

KEDEBAH ERP

COMMERCE MODULE

Critical Show-Stopper Issues

User Stories & Acceptance Criteria — Developer Briefing Pack

Retail | POS | Warehouse | Wholesale

Version 1.0 | 3 May 2026

Ordered by **Pharmacy Operational User Journey Priority**

KEDEBAH ERP — COMMERCE MODULE

Priority Summary — 13 Show-Stopper Issues

All 13 issues below are ordered by pharmacy operational user journey — from product setup through to reporting and alerts. Each issue must be resolved before the system can safely go live in a pharmacy environment.

#	Issue Title	Module / Portal	Journey Phase
1	Create Product Button Not Visible in Warehouse Inventory	Warehouse — Inventory	Category 1 — Product Setup
2	Unit Conversion Not Working (Must Be Unit-Based, Not Variation-Based)	Inventory — Warehouse, Wholesale, Retail	Category 2 — Inventory Configuration
3	Inventory Loads Warehouse Quantities Instead of Outlet-Specific Quantities	Wholesale & Retail — Inventory	Category 3 — Stock Accuracy
4	Stock Adjustment Does Not Update Inventory	Warehouse, Wholesale & Retail — Stock Adjustment	Category 3 — Stock Accuracy
5	Stock Request — UI/UX Redesign and Functional Fixes	Warehouse & Wholesale — Stock Request	Category 4 — Stock Replenishment
6	Stock Transfer Receipt Does Not Update Inventory and Workflow Does Not Close	Warehouse & Wholesale — Stock Transfers	Category 4 — Stock Replenishment
7	POS Allows Sale When Stock is Zero and Does Not Deduct Inventory After Sale	Retail & Wholesale — POS	Category 5 — POS & Daily Sales
8	Invoice Can Be Created for Out-of-Stock Product Despite Strict Mode Being Active	Wholesale — Sales	Category 5 — POS & Daily Sales
9	Sales Return Throws an Error and Cannot Be Created	Wholesale & Retail — Sales	Category 6 — Returns & Reversals
10	Purchase Returns Cannot Be Created	Expenses — Wholesale; General — All Outlets	Category 6 — Returns & Reversals
11	Revenue Not Appearing in Financial Reports After Wholesale Invoice is Posted	Finance — Wholesale; Financial Reports	Category 7 — Finance
12	Reports Module Not Built	General — Finance, Inventory, Sales, Expenses (All Portals)	Category 7 — Finance & Reporting
13	Notifications and Alerts System Not Implemented	General — All Portals (Warehouse, Wholesale, Retail, POS)	Category 8 — Operational Support

Detailed Issue Breakdown

Each issue below includes pharmacy context, a user story, acceptance criteria, and a definition of done to enable complete developer briefing and pick-up.

ISSUE 1 | Create Product Button Not Visible in Warehouse Inventory

Module / Portal	Warehouse — Inventory
Journey Phase	Category 1 — Product Setup



Pharmacy Context

Before any dispensing, procurement, or sales activity can occur in a pharmacy, products (medicines, consumables, medical equipment) must exist in the system. If the Create Product button is missing for Warehouse users, no new pharmaceutical products can be entered, completely blocking all downstream workflows across every portal.



User Story

As a warehouse officer, I want to see and use the Create Product button in the Inventory module so that I can add new pharmaceutical products to the system, enabling procurement, stocking, and dispensing to proceed.

✓ Acceptance Criteria

1. The 'Create Product' button is visible on the Inventory list page for the Warehouse user role.
2. Clicking the button opens the product creation form without errors.
3. The product creation form includes: product name, category, unit of measure, unit conversion settings, retail price, wholesale price, and reorder level at minimum
4. Retail and Wholesale pricing fields are visible and editable on both the create and edit product forms based on the Outlet its being accessed from.
5. The Variations feature functions correctly on the product edit form.
6. The bulk upload template includes columns for retail price, wholesale price, and unit conversion.
7. Products created via bulk upload appear correctly in the Warehouse inventory list.
8. After creating a product, it is immediately visible in the inventory list without requiring a page refresh.

🏁 Definition of Done

1. Create Product button renders correctly for Warehouse user with appropriate permissions.
2. Product creation form loads all required fields including pricing and unit conversion.
3. Bulk upload with pricing and unit conversion processes without errors.
4. Newly created product appears in the inventory list view immediately.
5. QA has tested create, edit, and bulk upload flows for the Warehouse user role.

