to the actor

Use Case Title	Track Order Status
Description	A customer tracks the statu ced order. The system retrieves and d order status (e.g., "Confirmed", "Processing", "Shipped", "Out for Delivery", "Delivered", "Cancelled") along with the latest available tracking update. The customer can access tracking through their order history or by using an order ID / reference.
Actors	• **Primary Actor:** Customer • **Secondary Actors:** Order Management System, Delivery / Pickup Service (if applicable) invalid actors.
Data	• Customer account session • Order list (order history) • Order ID / order reference • Current order status • Delivery infof • Tracking update / last status update time • Estimated delivery date / pickup readiness
Stimulus / Trigger	The customer selects "Track Order Status" / selects an order from their order history, or enters an order ID to view its status.
Pre-Conditions poor Valid/invalid pre-conditions, should specify valid state of system on entry	1. Customer is authenticated and has an active session. 2. Customer has at least one existing order stored in the system. 3. The order tracking functionality is operational and can retrieve the latest order status. 4. Order records are available in the database.

Workflow

WRONG ADDING Normal, Alternative and Error flows as separate sections in the use case spec.
should be added in the main flow using if/else statements

poor valid.
Needs to be a sequence of FLOW?
Add more specific details of the exact follow to match with the scenario, Add alternative and error follows, as per your scenario
Steps Should be numbered

1. Customer requests to view their order history.
2. System displays the customer's previous orders.
3. Customer selects a specific order to track.
4. System retrieves the latest status information for the selected order from the Order Management System.
5. System displays the current order status and the latest available tracking update (and ETA / pickup readiness if available).

Alternative Flow 1 – Tracking Using Order ID / Reference

1. Customer provides an order ID / order reference (from a previous confirmation or receipt).
2. System validates the order ID format.
3. System searches for the order and verifies it belongs to the customer.
4. System retrieves the latest status for the order.
5. System displays the current order status and tracking updates.

Alternative Flow 2 – Tracking Another Order

1. After viewing one order status, the customer selects another order to track.
2. System retrieves the latest status information for the newly selected order.
3. System displays the updated order status and tracking update.

Error Flows:

EF1 – Order Not Found / Not Authorized:

1. Customer selects an order or provides an order ID.
2. System cannot find a matching order for this customer (invalid ID or belongs to another user).
3. System displays: "Order not found or you do not have access to this order."

EF2 – Tracking Service Unavailable:

1. Customer selects an order to track.
2. System fails to retrieve order status due to timeout / database connection issue / service unavailability.
3. System displays: "Unable to retrieve order information at this time. Please try again later."

Post-Conditions / Response reasonable valid written post-conditions, should specify valid state of system on exit/end of use case	• If successful: – Customer views the current order status and latest tracking update. – No order data is modified. • If unsuccessful: – An appropriate error message is displayed. – No sensitive order data is revealed.
Comments	• Only the owner of the order can track its status. • Order status is read-only in this use case. • Tracking details (e.g., ETA / pickup readiness) depend on the availability of fulfillment updates.

C+

Reasonable/poor use swim-lane - activity flow must show interactions between different actors

5. Task: Activity Modelling

Lead: Jana Sawalmeh
Contributors: Salah Dawabsheh (modelling), Osaid Nur (validation), Mumen Anbar (design), Waleed Rimawi (reviewing)

