

Standard Operating Procedure (SOP)

Inventory Management System

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1. Purpose

This document provides a complete Standard Operating Procedure (SOP) for the **Inventory Management System**. It serves as the authoritative guide for all users — administrators, managers, and employees — to understand and operate every feature of the system, from initial setup through day-to-day operations, reporting, and auditing.

2. Scope

This SOP covers:

- System installation, configuration, and initial setup
 - User authentication and role-based access control (RBAC)
 - All master data modules (product types, products, stores, statuses, suppliers, departments)
 - Employee lifecycle management
 - Purchase order creation and processing
 - Inventory/stock management and asset tagging
 - Asset distribution (issue/return) to employees
 - QR code and barcode generation and printing
 - Requisition management
 - Reporting and analytics
 - Data import/export
 - Onboarding/offboarding workflows
 - System settings and user activity logs
 - Troubleshooting and common operations
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3. System Overview

The Inventory Management System is a web-based application designed to manage the complete lifecycle of organizational assets — from procurement to distribution to retirement. It provides:

- **Centralized asset tracking** with unique asset tags, serial numbers, and service tags
- **Purchase management** with multi-product purchase orders, supplier tracking, and GRN generation
- **Automated inventory creation** from approved purchases
- **Employee assignment tracking** with acknowledgement receipts
- **QR code and barcode** label generation for physical asset identification
- **Comprehensive reporting** across employees, stocks, transactions, and inventory
- **Role-based access control** with 52 granular permissions
- **Complete audit trail** via user activity logs

4. Technology Stack

Component	Technology
Backend Framework	Laravel 11.x (PHP 8.2+)
Frontend	Blade Templates, Bootstrap (Laravel UI), Vite
Database	MySQL / MariaDB
DataTables	Yajra Laravel DataTables (server-side)
PDF Generation	Barryvdh DomPDF
Excel Import	Maatwebsite Excel v3.1
Barcode	Milon Barcode (Code128)
QR Code	SimpleSoftwareIO Simple QR Code v4.2
Image Processing	Intervention Image v3.7 (GD driver)
RBAC	Spatie Laravel Permission v6.9
Activity Logging	Spatie Laravel Activity Log v4.8
Notifications	Brian2694 Laravel Toastr
Web Server	Apache (WAMP) / Nginx

5. User Roles & Access Levels

The system ships with three predefined roles. Additional custom roles can be created.

5.1 Super Admin

Attribute	Value
Default Email	superadmin@gmail.com
Default Password	123456
Username	superadmin
Access	Full access to all 52 permissions
Special Privileges	Can manage all users including other admins; cannot be deleted or modified by non-super-admins

5.2 Admin

Attribute	Value
Default Email	admin@gmail.com

Attribute	Value
Default Password	123456
Username	admin
Access	Full access to all 52 permissions
Restrictions	Cannot assign/modify the super-admin role; cannot see super-admin user in user lists

5.3 Employee (Self-Service)

Attribute	Value
Access	Limited to 3 self-service permissions
Permissions	self-view-profile, self-view-assets, self-view-transactions

5.4 Custom Roles

Administrators can create custom roles with any combination of the 52 available permissions (see [Appendix](#)).

IMPORTANT: Change default passwords immediately after first login.

6. System Installation & Setup

6.1 Prerequisites

- PHP 8.2 or higher
- Composer
- Node.js & NPM
- MySQL / MariaDB database
- Apache or Nginx web server
- PHP Extensions: GD, mbstring, xml, zip, curl, bcmath

6.2 Installation Steps

```
# 1. Clone the repository
git clone <repository-url> inventory-management
cd inventory-management

# 2. Install PHP dependencies
composer install

# 3. Install Node.js dependencies
npm install

# 4. Environment configuration
```

```
cp .env.example .env
php artisan key:generate
```

6.3 Database Configuration

Edit the `.env` file:

```
DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3306
DB_DATABASE=inventory_management
DB_USERNAME=root
DB_PASSWORD=your_password
```

6.4 Database Migration & Seeding

```
# Run all migrations
php artisan migrate

# Seed initial data (permissions, roles, admin users)
php artisan db:seed
```

This will execute:

1. **PermissionTableSeeder** — Creates 52 permissions
2. **CreateAdminUserSeeder** — Creates Super Admin, Admin, and Employee role

6.5 Build Frontend Assets

```
# Development
npm run dev

# Production
npm run build
```

6.6 Storage & Permissions

```
php artisan storage:link
```

Ensure the following directories are writable:

- `storage/`
- `bootstrap/cache/`

- `public/images/employee/`
- `storage/qrcodes/`

7. Login & Authentication

7.1 Accessing the System

1. Open a web browser and navigate to the application URL
2. The login page is displayed at the root URL (`/`) or `/login`

7.2 Login Procedure

1. Enter your **Email Address**
2. Enter your **Password** (minimum 6 characters)
3. Click **Login**
4. On successful authentication, you are redirected to the **Dashboard**
5. On failure, an error message is displayed: *"The provided credentials do not match our records."*

7.3 First Login — Forced Password Change

- If the `must_change_password` flag is set on your account, you will be **automatically redirected** to the password change page
- You **cannot access any other page** until the password is changed
- After changing the password, the flag is cleared and you can navigate normally

7.4 Logout

1. Click the **Logout** button/link
2. Your session is invalidated and CSRF token is regenerated
3. You are redirected to the login page

Audit: All login and logout actions are recorded in the User Activity Log.