ISSUE 2 | Unit Conversion Not Working (Must Be Unit-Based, Not Variation-Based)

Module / Portal Inventory — Warehouse, Wholesale, Retail

Journey Phase **Category 2 — Inventory Configuration**

Pharmacy Context

Pharmacies buy medicines in bulk (e.g., 1 Carton = 10 Strips = 100 Tablets) and dispense in smaller units. Unit conversion is foundational to accurate stock tracking, costing, and patient dispensing. The current system incorrectly ties conversion to product variations rather than units of measure, making it non-functional for pharmaceutical use.

User Story

As a warehouse officer or pharmacist, I want to define unit conversions for pharmaceutical products (e.g., 1 Carton = 10 Strips = 100 Tablets) so that the system accurately tracks stock, calculates costs, and dispenses at the correct unit level regardless of how the product was purchased.

Acceptance Criteria

1. Unit conversion is configured at the product level under Inventory, linked to the product's units of measure — not to product variations.
2. A pharmacist can define conversion ratios for at least three tiers (e.g., Carton → Strip → Tablet).
3. When stock is received in bulk units (e.g., 2 Cartons), the system correctly converts and reflects the equivalent in base units (e.g., 200 Tablets) in inventory.
4. When a sale is made in a smaller unit (e.g., 10 Tablets), the inventory deducts the correct equivalent from bulk stock.
5. Unit conversions are available during product creation and editing, and are included in the bulk upload template.
6. POS sales and wholesale invoices respect the unit conversion when calculating stock deductions.
7. Reports and stock levels display quantities in the base unit with an optional toggle to view in purchase unit.
8. If a conversion is not defined, the system warns the user before allowing a sale or transfer.

Definition of Done

1. Unit conversion field is visible on product create/edit form and is not linked to variations.
2. Bulk upload template includes unit conversion columns and processes them correctly.
3. End-to-end test: receive 1 Carton (=100 Tablets), sell 10 Tablets — stock shows 90 Tablets remaining.
4. QA has verified conversion logic for at least 3 different product types.

5. Product owner has approved the UX for unit conversion setup.

ISSUE 3 | Inventory Loads Warehouse Quantities Instead of Outlet-Specific Quantities

Module / Portal	Wholesale & Retail — Inventory
Journey Phase	Category 3 — Stock Accuracy

Pharmacy Context

A retail pharmacy branch or wholesale outlet must see its own stock figures, not the warehouse's totals. Displaying warehouse quantities to branch staff causes critical dispensing errors — staff believe medicine is available at their branch when it is not, potentially leading to patient safety incidents and failed dispensing.

User Story

As a retail branch pharmacist or wholesale store manager, I want my Inventory module to display the stock quantities specific to my outlet so that dispensing and sales decisions are based on accurate, location-specific stock figures.

Acceptance Criteria

1. The Inventory module for a Wholesale user displays only the stock quantities held at the wholesale outlet, not the warehouse.
2. The Inventory module for a Retail user displays only the stock quantities held at the retail branch, not the warehouse.
3. If a product has zero stock at the outlet but stock exists at the warehouse, the outlet inventory shows zero (not the warehouse quantity).
4. The outlet context is applied automatically based on the logged-in user's assigned outlet — no manual filter required.
5. Stock Levels view also correctly scopes quantities to the user's outlet.
6. Warehouse users continue to see warehouse-level quantities without regression.
7. If a user is assigned to multiple outlets, a dropdown to select the active outlet is provided.

Definition of Done

1. Retail user logs in — inventory shows retail outlet quantities only.
2. Wholesale user logs in — inventory shows wholesale outlet quantities only.
3. Zero-stock scenario verified: warehouse has 100 units, retail has 0 — retail user sees 0.
4. Warehouse user inventory is unaffected (no regression).

5. QA has tested all three user types in the staging environment.

ISSUE 4 | Stock Adjustment Does Not Update Inventory

Module / Portal	Warehouse, Wholesale & Retail — Stock Adjustment
Journey Phase	Category 3 — Stock Accuracy

Pharmacy Context

Pharmacies perform periodic physical stock counts and must adjust records to match reality — correcting for breakage, pilferage, expired medicines, or counting errors. If adjustments do not update inventory, stock records are permanently inaccurate, leading to dangerous dispensing decisions based on wrong quantities.

