Supply Chain & Inventory Management System

Project Details

Project Name: Supply Chain & Inventory Management System
Objective: Improve inventory visibility and automate Purchase Order (PO) generation to reduce stockouts and delays in order fulfillment, with real-time SKU insights for better decision-making through Unicommerce integration.
Time Period: 20 Nov 24 - 18 Dec 2024
Team Size:

- Product Manager
- UI Designer
- Tech Team
- Customer Support team
- Ops Team
- Finance Team
- Warehouse Team
- QA Testers (PM)

Roles and Responsibilities

- Managed the product roadmap and maintained a feature backlog.
- Collaborated with stakeholders from operations, finance, and development teams to define requirements.
- Conducted market and user research to identify key inefficiencies in inventory and PO processes.
- Prioritized features and enhancements based on business objectives and operational feedback.
- Monitored system performance metrics to track improvements and ensure SLA compliance.

Key Challenges & Solutions

- **Challenge**: Limited visibility of inventory across sales channels leading to stockouts.
  Solution: Developed a centralized dashboard integrating with Unicommerce for real-time SKU insights.
- **Challenge:** Manual and error-prone PO generation processes.
  Solution: Automated PO generation with pre-filled fields, PDF creation, and dynamic approval workflows.
- **Challenge:** Delayed PO approvals causing fulfillment bottlenecks.
  Solution: Implemented SLA-based alert systems for timely PO approval and processing.
- **Challenge**: Lack of communication with artisans for PO acknowledgment and delivery timelines.
  Solution: Integrated WhatsApp and email notifications for real-time communication with artisans.

Features Delivered

- Dashboard for SKU Visibility: Real-time inventory tracking, sales analysis, and forecasting.
- PO Generation Dashboard: Automated PO creation with product details, cost calculations, and approval workflows.
- Alert & Notification System: SLA-based alerts for PO approvals, payment processing, and goods receipt tracking.
- Role-Based Access Control (RBAC): Controlled access for admin, user, and finance roles.
- PO Lifecycle Management: Automated tracking of PO creation, approval, artisan communication, and payment processing.

Metrics & Results (Impact Analysis)

- Reduction in Stockouts: Achieved a <5% stockout rate per month.
- Faster PO Approval Time: Reduced average approval time to <24 hours.
- Improved Inventory Forecast Accuracy: Attained >90% accuracy in demand forecasting.
- SLA Breach Reduction: Decreased breaches by 80%, enhancing operational efficiency.

Tools & Technologies Used

- Product Management: Clickup,
- Data Analysis: Google Sheets

- Backend Integration: Unicommerce APIs, Database, Shopify APIs,WhatsApp Business API, Email API
- Design Collaboration: Figma
- Automation & Communication: PDF generation tools, role-based alert system
- Ops Portal