8. Dashboard

Route: `/dashboard`

Permission: Authenticated users only

The dashboard provides a real-time overview of the inventory system:

8.1 Key Metrics Displayed

Metric	Description
Total Employees	Count of active employees (status = 1)
Purchases This Month	Number of purchases in the current month
Total Stock Items	Total number of stock records

Metric	Description
Total Laptops	Stock items of type "Laptop"
Total Mobiles	Stock items of type "Mobile"
Assigned Laptops	Laptops currently assigned to employees
Assigned Mobiles	Mobiles currently assigned to employees
Total Assigned	All stock items currently assigned
Total Available	All stock items available for distribution
Utilization Rate	Percentage of stock currently assigned
Warranty Expiring (30 days)	Items with warranty expiring within 30 days
Warranty Expired	Items with expired warranty
Low Stock Categories	Product types with < 5 available items
Out of Stock	Product types with 0 available items

8.2 Additional Dashboard Elements

- **Top 5 Product Categories** — by total stock count
- **Monthly Purchase Trend** — last 6 months chart
- **Recent Purchases** — last 5 purchases with supplier info

9. Master Data Management

Master data forms the foundation of the inventory system. These must be configured before processing purchases or distributions.

Recommended setup order: Departments → Product Types → Products → Stores → Asset Statuses → Suppliers

9.1 Product Types

Route: /product-types

Permissions Required: product-type-list, product-type-create, product-type-edit, product-type-delete

Product types are categories of assets (e.g., Laptop, Monitor, Mouse, Software License).

9.1.1 View Product Types

1. Navigate to **Product Types** from the sidebar
2. All product types are listed in reverse chronological order

9.1.2 Create Product Type

1. Click the **Add** button
2. Fill in:
 - **Name** (*required, unique, max 255 characters*)
3. The system auto-generates a URL slug from the name
4. Click **Save**
5. Success notification is displayed

9.1.3 Edit Product Type

1. Click the **Edit** icon on the desired row
2. Modify the name
3. Click **Update**

9.1.4 Delete Product Type

1. Click the **Delete** icon on the desired row
2. Confirm the deletion
3. The product type is permanently removed

Note: Deletion will fail if any products are associated with the product type.

9.2 Products

Route: `/products`

Permissions Required: `product-list`, `product-create`, `product-edit`, `product-delete`

Products are specific items within product types (e.g., "Dell Latitude 5540" under "Laptop").

9.2.1 View Products

1. Navigate to **Products** from the sidebar
2. Products are listed with their type, brand, model, and flags

9.2.2 Create Product

1. Click the **Add** button
2. Fill in:
 - **Product Type** (*required, dropdown*)
 - **Brand** (*required*)
 - **Model** (*required*)
 - **Unit** (*required, e.g., pcs, license*)
 - **Requires Serial Number** (*checkbox*) — If checked, serial numbers must be entered during purchase
 - **Requires License/Warranty** (*checkbox*) — If checked, warranty info is mandatory during purchase
 - **Is Taggable** (*checkbox*) — If checked, asset tags are auto-generated when added to inventory
 - **Is Consumable** (*checkbox*) — Marks the product as a consumable item
 - **Description** (*optional*)

3. The product title is automatically composed as: **Brand + Model + Type Name**
4. Click **Save**

9.2.3 Edit Product

1. Click the **Edit** icon
2. Modify fields as needed
3. Check/uncheck the **Is Consumable** flag as needed
4. Click **Update**

9.2.4 Delete Product

1. Click the **Delete** icon
 2. Confirm the deletion
 3. **Restriction:** A product cannot be deleted if it has any associated purchase products
-

9.3 Stores / Locations

Route: `/stores`

Permissions Required: `store-list`, `store-create`, `store-edit`, `store-delete`

Stores represent physical storage locations for inventory items.

9.3.1 Create Store

1. Click **Add**
2. Enter:
 - **Name** (*required*)
 - **Address** (*optional*)
3. Click **Save**

9.3.2 Edit / Delete Store

- Edit: Click **Edit** icon, update name/address, click **Update**
 - Delete: Click **Delete** icon. **Restriction:** Cannot delete if stock items reference this store.
-

9.4 Asset Statuses

Route: `/statuses`

Permissions Required: `status-list`, `status-create`, `status-edit`, `status-delete`

Asset statuses categorize the condition or lifecycle stage of stock items (e.g., Active, In Repair, Disposed).

9.4.1 Create Status

1. Click **Add**
2. Enter **Name** (*required*)
3. Click **Save** — slug is auto-generated

9.4.2 Edit / Delete Status

- Edit: Click **Edit** icon, update name, click **Update**
 - Delete: Click **Delete** icon. **Restriction:** Cannot delete if stock items reference this status.
-

9.5 Suppliers

Route: </suppliers>

Permissions Required: [suppliers-list](#), [suppliers-create](#), [suppliers-edit](#), [suppliers-delete](#)

Suppliers are organizations providing products for purchase.

