End-to-End System Workflow

This section explains **how the platform operates step by step**, starting from **Admin setup**, followed by **Seller operations**, and finally **Customer interactions**.

This flow ensures **full control, traceability, and scalability**.

1. Admin-Initiated Platform Setup (System Foundation)

The **Admin is the first and most important actor** in the system.

No selling or buying can happen until the Admin configures the platform.

1.1 Platform Initialization by Admin

Admin performs the following foundational actions:

- Creates admin account(s)
- Defines platform-level rules:
  - Commission percentages
  - Return & refund policies
  - Delivery rules
- Configures customer subscription plans:
  - Basic
  - Premium
  - Elite
- Defines reward point logic (for Elite – future phases)

👉 **Why this matters to the client:**

Admin always stays in control of money, policies, and growth.

2. Category & Product Framework Setup (Admin-Controlled)

Before sellers can add products, the **Admin defines the product structure**.

2.1 Category Management

Admin:

- Creates categories (e.g., Electronics, Grocery)
- Creates subcategories (e.g., Mobiles, Laptops)
- Controls category visibility and rules

No seller can create categories independently.

👉 **Data Modeling Insight:**

Category → Subcategory → Product (clear hierarchy)

3. Seller Onboarding & Enablement Flow

3.1 Seller Registration

1. Seller submits registration request
2. Seller provides:
   - Business details
   - Contact details
   - Location(s) of operation
3. Seller account remains **inactive** by default

3.2 Admin Approval Workflow

Admin:

- Reviews seller details
- Approves or rejects seller
- Assigns seller permissions

Only after approval:

- Seller can log in
- Seller can add products
- Seller becomes visible to customers

👉 **Client clarity:**

"No unauthorized seller can sell on the platform."

4. Seller Product & Stock Setup Flow

4.1 Product Creation by Seller

Once approved, seller:

- Selects category/subcategory (admin-defined)
- Adds product details:
   - Name
   - Description
   - Images
   - Price
   - Discount (if any)

4.2 Location-Based Stock Configuration

Seller configures stock **per location**:

- Adds one or more locations (city / warehouse)
- Sets available stock for each location
- Enables or disables locations as needed

👉 **Important:**

Stock is **never global** — it is always **location-specific**.

5. Admin Oversight Before Products Go Live

Admin can:

- Review newly added products
- Hide or block products if needed
- Monitor stock levels across sellers and locations

👉 **Trust factor for client:**

Admin has full visibility and intervention power.

6. Customer Journey (After Admin & Seller Setup)

Only after the above steps does the **customer experience begin**.

6.1 Customer Registration & Access

- Customer registers and logs in
- System assigns default:
  - Basic subscription
  - Default wishlist

6.2 Product Discovery Flow

1. Customer searches or browses categories
2. Customer enters delivery PIN code
3. System checks:
   - Nearest available stock location
   - Seller availability
4. Only **available products** are shown

6.3 Wishlist & Cart Flow

- Customer adds products to:
  - Cart (immediate intent)
  - One of multiple wishlists (future intent)
- Wishlist items can later be moved to cart

7. Order Placement & Payment Flow

1. Customer proceeds to checkout
2. Selects delivery address
3. System recalculates:
   - Product price
   - Delivery charge (based on subscription)
   - Discounts
4. Customer completes online payment
5. Order is created in system with:
   - Assigned seller
   - Assigned stock location
   - Payment confirmation

👉 **Data Modeling Gold:**

Order → Seller → Location → Customer

8. Seller Order Fulfillment Flow

1. Seller receives order notification
2. Seller:
   - Packs product
   - Ships product
3. Seller updates order status:
   - Packed
   - Shipped
   - Delivered
4. Stock is already deducted at order creation

9. Customer Order Tracking Flow

- Customer tracks order in real time
- System displays:
    - Order status
    - Seller details
    - Expected delivery date

10. Post-Delivery Activities

10.1 Reviews & Ratings

After delivery:

- Customer can submit:
    - Product review and Seller review
- Only verified purchases can review

10.2 Customer Support Flow

1. Customer raises support ticket
2. Ticket categorized:
    - Order
    - Payment
    - Delivery
    - Product
    - Seller
3. Ticket assigned to:
    - Seller (if applicable) or
    - Platform support team
4. Admin oversees escalation and resolution

11. Subscription & Loyalty Flow (Where Applicable)

- Customer may upgrade to:
    - Premium
    - Elite
- System applies:
    - Free delivery
    - Extra discounts
    - Reward points
- Benefits are applied automatically during checkout

12. Admin Monitoring & Governance (Continuous)

At all times, Admin can:

- View all orders
- View seller performance
- Monitor ratings and complaints
- Control subscriptions and commissions
- Suspend sellers or products if required