Activity Diagram (Link): Open the Main Activity Diagram

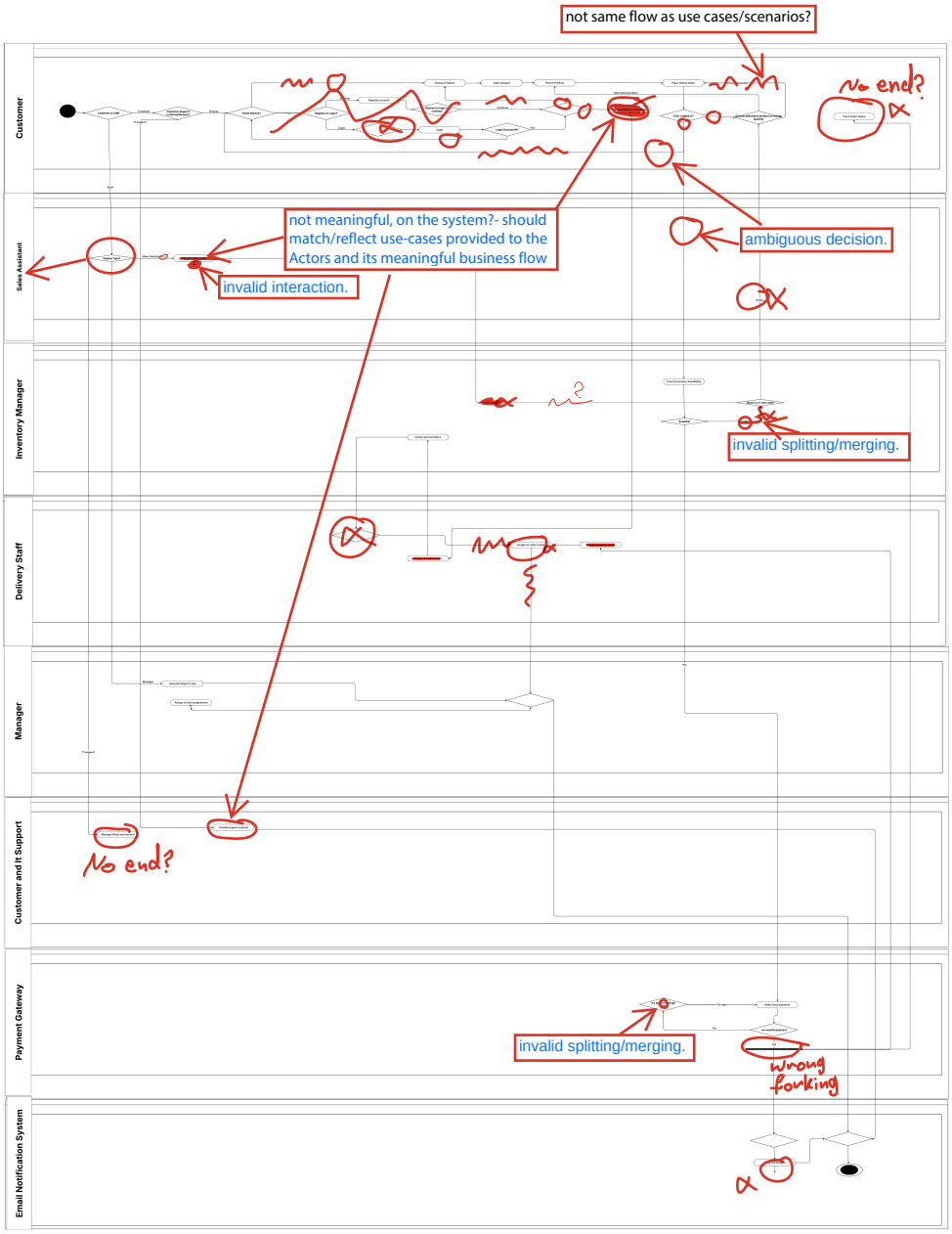

Figure 2: Group Activity Diagram for Use Case Integration

Reasonable/poor use swim-lane - activity flow must show interactions between different actors