9.5.1 Create Supplier

1. Click **Add**
2. Fill in:
 - **Company Name** *(required)*
 - **Contact Person Name** *(required)*
 - **Phone** *(optional)*
 - **Email** *(optional)*
 - **Address** *(optional)*
 - **Description** *(optional)*
3. Click **Save**

9.5.2 Edit / Delete Supplier

- Edit: Click **Edit** icon, update fields, click **Update**
 - Delete: Click **Delete** icon. **Restriction:** Cannot delete if purchases reference this supplier.
-

9.6 Departments

Route: </departments>

Permissions Required: [department-list](#), [department-create](#), [department-edit](#), [department-delete](#)

Departments are organizational units that employees belong to.

9.6.1 Create Department

1. Click **Add**
2. Enter:
 - **Name** *(required)*
 - **Short Name** *(optional)*
3. Click **Save** — slug is auto-generated

9.6.2 Edit / Delete Department

- Edit: Click **Edit** icon, update name/short name, click **Update**
- Delete: Click **Delete** icon. **Restriction:** Cannot delete if employees belong to this department.

10. Employee Management

Route: `/employees`

Permissions Required: `employee-list`, `employee-create`, `employee-edit`, `employee-delete`

10.1 View Employees

1. Navigate to **Employees** from the sidebar
2. The page displays:
 - **Summary Statistics:** Total employees, Active, Inactive, With Assignments, Departments, Active Distributions
3. The DataTable supports filtering by:
 - **Department** (dropdown)
 - **Status** (Active / Inactive)
 - **Assignment Status** (With Assets / Without Assets)
4. Each row shows: Employee info (photo, ID, name, designation), Contact info, Status badge, Assignment count

10.2 Create Employee

1. Click **Create Employee**
2. Fill in:
 - **Department** (*required, dropdown*)
 - **Employee Name** (*required*)
 - **Designation** (*required*)
 - **Employee ID** (*required, unique numeric identifier*)
 - **Phone** (*optional*)
 - **Email** (*optional*)
 - **Date of Joining** (*optional*)
 - **Profile Photo** (*optional, image file*)
3. The photo is automatically resized to **400×400 pixels**
4. Default image is used if no photo is uploaded
5. Employee status is set to **Active** by default
6. Click **Save**

10.3 View Employee Details

1. Click the **View** icon on an employee row
2. View complete employee profile

10.4 Edit Employee

1. Click the **Edit** icon
2. Update fields as needed
3. Upload a new photo to replace the existing one (old photo is deleted)
4. Click **Update**

10.5 Toggle Employee Status

1. Click the **Status Toggle** button on an employee row
2. The status alternates between **Active** (1) and **Inactive** (2)

Audit: All employee create/edit/status operations are logged.

11. Purchase Management

Route: /purchases

Permissions Required: purchase-list, purchase-create, purchase-edit, purchase-delete, purchase-addinventory

The purchase module handles procurement of assets from suppliers.

11.1 View Purchases

1. Navigate to **Purchases** from the sidebar
2. The page displays:
 - **Summary Statistics:** Total purchases, Approved, Pending, Total Value, This Month count/value
3. The DataTable supports filtering by:
 - **Supplier** (dropdown)
 - **Approval Status** (Approved / Pending)
 - **Date Range** (from-to date pickers)
 - **Price Range** (minimum-maximum)
4. Each row shows: Status badge, Approval progress bar, Date, Price, Actions

11.2 Create Purchase

1. Click **Create Purchase**
2. Fill in the **Purchase Header:**
 - **Supplier** (required, dropdown)
 - **Invoice Number** (auto-generated in format *DDMMYYYY-NNN*, editable)
 - **Reference Invoice** (optional)
 - **Challan Number** (optional)
 - **Purchase Date** (required)
 - **Received Date** (optional)
3. **Add Product Lines** (one or more):
 - **Product Type** (required, dropdown) — Filters available products
 - **Product** (required, dropdown) — Filtered by selected type
 - **Quantity** (required, numeric)
 - **Unit Price** (required, numeric)
 - **Total** (auto-calculated: $\text{quantity} \times \text{unit price}$)
 - **Serial Numbers** (required if product has *is_serial* flag) — Enter each serial on a new line
 - **Warranty Period** (required if product has *is_license* flag) — In months; expiry date is auto-calculated
4. Click **Add More** to add additional product lines
5. Click **Save Purchase**

Validation Rules:

- If a product requires serial numbers, the count of serials must **exactly match** the quantity
- If a product requires warranty, the warranty field is mandatory
- At least one product line is required

After saving: The purchase is created with status **Pending** (`is_stocked = 2`).

11.3 Edit Purchase

1. Click **Edit** on a purchase row
2. Modify purchase header or product lines
3. Add new product lines, update existing ones, or remove lines
4. Click **Update**
5. The purchase is reset to **Pending** status

11.4 View Purchase Details

1. Click **View** on a purchase row
2. See complete purchase information, product lines, and stock status

11.5 Generate GRN (Goods Received Note)

1. From the purchase list or purchase view, click **GRN**
2. A **landscape A4 PDF** is generated containing:
 - Supplier information
 - All product lines with quantities, serials, and prices
 - Total amount
3. The PDF can be printed or downloaded

11.6 Add to Inventory (Approve Purchase)

Permission Required: `purchase-addinventory`

This is the critical step that converts purchase products into stock entries.