Stakeholder Engagement

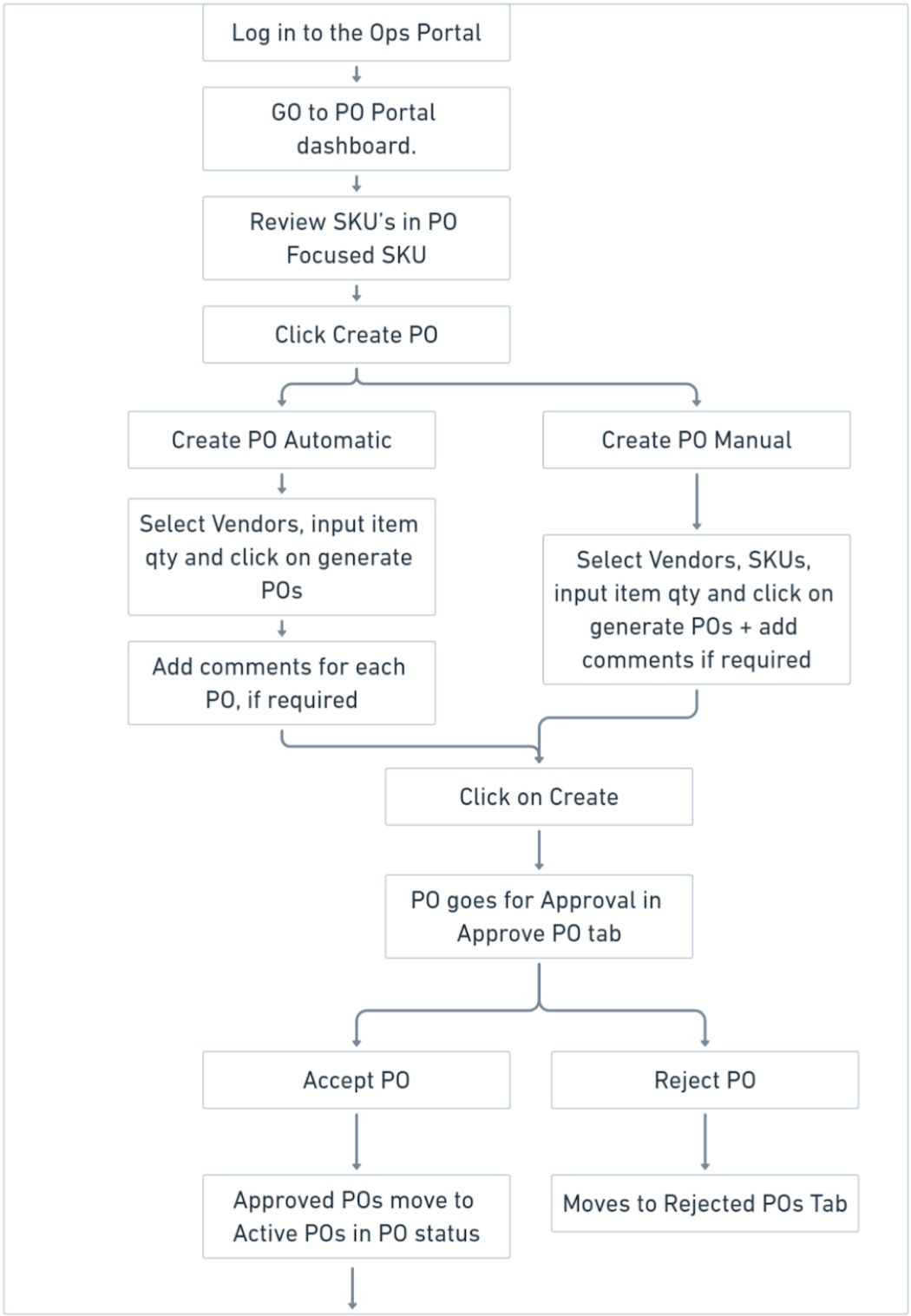
- Conducted regular sync-ups with cross-functional teams to gather feedback and align on development priorities.
- Collaborated closely with operations and finance teams to design and validate the PO lifecycle process.
- Secured management buy-in for automation initiatives through data-backed presentations.