6. Task: Instance Activity diagrams

C+

6.1 UC01 – Browse Coffee Beans (Jana Sawalmeh)

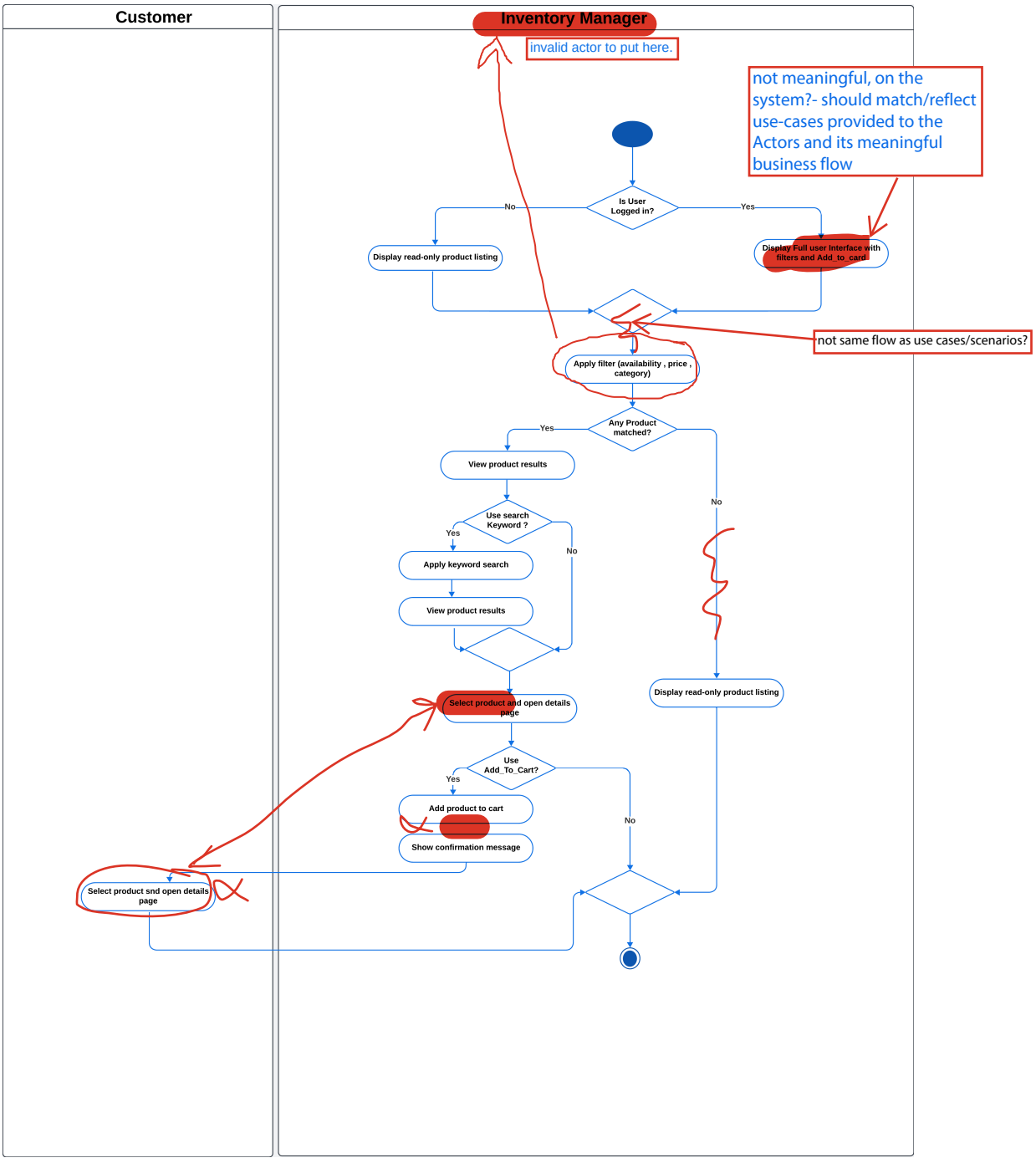

Figure 3: Activity Diagram for UC01 – Browse Coffee Beans

Reasonable use swim-lane - activity flow must show interactions between different actors