1. From the purchase view, click **Add to Inventory** for a product line
2. The system creates stock records based on the product type:

Product Type	Stock Creation Logic
Laptop	Creates 1 stock record per unit . Service tags assigned from serial numbers.
Software	Creates 1 stock record with the total quantity.
Other Products	Creates 1 stock record per unit .

3. **If the product is taggable** (`is_taggable = true`):
 - Asset tags are **auto-generated** in the format: `{TypeInitial}{5-digit-number}`
 - Example: `L00001` for Laptop, `M00001` for Monitor
 - The system finds the highest existing tag for that prefix and increments

4. After processing:

- The PurchaseProduct is marked as stocked (**is_stocked = 1**)
- When all products in a purchase are stocked, the purchase itself is marked as stocked

Important: This action is irreversible. Verify product details before adding to inventory.

11.7 View Purchased Products

Route: `/purchased-products`

1. Navigate to **Purchased Products**
2. View all individual purchase product records across all purchases
3. Click on a product to see detailed information

12. Inventory / Stock Management

Route: `/inventories`

Permissions Required: `inventory-list`, `inventory-create`, `inventory-edit`, `inventory-delete`, `inventory-update-tag`

12.1 View Inventory

1. Navigate to **Inventory** from the sidebar
2. The page displays:
 - **Summary Statistics:** Total items, Assigned, Available, Pending Tags, Warranty Expiring (30 days), Damaged Items
3. The DataTable supports filtering by:
 - **Product Type** (dropdown)
 - **Condition** (dropdown)
 - **Store / Location** (dropdown)
 - **Supplier** (dropdown)
 - **Department** (dropdown)
 - **Assignment Status** (Assigned / Available)
4. Each row shows: Asset tag, Serial/Service tag, Product info, Store, Condition, Assignment status (employee name or store), Actions
5. **QR + Barcode combo print button** is available for selected items

12.2 View Stock Item Details

1. Click **View** on a stock row
2. View complete stock information including:
 - Product details (type, brand, model)
 - Purchase information (date, supplier, invoice)
 - Asset identifiers (tag, serial, service tag, MAC)
 - Current assignment status
 - Warranty information
 - Transaction history

12.3 Edit Stock Item

1. Click **Edit** on a stock row (or from the detail view)
2. Editable fields:
 - **Store / Location** (*dropdown*)
 - **Asset Condition** (*dropdown*)
 - **Serial Number / Service Tag**
 - **Asset Tag**
3. **Employee Reassignment:**
 - If you change the assigned **Employee ID**:
 - The current assignment is **automatically closed** (return date set)
 - A **new transaction** is created for the new employee
 - If the stock is unassigned and you assign an employee:
 - A new transaction is created
 - Stock status changes to **Assigned**
4. Click **Update**

12.4 Pending Asset Tags

Route: `/pending-tag-updates`

Permission Required: `inventory-update-tag`

1. Navigate to **Pending Tag Updates**
2. View all stock items that do **not** have an asset tag
3. Filter by: Product type, Status, Store, Assignment status
4. For each item, enter the asset tag manually
5. Click **Update Tag** — the tag is saved via AJAX

12.5 Bulk Upload Asset Tags

1. From the Pending Tags page, click **Upload Bulk**
2. Upload an **Excel/CSV file** with asset tag mappings
3. The system processes the file using the `StockImport` class
4. Tags are assigned to matching stock records

13. Distribution / Transaction Management

Route: `/transactions`

Permissions Required: `distribution-list`, `distribution-create`, `distribution-edit`, `distribution-delete`, `distribution-return`

This module manages the assignment (issue) and return of assets to/from employees.

13.1 View Distributions

1. Navigate to **Distributions** from the sidebar
2. The page displays:

- **Summary Statistics:** Total transactions, Active assignments, Returned items, Overdue (>30 days), Unique employees, Total items out
3. The DataTable supports filtering by:
 - **Employee** (dropdown)
 - **Department** (dropdown)
 - **Product Type** (dropdown)
 - **Status** (Active / Returned / Overdue)
 - **Date Range** (from-to)
 4. Each row shows: Employee info, Product info, Issue date, Return date, Status (Active/Returned/Overdue)

13.2 Create Distribution (Issue Asset)

1. Click **Create Distribution**
2. Fill in:
 - **Product Type** (*required, dropdown*) — Filters available stock
 - **Available Item** (*required, dropdown*) — Shows only unassigned/available stock
 - **Employee** (*required, dropdown*)
 - **Quantity** (*required, for software items*)
 - **Date of Issue** (*required*)
 - **Comment** (*optional*)
 - **Print Acknowledgement** (*checkbox*) — If checked, ACK PDF opens after save
3. Click **Save**

Business Logic:

- **Software/License Items:** The system checks available license count (**quantity** - **assigned**). If sufficient, increments the **assigned** count.
- **Physical Items:** The stock item is directly marked as **Assigned** (**is_assigned** = 1).
- A **Transection** record is created linking the stock to the employee.