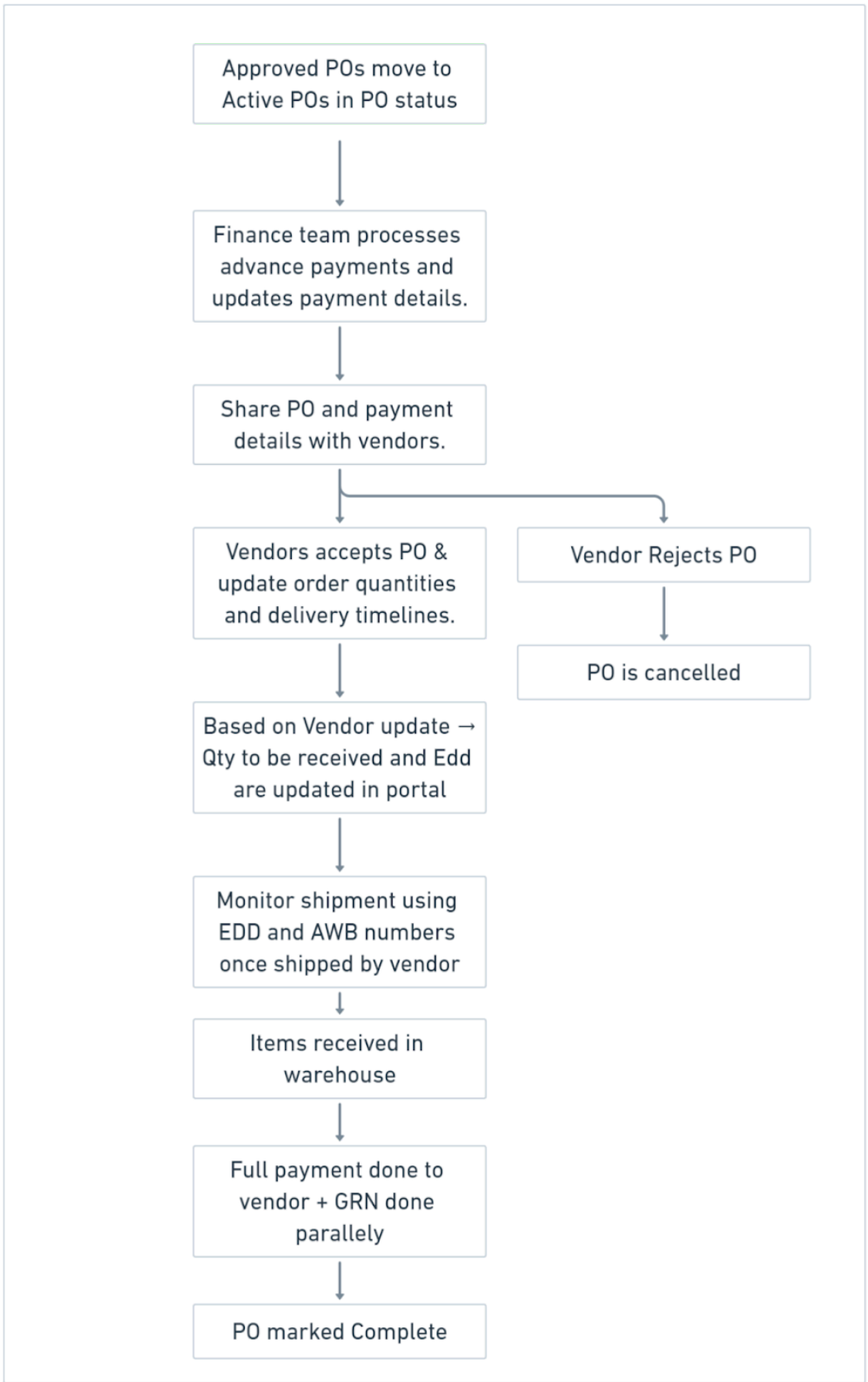
Learnings & Key Takeaways

- Automation Reduces Errors: Automating PO processes significantly reduced manual errors and improved efficiency.
- Real-Time Visibility Drives Decisions: Providing real-time SKU data enabled proactive decision-making.
- Effective Communication is Key: Integration of communication channels improved collaboration with artisans and internal stakeholders.
- Stakeholder Collaboration Enhances Adoption: Early engagement and feedback loops ensured smooth adoption of new features.