B

6.2 UC04 – Place an Order (Osaid Nur)

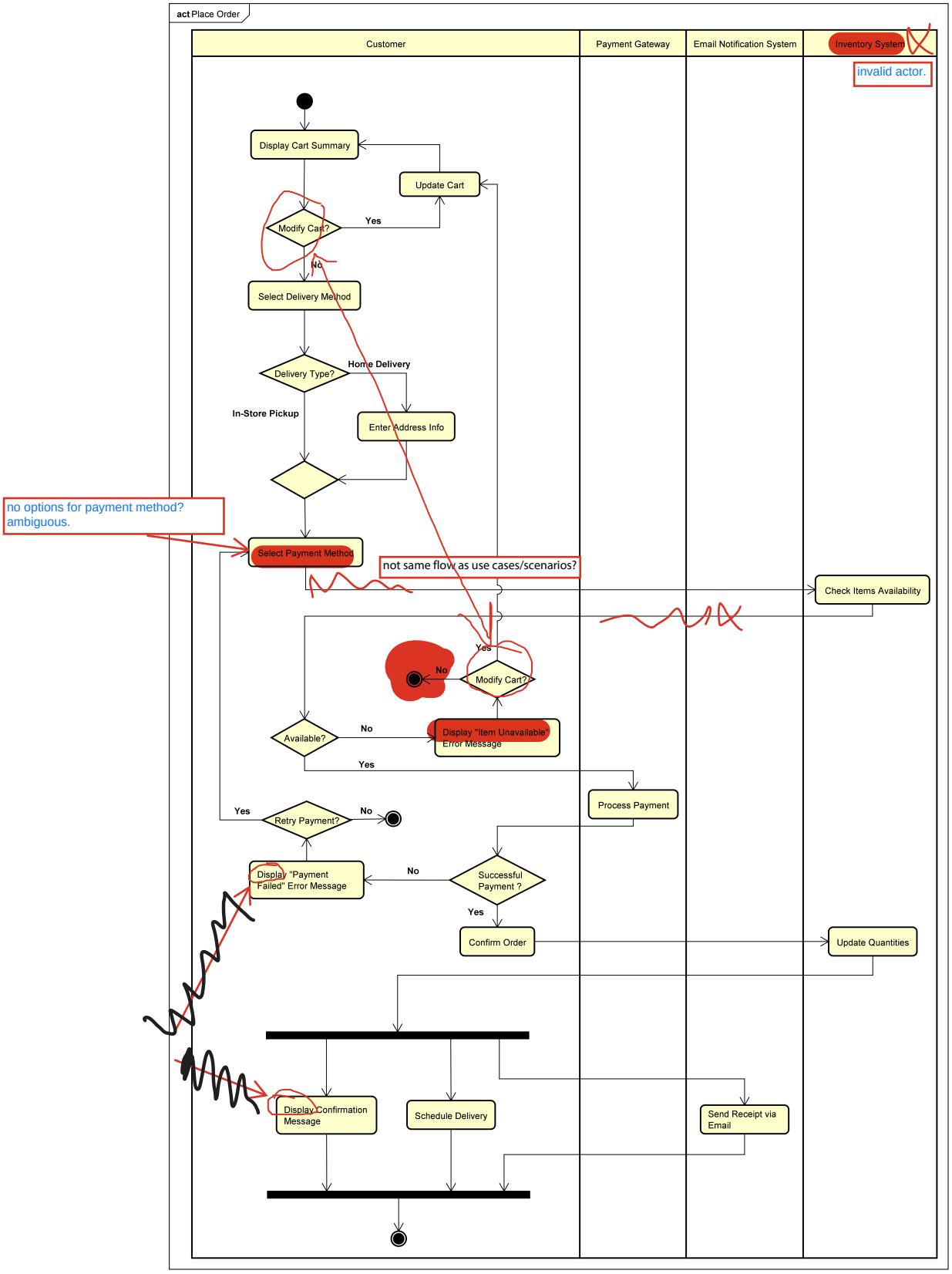

Figure 4: Activity Diagram for UC06 – Place an Order

Reasonable/poor use swim-lane - activity flow must show interactions between different actors