13.3 Process Return

There are two methods to process a return:

Method A — From the Edit/Update

1. Click **Edit** on a distribution row
2. Set the **Return Date**
3. Click **Update**

Method B — Quick Return (AJAX)

1. Click **Mark Returned** on a distribution row
2. Set the return date in the inline field
3. Confirm the return

Return Business Logic:

- **Software:** Decrements the **assigned** count. If no copies remain assigned, resets **is_assigned** = 2.

- **Physical Items:** Sets `is_assigned = 2` (Available).
- The `return_date` is set on the `Transection` record.

13.4 Print Acknowledgement (ACK)

1. **Single ACK:** Click **ACK** on a distribution row → A4 PDF is generated
2. **Multi-Item ACK:** Select multiple distributions, enter employee ID and issue date, click **Print ACK** → Combined A4 PDF for all selected items

13.5 Print Return Receipt

1. Click **Return Receipt** on a returned distribution row
2. A PDF return form is generated

14. Requisition Management

Route: `/requisitions`

Permissions Required: *(Currently no explicit permission middleware)*

Requisitions allow departments to formally request assets.

14.1 View Requisitions

1. Navigate to **Requisitions** from the sidebar
2. All requisitions are listed

14.2 Create Requisition

1. Click **Create Requisition**
2. Fill in:
 - **Product Type** *(required, dropdown)*
 - **Product** *(optional, dropdown — filtered by type)*
 - **Department** *(required, dropdown)*
 - **Quantity** *(required)*
 - **Description** *(optional)*
 - **Justification** *(optional)*
 - **Remarks** *(optional)*
3. Click **Save**
4. Status is set to **Pending** automatically

15. QR Code & Barcode Management

Permissions Required: `qrcode-generate`, `qrcode-print`, `barcode-generate`, `barcode-print`

The system supports three types of labels: QR codes, barcodes, and combo (QR + Barcode) labels.

15.1 QR Code Generation

QR codes contain structured data about the stock item:

- Organization name
- Serial/Service tag number
- Product type and model
- Asset tag
- Purchase date
- URL link to the stock detail page

15.2 Individual Stock Labels

From any stock item view or the inventory list:

Action	Label Size	Content
Print QR Code	1.4" × 1.4"	QR code with stock data
Print Barcode	3.5" × 1.4"	Code128 barcode with serial
Print Combo Label	1.4" × 2.5"	QR code + Code128 barcode

15.3 Bulk Label Printing

1. In the Inventory list, select multiple stock items using checkboxes
2. Choose the print action:
 - **Print Multiple QR Codes** — A4 page with multiple 1.4" QR labels
 - **Print Multiple Barcodes** — A4 page with multiple barcode labels
 - **Print Multiple Combo Labels** — A4 page with 1.4" × 2.5" combo labels

15.4 Purchase-Level Label Printing

From a purchase view:

Action	Description
Print QR Codes	All stock items from the purchase on one PDF
Print QR Labels	Individual 1.4" × 1.4" QR labels per stock
Print Combo Labels	Individual 1.4" × 2.5" QR + Barcode labels per stock

15.5 Custom QR Code Generation

Route: </qr-codes>

1. Navigate to **QR Code Generator**
2. Options:
 - **Custom Data** — Enter up to 1,000 characters of text
 - **URL** — Enter a URL to generate a QR code
3. Customize: Color, margin, error correction level
4. Click **Generate**

16. Reports

Route: `/reports/*`

Permissions Required: `report-list, report-view, report-employee, report-product, report-distribution, report-purchase, report-inventory, users-log, user-log-view`

16.1 Employee Report

Route: `/reports/employees`

1. Navigate to **Reports** → **Employees**
2. Filter by **Department** and **Sort Order**
3. View employee listing with asset assignment summary
4. Click on an employee to see detailed asset report

16.2 Stock Summary Report

Route: `/reports/stocks`

1. Navigate to **Reports** → **Stocks**
2. View stock summary **grouped by product type**:
 - Total items per type
 - Assigned count
 - Available count
 - Total value (from purchase data)
3. Click on a type to drill down to detailed stock list

16.3 Transaction Report

Route: `/reports/transactions`

1. Navigate to **Reports** → **Transactions**
2. Filter by **Employee** and sort
3. View all transaction history with issue/return dates

16.4 Detailed Inventory Report

Route: `/reports/detailed-inventory`

1. Navigate to **Reports** → **Detailed Inventory**
2. Apply filters:
 - **Product Type**
 - **Product Model**
 - **Store / Location**
 - **Supplier**
 - **Department**
 - **Condition** (Good / Obsolete / Damaged)
 - **Asset Status**
 - **Assignment Status** (Assigned / Available)
 - **Warranty Status** (Active / Expiring / Expired)
 - **Date Range** (purchase date)
3. Click **Search** — Results displayed via DataTable

- Each row shows complete stock details with current assignment

16.5 User Activity Logs

Route: `/reports/user-logs`

- Navigate to **Reports** → **User Logs**
 - Filter by:
 - User** (dropdown)
 - Action Type** (dropdown)
 - Date Range**
 - View all logged user actions with timestamps and IP addresses
-

17. User Management

Route: `/users`

Permissions Required: `user-list`, `user-create`, `user-edit`, `user-delete`

17.1 View Users

- Navigate to **Users** from the sidebar
- Super Admin** sees all users
- Other admins** see only non-admin users