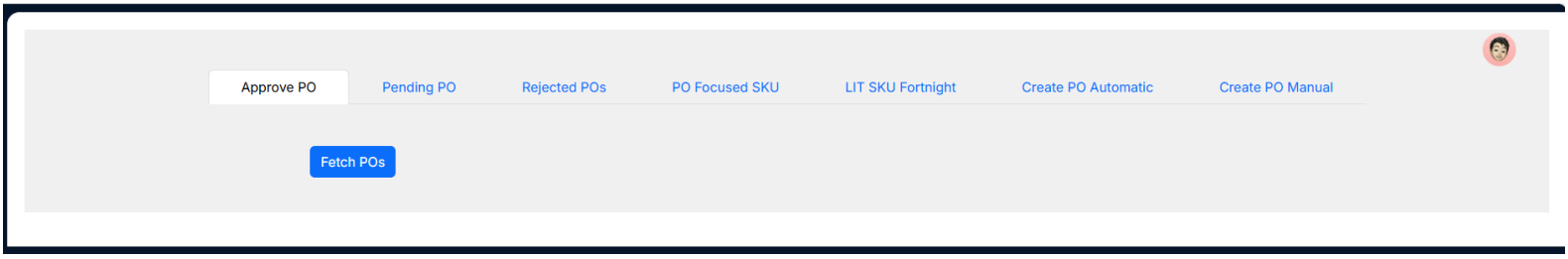
Supporting Visuals

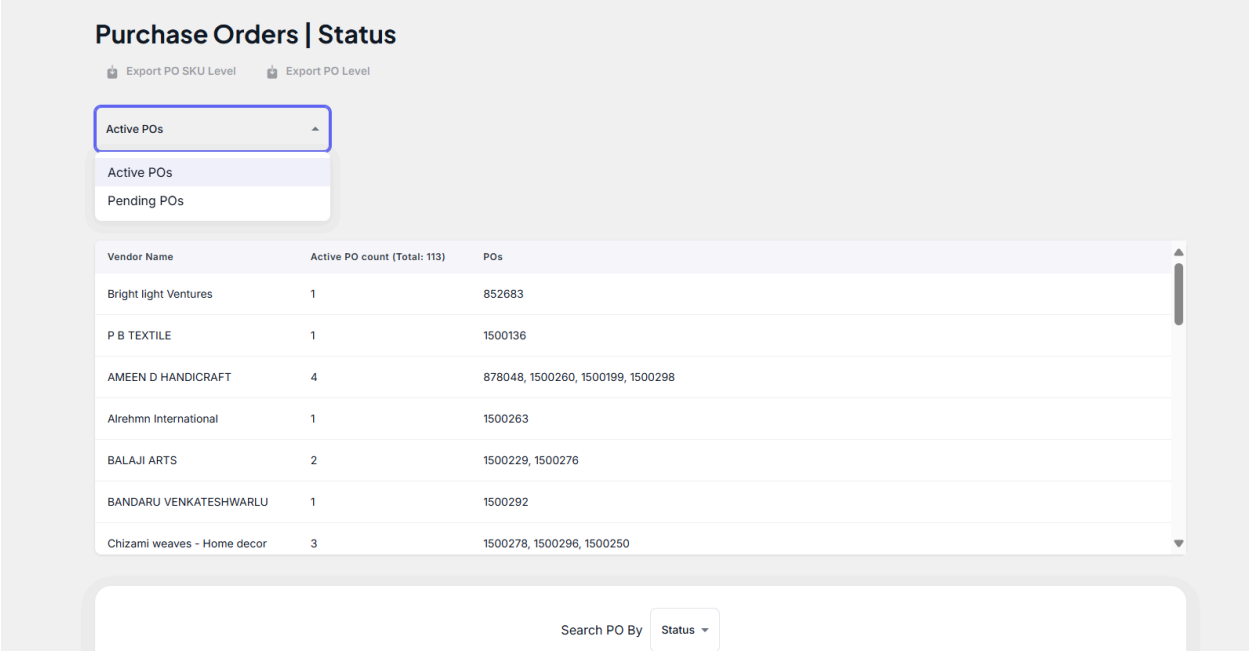
Workflow

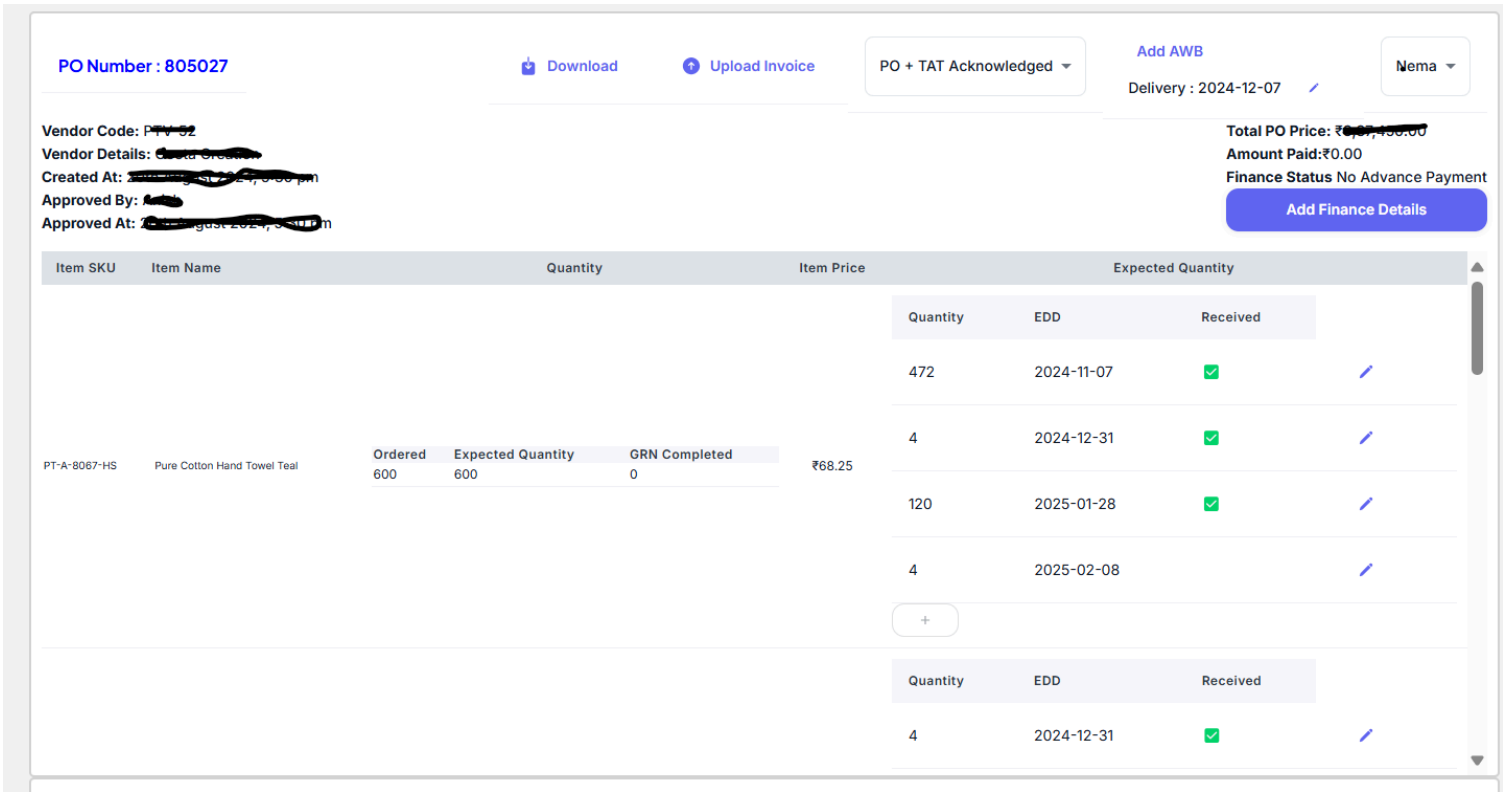

Log in to the Ops Portal
GO to PO Portal dashboard.
Review SKU's in PO Focused SKU
Click Create PO
Create PO Automatic
Create PO Manual
Select Vendors, input item qty and click on generate POs
Add comments for each PO, if required
Select Vendors, SKUs, input item qty and click on generate POs + add comments if required
Click on Create
PO goes for Approval in Approve PO tab
Accept PO
Reject PO
Approved POs move to Active POs in PO status
Moves to Rejected POs Tab


Approved POs move to Active POs in PO status
Finance team processes advance payments and updates payment details.
Share PO and payment details with vendors.
Vendors accepts PO & update order quantities and delivery timelines.
Vendor Rejects PO
PO is cancelled
Based on Vendor update → Qty to be received and Edd are updated in portal
Monitor shipment using EDD and AWB numbers once shipped by vendor
Items received in warehouse
Full payment done to vendor + GRN done parallely
PO marked Complete

Dashboard


Approve PO
Pending PO
Rejected POs
PO Focused SKU
LIT SKU Fortnight
Create PO Automatic
Create PO Manual
Fetch POs


Purchase Orders | Status
Export PO SKU Level
Export PO Level
Active POs
Active POs
Pending POs
Vendor Name
Active PO count (Total: 113)
POs
Bright light Ventures 1 852683
P B TEXTILE 1 1500136
AMEEN D HANDICRAFT 4 878048, 1500260, 1500199, 1500298
Alrehmn International 1 1500263
BALAJI ARTS 2 1500229, 1500276
BANDARU VENKATESHWARLU 1 1500292
Chizami weaves - Home decor 3 1500278, 1500296, 1500250
Search PO By
Status