User Story

As a pharmacy store manager or warehouse officer, I want stock adjustments I create and approve to immediately update inventory quantities so that stock records always reflect the true physical stock available for dispensing and sale.

Acceptance Criteria

1. When a stock adjustment is submitted and approved, the inventory quantity for the adjusted product updates immediately.
2. Positive adjustments (increase) increment the inventory count; negative adjustments (decrease) decrement it correctly.
3. The default classification for a new stock adjustment is preset to 'Active Inventory to Active Inventory' — no manual selection required.
4. The adjustment is reflected in both the Inventory module view and the Stock Levels view.
5. A stock adjustment in 'Draft' status does not affect inventory until it is posted/approved.
6. The system prevents submission of an adjustment that would result in negative inventory, and shows a clear warning.
7. The audit trail records who created, approved, and posted each adjustment, along with the before and after quantities.

Definition of Done

1. Create and approve a +10 unit adjustment — inventory increases by exactly 10.
2. Create and approve a -5 unit adjustment — inventory decreases by exactly 5.
3. Default classification is preset on the creation form without user intervention.
4. Audit trail entry is created for every adjustment action.

- Both Inventory and Stock Levels views reflect the update immediately — confirmed by QA.

ISSUE 5 | Stock Request — UI/UX Redesign and Functional Fixes

Module / Portal	Warehouse & Wholesale — Stock Request
Journey Phase	Category 4 — Stock Replenishment

Pharmacy Context

Inter-outlet stock requests are a daily activity in a pharmacy chain — a retail branch requests medicines from the warehouse or wholesale store. The current Stock Request interface has multiple usability and data accuracy issues that prevent pharmacy staff from managing these requests reliably, causing stock shortages at dispensing points.

User Story

As a retail branch pharmacist or warehouse officer, I want a clear and functional stock request interface so that I can raise, view, respond to, and track inter-outlet medicine requests accurately and efficiently.

Acceptance Criteria

- A search bar is available at the top of the Stock Request form to search and add items to the request table.
- Newly added items appear at the top of the table (latest item first).
- The Available Quantity column is displayed greyed out (read-only) for each line item.
- The Total Item count is displayed prominently at the top of the table near the search bar.
- 'Show Requester Quantity' toggle is turned ON by default.
- At the destination outlet view, the Requester Quantity column is visible when the toggle is enabled.
- The quantity table is redesigned to show Input Quantity, Requested Quantity, and Available Quantity on the same row per item.
- Available inventory quantity from the source outlet loads correctly and is visible when responding to the transfer.
- Once a stock transfer has been created for a stock request (partially or fully), the 'Create Stock Transfer' button is disabled or hidden for that request.

Definition of Done

- Search, add item, and table ordering all work correctly in staging.
- Requester Quantity is visible by default at the destination outlet view.

3. Available quantity correctly reflects source inventory at the point of response.
4. Stock Transfer button is hidden after a transfer has been created for the request.
5. UX reviewed and approved by product owner or BA.

ISSUE 6 | Stock Transfer Receipt Does Not Update Inventory and Workflow Does Not Close

Module / Portal	Warehouse & Wholesale — Stock Transfers
Journey Phase	Category 4 — Stock Replenishment

Pharmacy Context

After stock is physically moved from the warehouse to a pharmacy branch, the system must update the receiving branch's inventory immediately. Current failures mean branch staff see no stock increase after receipt, inventory counts remain wrong, and the transfer workflow stays open incorrectly — undermining the entire inter-outlet replenishment process.

User Story

As a retail branch manager or receiving officer, I want to receive transferred pharmaceutical stock and have my branch inventory automatically updated with the transfer marked as closed, so that dispensing staff always work from accurate stock figures.

Acceptance Criteria

1. When transferred items are received at the destination outlet, the branch inventory count increases by the received quantity immediately.
2. The increase is reflected in both the Inventory module and the Stock Levels view for the destination outlet.
3. If a stock transfer is partially received, the transfer status changes to 'Partially Received' and the Receive button is hidden — it must not remain available for a second receipt action.
4. If a stock transfer is fully received, the transfer status changes to 'Received/Closed' and the Receive button is hidden.
5. On the transfer detail view after receipt, the 'Create Receipt' button is not shown.
6. The Transfer Receipt table on the detail view shows: item name, quantity transferred, quantity received, and notes entered during receipt.
7. The receipt details table is positioned at the top of the transfer detail page.
8. Stock level discrepancies between Stock Levels view and the Inventory count are fully resolved — both show the same quantity post-transfer.