17.2 Create User

- Click **Create User**
- Fill in:
 - Name** *(required)*
 - Username** *(required, unique)*
 - Email** *(required, unique)*
 - Employee ID** *(required, unique — links to Employee record)*
 - Role** *(required, dropdown)*
 - Password** *(required, min 6 characters)*
 - Confirm Password** *(required, must match)*
- Click **Save**

Business Rules:

- Non-super-admins **cannot** see or assign the `super-admin` role
- If a user is assigned the `super-admin` role, their `is_admin` flag is set to `1`

17.3 Edit User

- Click **Edit** on a user row
- Update fields (password is optional — leave blank to keep current)
- Change role assignment if needed
- Click **Update**

17.4 Delete User

1. Click **Delete** on a user row
2. Confirm the deletion
3. All roles are revoked before the user is deleted

Restriction: Non-super-admins **cannot** delete users with the super-admin role.

18. Role & Permission Management

Route: `/roles`

Permissions Required: `role-list`, `role-create`, `role-edit`, `role-delete`

18.1 View Roles

1. Navigate to **Roles** from the sidebar
2. All roles are listed **except** the super-admin role (ID 1)

18.2 Create Role

1. Click **Create Role**
2. Enter **Role Name** (*required, unique*)
3. Select **Permissions** — Check individual permissions to grant
4. Click **Save**

Restriction: The name `super-admin` is blocked — it cannot be used for new roles.

18.3 Edit Role

1. Click **Edit** on a role row
2. Update name and/or permissions
3. Click **Update**

Restriction: The super-admin role cannot be edited.

18.4 Delete Role

1. Click **Delete** on a role row
2. Confirm the deletion
3. All permissions are revoked from the role before deletion

Restriction: The super-admin role cannot be deleted.

19. Employee Management (Management Module)

Route: `/management/employees`

Permission Required: `management-all`

This module handles employee offboarding/resignation and product status management.

19.1 Employee Offboarding

1. Navigate to **Management** → **Employees**
2. View list of active employees
3. Click **Edit** on an employee
4. Enter **Date of Resignation** (*required*)
5. Click **Submit**

Automated Offboarding Process: The system automatically:

1. **Closes all active transactions** — Sets **return_date** on every active assignment
2. **Makes all stock available** — Sets **is_assigned** = 2 on all previously assigned items
3. **Updates employee status** — Sets status to **Inactive** (2)
4. **Records resign date** — Saves the date of resignation

Warning: This action processes all active transactions for the employee. Ensure all assets have been physically collected before proceeding.

19.2 Product Status Management

Route: </management/products>

1. Navigate to **Management** → **Products**
2. View all stock items
3. Update the product status for any item:
 - **Active** (1)
 - **Poor** (2)
 - **Damaged** (3)

20. Onboarding Module

Route: </onboarding>

Permissions Required: [onboarding-list](#), [onboarding-create](#)

20.1 View Onboarding

1. Navigate to **Onboarding**
2. View all employees available for onboarding

20.2 Generate Onboarding Form

1. Select an employee
2. Check the equipment to include:
 - ☐ Laptop
 - ☐ Mobile
 - ☐ Pen Drive
 - ☐ Mouse
 - ☐ Camera
 - ☐ Laptop Bag

- ☐ SD Card
 - ☐ Manual
3. Click **Print**
 4. An **Acknowledgement PDF** is generated

20.3 Generate Return Form

1. Select an employee
2. Check the equipment
3. Enable the **Return** option
4. Click **Print**
5. A **Return Form PDF** is generated

21. Data Import

Route: `/imports`

Permissions Required: `imports-list`, `import-create`

21.1 Import Data

1. Navigate to **Imports** from the sidebar
2. Select the **Import Type**:

Import Type	Description
Products	Import product records
Purchase Products	Import purchase product records
Stock (All)	Import complete stock records
Transactions	Import transaction records
Employees	Import employee records

3. Upload a **CSV file** (*CSV format only*)
4. Click **Import**
5. The system processes the file and imports records

Audit: All imports are logged with the import type and user.

21.2 CSV File Requirements

Each import type expects specific column headers matching the model's fillable fields. Refer to the corresponding Import class for exact column mappings.

22. Settings

22.1 Profile Settings

Route: `/settings/profile`

- 1. Navigate to **Settings** → **Profile**
- 2. Update:
 - **Name**
 - **Profile Photo** (*image file, resized to 400×400*)
- 3. Click **Update Profile**
- 4. Both the User record and linked Employee record are updated

22.2 Password Change

Route: `/settings/password`

- 1. Navigate to **Settings** → **Password**
- 2. Enter:
 - **Current Password** (*required*)
 - **New Password** (*required, min 6 characters*)
 - **Confirm New Password** (*required, must match*)
- 3. Click **Change Password**
- 4. The `must_change_password` flag is cleared upon success

22.3 Policy Print

Route: `/policy-print/{id}`

Permission Required: `system-settings`

- 1. Navigate to a transaction's policy view
- 2. View the policy document associated with the transaction

23. Audit / User Activity Logs

The system maintains a comprehensive audit trail of all user actions.