PO Number : 805027
Download
Upload Invoice
PO + TAT Acknowledged
Add AWB
Delivery : 2024-12-07
Nema
Vendor Code: PTV-32
Vendor Details: [redacted]
Created At: [redacted]
Approved By: [redacted]
Approved At: [redacted]
Total PO Price: ₹[redacted]
Amount Paid:₹0.00
Finance Status No Advance Payment
Add Finance Details
Item SKU
Item Name
Quantity
Item Price
Expected Quantity
Ordered
Expected Quantity
GRN Completed
PT-A-8067-HS
Pure Cotton Hand Towel Teal
600
600
0
₹68.25
Quantity
EDD
Received
472
2024-11-07
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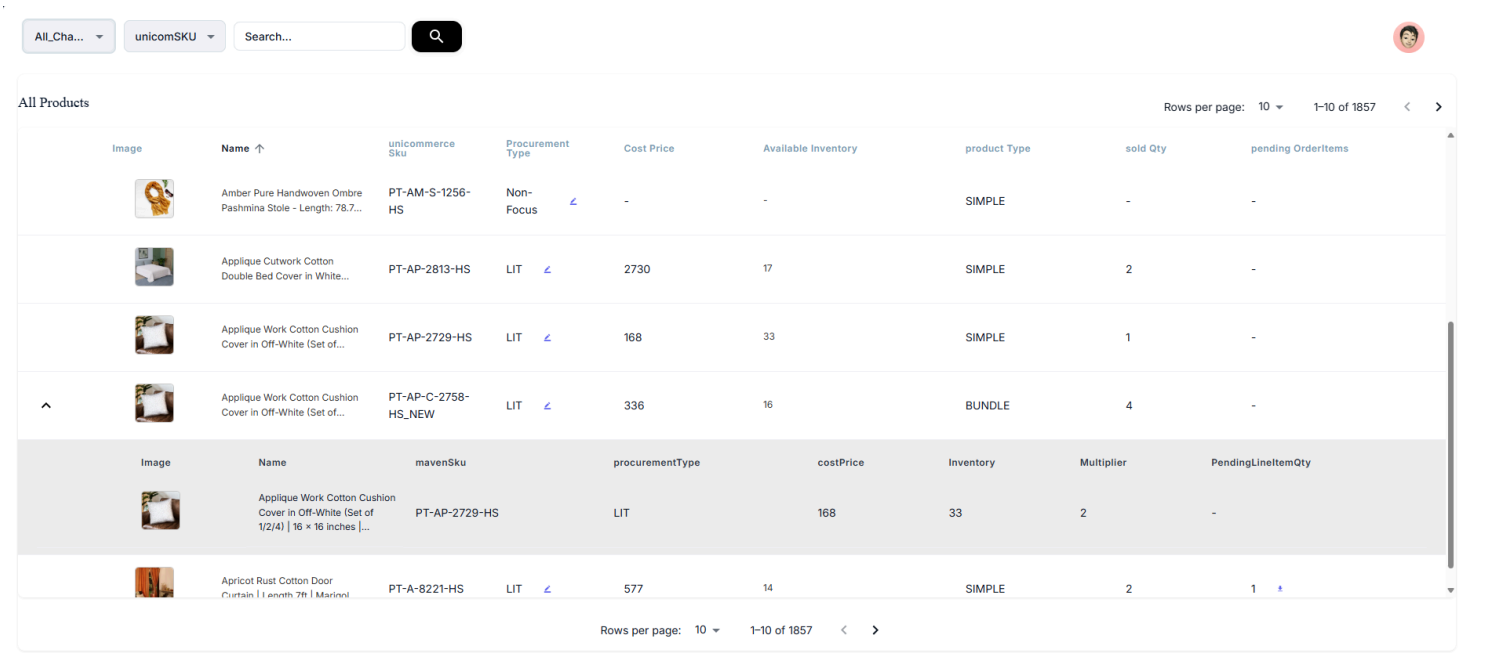
2024-12-31
120
2025-01-28
4
2025-02-08
Quantity
EDD
Received
4
2024-12-31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Available Inventory
product Type
sold Qty
pending OrderItems
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PT-AM-S-1256-HS
Non-Focus
-
-
SIMPLE
-
-
Applique Cutwork Cotton Double Bed Cover in White...
PT-AP-2813-HS
LIT
2730
17
SIMPLE
2
-
Applique Work Cotton Cushion Cover in Off-White (Set of...
PT-AP-2729-HS
LIT
168
33
SIMPLE
1
-
Applique Work Cotton Cushion Cover in Off-White (Set of...
PT-AP-C-2758-HS_NEW
LIT
336
16
BUNDLE
4
-
Image
Name
mavenSku
procurementType
costPrice
Inventory
Multiplier
PendingLineItemQty
Applique Work Cotton Cushion Cover in Off-White (Set of 1/2/4) | 16 × 16 inches |...
PT-AP-2729-HS
LIT
168
33
2
-
Apricot Rust Cotton Door Curtain | Length 7ft | Marigol...
PT-A-8221-HS
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