Definition of Done

1. End-to-end test: transfer 50 units → receive at branch → inventory increases by exactly 50.
2. Partial receipt closes the Receive button and updates status to 'Partially Received'.
3. Transfer detail view shows receipt table correctly positioned with all required columns.
4. Create Receipt button does not appear on a received transfer.
5. QA and product owner have signed off on the full transfer receipt flow.

ISSUE 7 | POS Allows Sale When Stock is Zero and Does Not Deduct Inventory After Sale

Module / Portal	Retail & Wholesale — POS
Journey Phase	Category 5 — POS & Daily Sales

Pharmacy Context

At a pharmacy POS, selling a medicine that is out of stock at the branch is a critical patient safety and operational error. It results in unfulfilled dispensing, negative inventory values, and inaccurate stock records that cascade into procurement errors. Every completed sale must deduct inventory to maintain accurate stock control.

User Story

As a pharmacy cashier or dispenser, I want the POS to prevent me from selling a product with zero stock and to automatically deduct the sold quantity from inventory after every successful sale, so that stock records are always accurate and patients receive correct dispensing confirmations.

Acceptance Criteria

1. The POS prevents a sale from being completed if the product's available quantity at the outlet is zero or below.
2. A clear warning message is shown to the cashier when they attempt to sell a zero-stock item (e.g., 'Insufficient stock. This item is out of stock at this outlet.').
3. After a successful POS sale, the inventory quantity for each sold item is deducted by the exact quantity sold.
4. The stock deduction is reflected immediately in both the Inventory module and the Stock Levels view.
5. If partial quantity is available (e.g., 5 units but customer requests 10), the POS shows the available quantity and prevents overselling.
6. The financial configuration 'strict stock check' setting is fully respected — the POS cannot override it.
7. The POS sale transaction is logged with the post-sale inventory level for audit purposes.

Definition of Done

1. Attempt to sell a zero-stock item — POS blocks the transaction and shows a warning message.
2. Complete a POS sale of 5 units — inventory reduces by exactly 5 at the correct outlet.
3. Stock Levels and Inventory module reflect the deduction immediately after the sale.
4. Strict stock configuration is honoured and cannot be bypassed from POS.
5. QA verifies both zero-stock block and post-sale deduction for Retail and Wholesale users.

ISSUE 8 | Invoice Can Be Created for Out-of-Stock Product Despite Strict Mode Being Active

Module / Portal	Wholesale — Sales
Journey Phase	Category 5 — POS & Daily Sales

Pharmacy Context

The pharmacy's financial configuration has been set to 'strict' to prevent invoicing for products not in stock and to enforce customer credit limits. This is a critical financial control. The current bug allows invoices to be raised even when strict mode is active, bypassing both the stock check and the credit limit check — a serious compliance and financial risk.

User Story

As a pharmacy finance officer or sales manager, I want the system to enforce strict inventory and credit limit checks during invoice creation so that no invoice is raised for an out-of-stock product or for an amount exceeding a customer's credit limit.

Acceptance Criteria

1. When financial configuration is set to 'strict inventory check', the invoice creation form validates that each line item has sufficient inventory at the outlet before allowing submission.
2. If any line item has zero or insufficient stock, the system blocks invoice creation and specifies which products are out of stock.
3. The strict check applies consistently in both the Sales module and the Finance module — no bypass possible from either.
4. A customer credit limit check is enforced — if the invoice total exceeds the customer's set credit limit, the system blocks the invoice with a clear warning.
5. Both checks (stock and credit limit) are applied simultaneously before the invoice is saved.
6. The strict setting cannot be overridden at the invoice level without an admin-level permission change.
7. The audit trail logs any attempted bypass or override of these controls.

🔍 Definition of Done

1. Strict mode active — attempt to invoice an out-of-stock item — system blocks with an error message.
2. Strict mode active — attempt to invoice exceeding customer credit limit — system blocks with an error message.
3. Both checks apply equally in the Sales and Finance modules.
4. Admin can view audit trail of all blocked invoice attempts.
5. QA tests strict and non-strict mode separately to confirm correct behaviour in both cases.

ISSUE 9 | Sales Return Throws an Error and Cannot Be Created

Module / Portal	Wholesale & Retail — Sales
Journey Phase	Category 6 — Returns & Reversals

🏪 Pharmacy Context

Customers at a pharmacy may return medicines due to incorrect dispensing, wrong product given, or a change of mind within policy. Without a working sales return process, the pharmacy cannot reverse the sale, restore inventory, or issue a refund or credit note — creating financial inaccuracies and poor patient experience.