23.1 What is Logged

Category	Actions Logged
Authentication	Login, Logout
Master Data	Create, Update, Delete of product types, products, stores, statuses, suppliers, departments
Employees	Create, Update, Status change
Purchases	Create, Update, Add to inventory
Inventory	Update, Tag update, Bulk upload
Distribution	Create (issue), Return, Multi-ACK

Category	Actions Logged
Management	Employee offboarding, Product status update
Imports	Data import operations
Settings	Profile update, Password change

23.2 Log Data Captured

Each log entry includes:

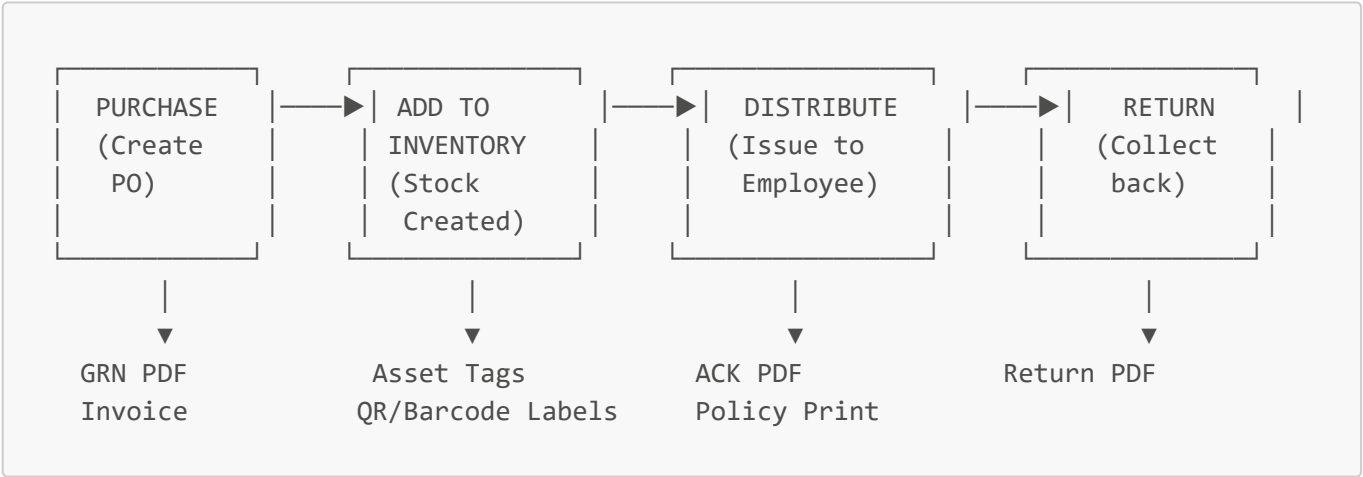
- **User** — Who performed the action
- **Action** — Type of action (e.g., login, create, update, delete)
- **Details** — Descriptive text of what was done
- **IP Address** — Client IP
- **User Agent** — Browser/device information
- **Timestamp** — When the action occurred

23.3 Viewing Logs

See [Section 16.5 — User Activity Logs](#)

24. Key Business Workflows

24.1 Complete Asset Lifecycle



24.2 Purchase to Inventory Workflow

1. **Create Purchase** → Select supplier, add product lines, enter serials/warranty
2. **Purchase Pending** → Review purchase details, generate GRN
3. **Add to Inventory** → For each product line, stocks are created
4. **Asset Tagging** → Auto-generated (if taggable) or manually assigned
5. **Label Generation** → Print QR codes, barcodes, or combo labels
6. **Stock Ready** → Items appear in inventory as "Available"

24.3 Distribution Workflow

1. **Create Distribution** → Select product type > available item > employee
2. **Issue Recorded** → Stock marked as "Assigned", transaction created
3. **Print ACK** → Acknowledgement document generated for signature
4. **Asset in Use** → Stock status reflects current assignment
5. **Return** → Employee returns item, return date recorded
6. **Stock Available** → Item returns to available pool

24.4 Employee Offboarding Workflow

1. **Initiate Offboarding** → Management module > select employee > enter resign date
2. **Auto-Return** → ALL active transactions are closed automatically
3. **Stock Released** → All assigned items become "Available"
4. **Employee Deactivated** → Status set to "Inactive"

24.5 Software License Distribution Workflow

1. **Purchase Software** → Enter total quantity (e.g., 50 licenses)
2. **Add to Inventory** → Single stock record with quantity=50
3. **Distribute** → Each distribution reduces available count
4. **Return** → Available count is restored
5. **Tracking** → System tracks: Total, Assigned, Available at all times

25. Troubleshooting & FAQ

25.1 Common Issues

Issue	Solution
Cannot login	Verify email and password. Check if account exists. Minimum password: 6 characters.
Redirected to password change	Your account has <code>must_change_password</code> flag. Change your password to proceed.
Cannot delete a product type	Remove all associated products first.
Cannot delete a product	Remove all purchase products referencing it first.
Cannot delete a supplier	Remove all purchases for this supplier first.
Cannot delete a department	Reassign or remove all employees in the department.
Cannot delete a store	Reassign all stock items to a different store first.
Cannot delete an asset status	Reassign all stock items to a different status first.
Serial count mismatch	When creating a purchase, the number of serial numbers must match the quantity exactly.