B-

6.3 UC05 – Register Account (Mumen Anbar)

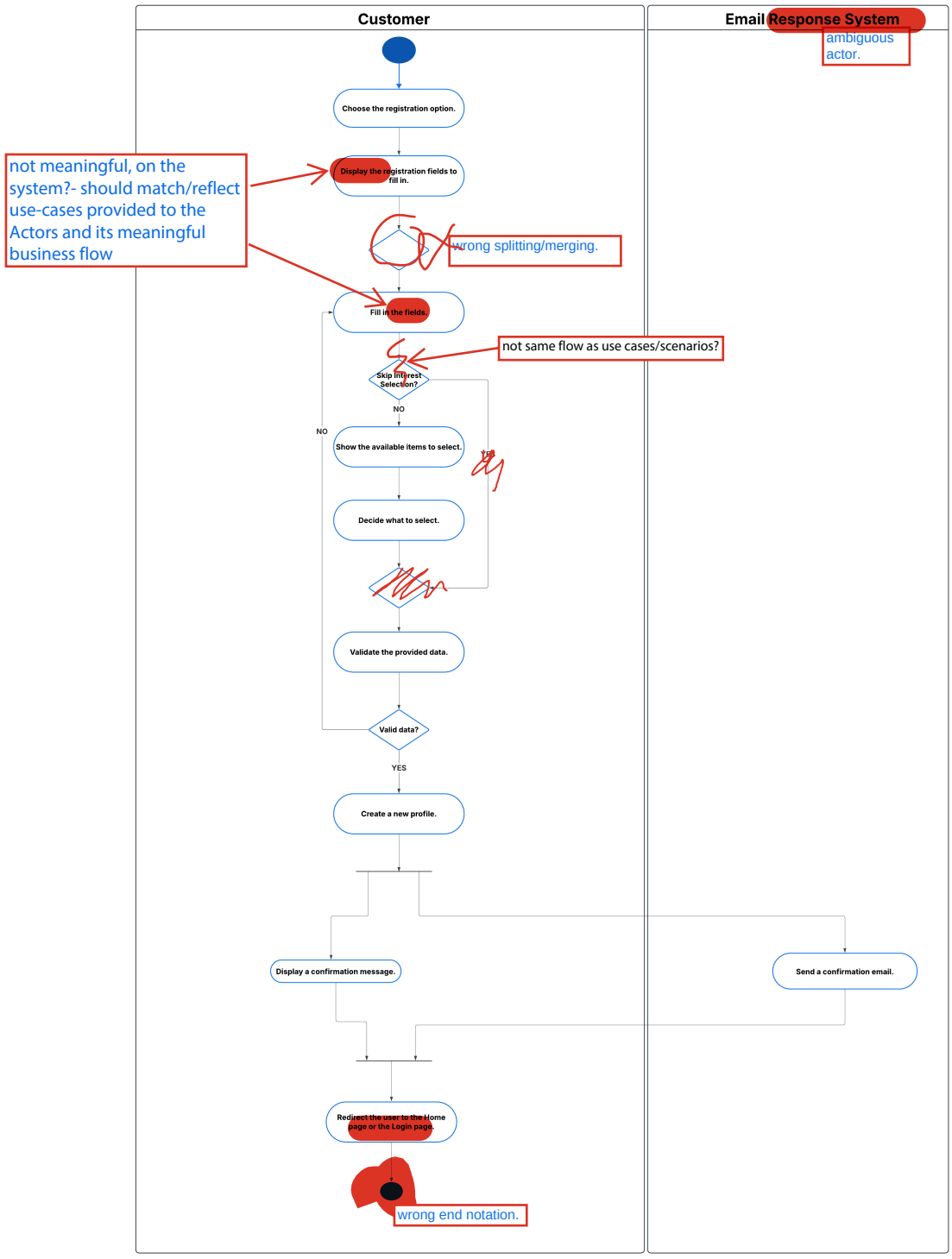

Figure 5: Activity Diagram for UC14 – Register Account

Reasonable/poor use swim-lane - activity flow must show interactions between different actors