📖 User Story

As a pharmacy sales officer or cashier, I want to create a sales return against a completed invoice or POS receipt so that I can process customer medicine returns, restore the inventory, and issue a refund or credit note accurately.

✅ Acceptance Criteria

1. A 'Create Return' option is available under Sales for all completed invoices.
2. The user can search for and select the original invoice or POS receipt to return against.
3. The user can select specific line items and quantities to return — both partial and full returns are supported.
4. On submission, no error is thrown — the return is created successfully and a confirmation message is displayed.
5. The returned quantity is added back to the outlet's inventory immediately upon return approval.
6. A credit note is automatically generated and linked to the sales return.
7. The original invoice status updates to 'Partially Returned' or 'Fully Returned' accordingly.
8. The return is posted to the finance module, reversing the original revenue entry correctly.
9. The sales return appears in the Sales Returns report.

❏ Definition of Done

1. Sales return created without any error from both the Sales module and POS.
2. Returned quantity is added back to the correct outlet's inventory.
3. Credit note is generated and linked to the return.
4. Finance posting reversal is validated by the finance lead.
5. QA has tested partial and full return scenarios for both Retail and Wholesale users.

ISSUE 10 | Purchase Returns Cannot Be Created

Module / Portal	Expenses — Wholesale; General — All Outlets
Journey Phase	Category 6 — Returns & Reversals

🏪 Pharmacy Context

Pharmacies regularly return expired, damaged, or incorrectly supplied medicines to vendors. Without a working purchase return process, the pharmacy cannot recover costs, correct over-received inventory, or maintain accurate vendor accounts — impacting both cash flow and regulatory compliance.

📖 User Story

As a procurement officer or store manager, I want to create a purchase return against a vendor receipt or invoice so that I can return faulty or excess pharmaceutical stock, reverse the inventory impact, and obtain the appropriate credit from the vendor.

✅ Acceptance Criteria

1. A 'Create Return' button is available under Expenses for completed purchase receipts and vendor invoices/bills.
2. The user can select the vendor and the system populates all related receipts and invoices/bills for that vendor.
3. The user can select specific line items and quantities to return — partial and full returns are both supported.
4. On submission, the system reverses the inventory quantity for the returned items in the correct outlet.
5. A vendor credit note or debit note is automatically generated and linked to the return.
6. The original receipt or vendor invoice status updates to 'Partially Returned' or 'Fully Returned'.
7. The purchase return is posted to the finance ledger correctly, reversing the original purchase entry.
8. No error is thrown on return creation — the flow completes with a confirmation message.

9. The return appears in the purchase return report and the vendor's transaction history.

❏ Definition of Done

1. Purchase return can be created without errors from both receipt and vendor invoice flows.
2. Inventory is reduced correctly for the returned items at the correct outlet.
3. Finance posting reversal is validated by the finance lead.
4. Vendor's outstanding balance reflects the credit from the return.
5. QA confirms no error is thrown throughout the return workflow end-to-end.

ISSUE 11 | Revenue Not Appearing in Financial Reports After Wholesale Invoice is Posted

Module / Portal	Finance — Wholesale; Financial Reports
Journey Phase	Category 7 — Finance

🏪 Pharmacy Context

When a pharmacy posts a wholesale invoice to the Finance module, revenue must appear in financial reports for accurate P&L tracking, tax filing, and management review. The current bug silently drops revenue from reports after posting, producing incorrect financial statements and making the Finance module unreliable for decision-making.

📖 User Story

As a pharmacy finance officer, I want posted wholesale invoices to be accurately reflected in financial reports so that revenue is correctly captured in the profit and loss statement and management can make informed financial decisions.

✅ Acceptance Criteria

1. When a wholesale invoice is created and posted in the Finance module, the revenue figure appears in the Revenue section of the financial reports.
2. The correct revenue account ledger is credited upon posting of the invoice.
3. The double-entry posting is complete — both legs of the journal entry (debit: receivable, credit: revenue) are created on posting.
4. Revenue is visible in the P&L report, Revenue by Period report, and Sales Summary report.
5. Filtering the financial report by invoice date and customer correctly surfaces the transaction.
6. If a posting is incomplete (one leg missing), the system prevents posting and shows a descriptive error rather than silently failing.
7. Re-posting a previously broken invoice corrects the ledger entries without duplication.