Issue	Solution
Asset tag not generated	Ensure the product has <code>is_taggable</code> checked. Tags are generated during "Add to Inventory".
QR code not rendering	System falls back from PNG to SVG to HTML. Check PHP Imagick extension if PNG fails.
Barcode too long / scaling issues	The system uses adaptive scaling for Code128B based on serial length.
Import fails	Ensure the file is CSV format and column headers match the expected format.
Permission denied	Contact your administrator to verify your role has the required permissions.

25.2 Invoice Number Format

The auto-generated invoice follows the format: `DDMMYYYY-NNN`

- DD = Day (2 digits)
- MM = Month (2 digits)
- YYYY = Year (4 digits)
- NNN = Sequential number (3 digits)

25.3 Asset Tag Format

Auto-generated asset tags follow the format: `{TypePrefix}{5-digit-number}`

- TypePrefix = First letter of the product type name (uppercase)
- Example: `L00001` (Laptop), `M00001` (Monitor), `S00001` (Software)
- The system finds the highest existing number for each prefix and increments

25.4 Stock Assignment Status Codes

Code	Status	Meaning
1	Assigned	Currently assigned to an employee
2	Available	Available for distribution

25.5 Employee Status Codes

Code	Status
1	Active
2	Inactive / Resigned

25.6 Product Condition Codes

Code	Condition
------	-----------

Code	Condition
1	Active (Good)
2	Poor
3	Damaged

26. Appendix — Permission Reference

Complete Permission List (52 Permissions)

#	Permission	Module	Description
1	role-list	Roles	View roles list
2	role-create	Roles	Create new roles
3	role-edit	Roles	Edit existing roles
4	role-delete	Roles	Delete roles
5	user-list	Users	View users list
6	user-create	Users	Create new users
7	user-edit	Users	Edit existing users
8	user-delete	Users	Delete users
9	product-type-list	Product Types	View product types
10	product-type-create	Product Types	Create product types
11	product-type-edit	Product Types	Edit product types
12	product-type-delete	Product Types	Delete product types
13	product-list	Products	View products
14	product-create	Products	Create products
15	product-edit	Products	Edit products
16	product-delete	Products	Delete products
17	store-list	Stores	View stores/locations
18	store-create	Stores	Create stores
19	store-edit	Stores	Edit stores
20	store-delete	Stores	Delete stores
21	status-list	Asset Statuses	View statuses
22	status-create	Asset Statuses	Create statuses
23	status-edit	Asset Statuses	Edit statuses

#	Permission	Module	Description
24	status-delete	Asset Statuses	Delete statuses
25	suppliers-list	Suppliers	View suppliers
26	suppliers-create	Suppliers	Create suppliers
27	suppliers-edit	Suppliers	Edit suppliers
28	suppliers-delete	Suppliers	Delete suppliers
29	purchase-list	Purchases	View purchases
30	purchase-create	Purchases	Create purchases
31	purchase-edit	Purchases	Edit purchases
32	purchase-delete	Purchases	Delete purchases
33	purchase-addinventory	Purchases	Add to inventory (approve)
34	purchase-approve	Purchases	Approve purchases
35	department-list	Departments	View departments
36	department-create	Departments	Create departments
37	department-edit	Departments	Edit departments
38	department-delete	Departments	Delete departments
39	employee-list	Employees	View employees
40	employee-create	Employees	Create employees
41	employee-edit	Employees	Edit employees
42	employee-delete	Employees	Delete employees
43	inventory-list	Inventory	View inventory
44	inventory-create	Inventory	Create inventory
45	inventory-edit	Inventory	Edit inventory
46	inventory-delete	Inventory	Delete inventory
47	inventory-update-tag	Inventory	Update asset tags
48	distribution-list	Distributions	View distributions
49	distribution-create	Distributions	Create distributions
50	distribution-edit	Distributions	Edit distributions
51	distribution-delete	Distributions	Delete distributions
52	distribution-return	Distributions	Process returns
53	report-list	Reports	View reports list

#	Permission	Module	Description
54	report-view	Reports	View report details
55	report-employee	Reports	Employee reports
56	report-product	Reports	Product reports
57	report-distribution	Reports	Distribution reports
58	report-purchase	Reports	Purchase reports
59	report-inventory	Reports	Inventory reports
60	qrcode-generate	QR/Barcode	Generate QR codes
61	qrcode-print	QR/Barcode	Print QR codes
62	barcode-generate	QR/Barcode	Generate barcodes
63	barcode-print	QR/Barcode	Print barcodes
64	imports-list	Imports	View imports page
65	import-create	Imports	Execute imports
66	users-log	System	View user logs
67	user-log-view	System	View log details
68	system-settings	System	System settings access
69	management-all	Management	Full management access
70	onboarding-list	Onboarding	View onboarding
71	onboarding-create	Onboarding	Create onboarding
72	self-view-profile	Self-Service	View own profile
73	self-view-assets	Self-Service	View own assets
74	self-view-transactions	Self-Service	View own transactions

Role — Permission Mapping (Default)

Role	Permissions
Super Admin	All 52+ permissions
Admin	All 52+ permissions
Employee	self-view-profile, self-view-assets, self-view-transactions

End of Document

This SOP should be reviewed and updated whenever significant system changes are made.