B-

6.4 UC09 – Request Return or Refund (Waleed Rimawi)

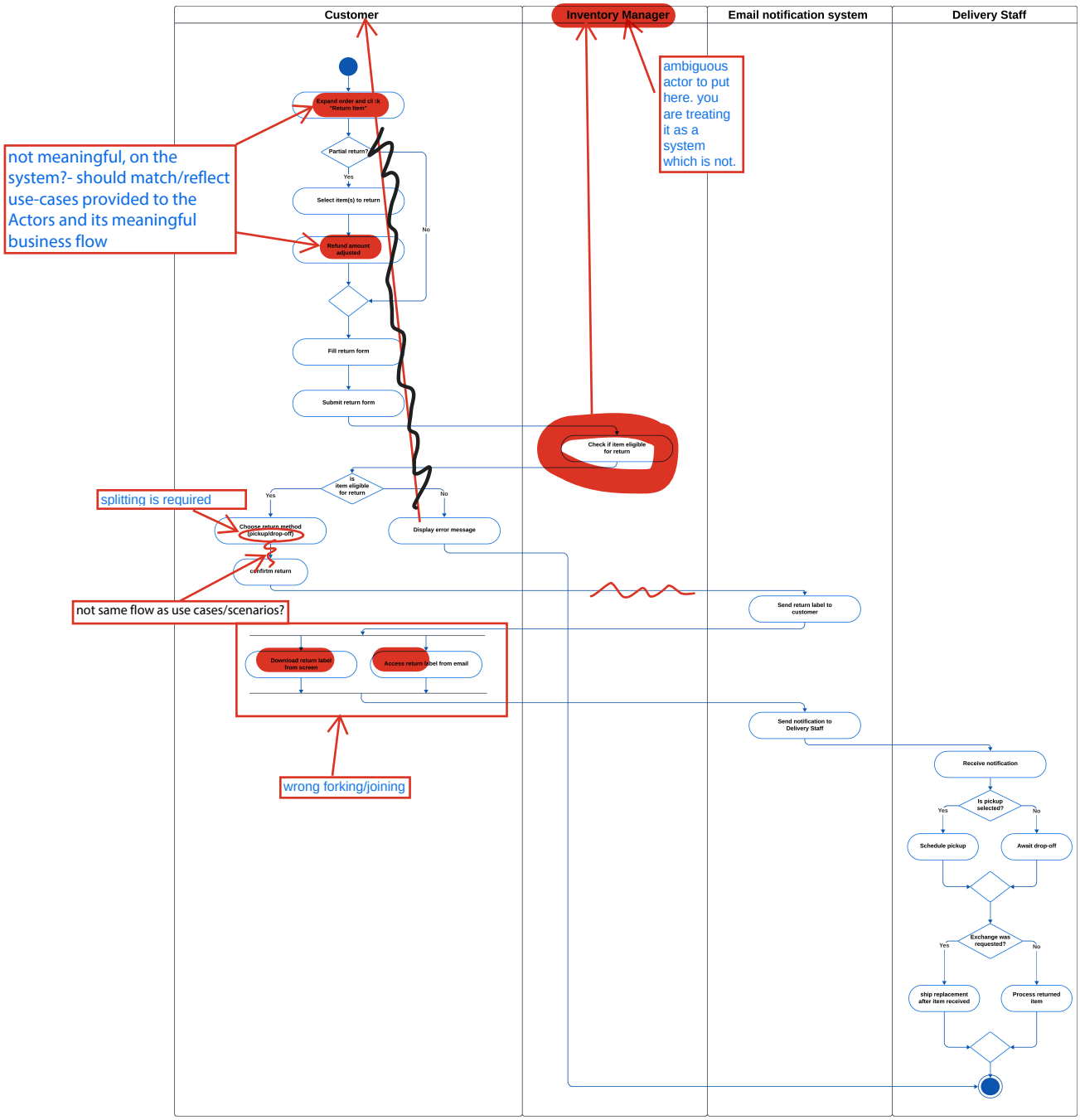

Figure 6: Activity Diagram for UC23 – Request Return or Refund

Reasonable/poor use swim-lane - activity flow must show interactions between different actors