❏ Definition of Done

1. End-to-end test: create wholesale invoice → post → verify revenue appears in financial report.
2. Finance lead confirms both journal legs are created correctly in the ledger.
3. No silent failures — invalid postings surface a user-readable error message.
4. Regression test ensures previously posted invoices are not affected.
5. Product owner signs off on report accuracy.

ISSUE 12 | Reports Module Not Built

Module / Portal	General — Finance, Inventory, Sales, Expenses (All Portals)
Journey Phase	Category 7 — Finance & Reporting

🏪 Pharmacy Context

Pharmacies are heavily regulated and require accurate reporting for regulatory filings (e.g., Pharmacy Council), management decision-making, procurement planning, and financial audits. Without reports, managers cannot track revenue, inventory movement, product expiry, or staff sales performance — the business is operating blind.

📖 User Story

As a pharmacy manager or owner, I want to generate operational and financial reports from the ERP so that I can monitor business performance, ensure regulatory compliance, and make informed procurement and sales decisions.

✅ Acceptance Criteria

1. The platform provides a Reports module accessible from all portals, with access scoped by user role and permission.
2. Inventory reports include: current stock levels by outlet, low stock items, out-of-stock items, items nearing expiry, and stock movement history.
3. Sales reports include: daily/weekly/monthly sales summaries, sales by product, sales by staff/cashier, and POS transaction logs.
4. Financial reports include: revenue by period, outstanding invoices, payment receipts, and profit & loss summaries.
5. Purchase/Expense reports include: vendor invoices, purchase orders raised, goods received notes, and expense summaries.
6. Stock transfer reports include: inter-outlet transfers, pending transfers, and partially fulfilled requests.
7. All reports are filterable by date range, outlet, product category, and user.

8.	Reports can be exported in PDF and Excel formats.
9.	Financial reports correctly reflect posted transactions — revenue from a posted wholesale invoice must appear in the revenue report.
10.	Retail and Wholesale user reports show data scoped to their respective outlets only, not warehouse-level data.

🔍 Definition of Done

1.	All listed report types render with accurate data in the staging environment.
2.	Revenue from a posted invoice appears correctly in the financial report.
3.	Export to PDF and Excel functions without errors.
4.	Reports are correctly scoped per user role (Retail/Wholesale/Warehouse).
5.	Product owner and finance lead have reviewed and approved all report formats.

ISSUE 13 | Notifications and Alerts System Not Implemented

Module / Portal	General — All Portals (Warehouse, Wholesale, Retail, POS)
Journey Phase	Category 8 — Operational Support

🏪 Pharmacy Context

In a pharmacy, timely alerts are operationally critical. Staff must be notified when medicines are running low, items are nearing expiry, purchase orders are approved or rejected, and when a staff shift has ended without logout. Without alerts, staff must manually check every module — increasing the risk of stockouts, expired medicine dispensing, and security lapses.

📖 User Story

As a pharmacy staff member (dispensary technician, store manager, or warehouse officer), I want to receive real-time notifications and alerts within the ERP so that I can respond promptly to stock events, approvals, and system activities without manually checking every module.

✅ Acceptance Criteria

1.	Notifications are displayed in a persistent bell icon/notification tray accessible from all four portals.
2.	Alerts are triggered for low stock levels on essential medicines when stock falls below the configured reorder point.
3.	Alerts are triggered for items nearing expiry within a configurable window (e.g., 30, 60, or 90 days).
4.	Notifications are sent when a purchase order, stock transfer, or stock adjustment is approved or rejected.

5.	A session timeout/shift-end alert is displayed to the logged-in user if they have not logged out after their designated shift period.
6.	Notifications are marked as read when clicked, with an unread count badge visible at all times.
7.	Admins can configure which alert types are active per user role (e.g., pharmacist, cashier, warehouse officer).
8.	All alerts persist in a notification history log accessible for audit purposes.
9.	Notifications function across all user types: Warehouse, Wholesale, and Retail.

☒ Definition of Done

1.	All four portals render the notification tray with no console errors.
2.	A test low-stock scenario triggers a visible alert within 60 seconds.
3.	Shift-end alert fires at the configured shift end time for a logged-in user.
4.	QA has verified alert delivery across all user roles in the staging environment.
5.	Product owner has approved alert categories and notification delivery behaviour.