**Assignment 1: Breakdown of Online Marketplace Requirement**

**Client Requirement**

"We want to create an online marketplace where users can buy and sell products, similar to eBay or Amazon, but we want it to focus on local products and sustainable shopping. Users should be able to search for items, make purchases, leave reviews, and manage their accounts. We also want to have features that promote eco-friendly products."

**Epics**

1. **User Registration and Authentication**
   * This epic will cover the processes required for users to sign up, log in, and manage their accounts. It will also include features like password management and user profile updates.
2. **Product Search and Filtering**
   * This epic will focus on allowing users to search for products, filter them by categories (e.g., eco-friendly, local products), and sort results. It will also include features for advanced search and recommendation based on preferences.
3. **Product Listing and Purchasing**
   * This epic will cover the process of listing products for sale, managing product details, and making purchases. It includes handling payment methods, shipping options, and cart management.
4. **User Reviews and Ratings**
   * This epic will cover the features that allow users to leave reviews and ratings for products. It will include moderation features, review sorting, and filtering by relevance.
5. **Eco-friendly Product Promotion**
   * This epic focuses on promoting eco-friendly and sustainable products, using tags, badges, or special listings. It will also include recommendations or discounts for sustainable shopping.

**User Stories for Epic: Product Listing and Purchasing**

1. **User Story 1: Product Listing**
   * *As a* **seller**, *I want to* **list products for sale with relevant details (price, description, category, images)** *so that* **potential buyers can easily find and purchase them**.
2. **User Story 2: Add to Cart**
   * *As a* **buyer**, *I want to* **add items to my shopping cart** *so that* **I can review them and proceed to checkout later**.
3. **User Story 3: Checkout Process**
   * *As a* **buyer**, *I want to* **complete the checkout process with a preferred payment method and shipping address** *so that* **I can finalize my purchase smoothly**.
4. **User Story 4: Order Confirmation**
   * *As a* **buyer**, *I want to* **receive an order confirmation with details of the products, shipping address, and expected delivery** *so that* **I have a record of my purchase**.
5. **User Story 5: Order History**
   * *As a* **buyer**, *I want to* **view my past orders** *so that* **I can review previous purchases and reorder items easily if needed**.

**Acceptance Criteria for Two User Stories**

**User Story 2: Add to Cart**

**Acceptance Criteria:**

* **Given** I am logged in as a buyer, **when** I click the "Add to Cart" button on a product page, **then** the product should be added to my cart.
* **Given** I have added multiple products to my cart, **when** I view the cart, **then** I should see all the items I have added, along with their prices and quantities.
* **Given** I want to modify the quantity of an item, **when** I adjust the quantity in my cart, **then** the total price should update accordingly.

**User Story 3: Checkout Process**

**Acceptance Criteria:**

* **Given** I have items in my cart, **when** I click the "Proceed to Checkout" button, **then** I should be taken to the checkout page to review my order details, including total price and shipping options.
* **Given** I am on the checkout page, **when** I provide my shipping address and payment method, **then** the system should validate the inputs and allow me to place the order.
* **Given** I place an order successfully, **then** I should see an order confirmation page with my order details, a unique order number, and estimated delivery date.

**Ambiguities and Assumptions**

**Ambiguities**

1. **Sustainable Products Definition**: It is unclear what qualifies as an "eco-friendly" product and how it will be flagged or verified in the system. Does this require external certification, or will users self-report?
2. **User Review Moderation**: It is not specified if reviews will need to go through a moderation process before being posted to prevent inappropriate content.
3. **Shipping Options**: Details about shipping providers or whether local shipping or eco-friendly shipping options need to be integrated are not mentioned.

**Assumptions**

1. **Product Categories**: We assume that the products will be categorized into predefined types (e.g., electronics, clothing, etc.) and that a new category will be created for local or eco-friendly products.
2. **Payment Methods**: We assume standard payment options such as credit cards, PayPal, and possibly eco-friendly payment options (e.g., carbon offset) will be available.
3. **Discounts on Eco-friendly Products**: We assume that promoting eco-friendly products may include offering discounts, but details on how discounts will be applied or managed are missing.

**Conclusion**

This breakdown translates the high-level client requirements into actionable epics and user stories, focusing on core functionalities. Clear assumptions have been made to fill in gaps, and ambiguities have been highlighted for clarification. The user stories and acceptance criteria ensure that the marketplace’s fundamental features are well-defined, with attention given to both functionality and user experience.