C+

6.5 UC10 – Track Order Status (Salah Dawabsheh)

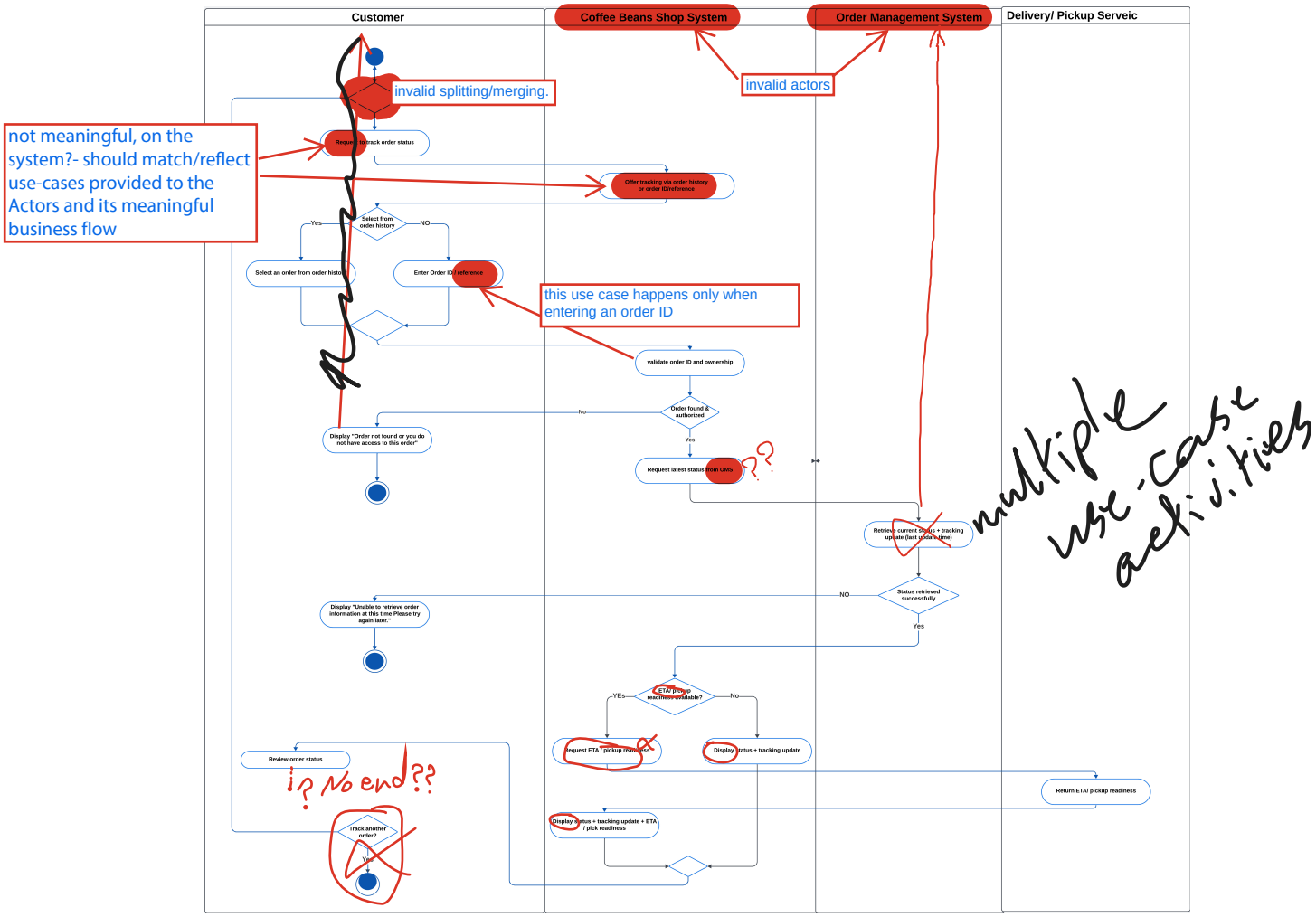

Figure 7: Activity Diagram for UC24 – Track Order Status