**ZOOM**

**Inventory Management System**

Tech Stack (MERN)

# Technicalities:

### Frontend

* React
* Product listing (with filters by brand, category)
* Inventory Managing Control (for the Inventory Module)
* Add to cart/sale (for the e-commerce Module)
* Add service request (for the service Module)
* Dashboard with metrics and alerts
* Role-based access

### Backend

* Node/Express
* CRUD APIs for all collections
* PDF/Invoice generation

### MongoDB Collections

* + users
  + products
  + main\_categories
  + sub\_categories
  + suppliers
  + customers
  + sales
  + purchaseOrders
  + serviceRequest
  + Quotes
  + Rentals (optional)

# Core Features

## 1. User Roles

* **Admin**:
  + Full users operations
  + Full inventory operations
  + Full reporting access
* **Salesperson**:
  + View stock
  + Create invoices (for the e-commerce)
  + Pull Sales Reports
* **Inventory** **Manager**:
  + Handles stock intake
  + Restocking
  + Pull Inventory Reports

## 2. Product Categories

### Cameras:

* + DSLR / Mirrorless
  + Film
  + Instant &bDisposable
  + Action Camera
  + Vintage Camera for Decor

### Lenses:

* + Adapters
  + Lenses
  + Zoom

### Uncategorized

### Accessories:

* + Slider
  + Follow Focus
  + Triggers
  + InstantCameras
  + LCD Protectors
  + Speedlite-modifiers
  + Rotatables
  + Lens Mugs
  + Capture Cards & Video Mixers
  + Cleaning Kit
  + Monitors
  + GOPRO Accessories
  + Projectors, Calibrations & Accuracy
  + Mobile & Action Cam Accessories
  + Filters & Caps
  + Wireless remote, trigger & tether
  + Plates, Cages, Straps & L-Brackets
  + Light Stands
  + Tripods & Heads
  + Grips, Batteries & Charger
  + Bags & Cases
  + Photo – Video Props
  + Brackets & Connectors
  + Wires, Adapters & Cables
  + Memory & Storage
  + Filters

### Lights:

* + Modifiers
  + Studio Flash
  + Wireless Flash
  + On Camera LED
  + Ringlighs & Vlogging
  + Speedlite
  + LED Tubes / LED Sticks
  + LED Panels
  + LED Strobes
  + LED lights / Flash lights
  + Strobes & Continuous lights

### Studio Gear:

* + Umbrellas
  + Softboxes
  + Backdrops

### Gimbals:

* + Camera Gimbals
  + Phone Gimbals
  + Accessories

### Audio:

* + Intercoms
  + USB Microphones
  + Audio Recorder
  + On Camera Mics
  + Wired Mics
  + Microphones
  + Accessories
  + Wireless Microphones

## 3. Inventory Tracking

* + SKU/Barcode per item
  + Quantity in stock
  + Cost price & selling price
  + Warranty info

## 4. Supplier Management Module:

* + Track multiple suppliers per item
  + Purchase orders

## 5. Sales Management Module:

* + Sales deduct stock
  + Log customer info
  + Generate receipts/invoices
  + Create quotations (generate PDF file, send through email or whatsApp)
  + Follow up with quotations

## 6. Services Module

* Create Service Request
* Update/Close Service Request
* Schedule follow up alerts
* Track Service Request

# Advanced Features

## Enable Mobile Version

## Rental Module

* + Track rented items
  + Rental periods, deposits
  + Auto-alerts for overdue returns

## Low Stock & Expiry Alerts

* + Get alerts on batteries, cleaning kits, film rolls nearing expiry or low stock

## Reports

* + Top selling items
  + Inventory value
  + Profit margins
  + Supplier performance

## Warranty Tracker

* + Warranty expiration per item
  + Link to customer record

# ERD & Schema Design:

|  |  |
| --- | --- |
| products | |
| PK | * (PK) id |
|  | * Name |
|  | * Selling Price |
|  | * Buying Price |
|  | * Key Features |
|  | * Status [in-stock, out-of-stock, pre-order] |
|  | * Quantity Available |
|  | * Inventory Minimum Balance |
|  | * SKU |
|  | * Tags |
|  | * Pictures |
|  | * Options |
| FK | * (F.K) Category |
| FK | * (F.K) Supplier |
| FK | * (F.K) Entered By |

|  |  |
| --- | --- |
| users | |
| PK | * (P.K) id |
|  | * Name |
|  | * Email |
|  | * Password |
|  | * User-Role [Admin, Salesperson, Inventory Staff] |
|  | * Status [Active, Inactive] |

|  |  |
| --- | --- |
| main-categories | |
| PK | * (P.K) id |
|  | * Name |

|  |  |
| --- | --- |
| sub\_categories | |
| PK | * (P.K) id |
|  | * Name |
| FK | * (F.K) MainCategory |

|  |  |
| --- | --- |
| suppliers | |
| PK | * (P.K) id |
|  | * Name |
|  | * Address |
|  | * Phone |
|  | * Fax |
|  | * Email |
| FK | * (F.K) Product |

|  |  |
| --- | --- |
| customers | |
| PK | * (P.K) id |
|  | * Name |
|  | * Address |
|  | * Phone |
|  | * Mobile |
|  | * Email |
| FK | * (F.K) Entered by |

|  |  |
| --- | --- |
| sales: | |
| PK | * (P.K) id |
|  | * Description: |
|  | * Product |
|  | * Quantity |
|  | * Price |
|  | * Total Price |
|  | * Discount |
| FK | * (F.K) Customer |
| FK | * (F.K) Salesperson |

|  |  |
| --- | --- |
| purchase\_orders | |
| PK | * (P.K) id |
|  | * Description |
|  | * Products |
|  | * Quantity |
|  | * Unit Price |
|  | * Total Price |
|  | * Discount |
|  | * Status |
| FK | * (F.K) Supplier |
| FK | * (F.K) Inventory Staff |

|  |  |
| --- | --- |
| service\_requests | |
| PK | * (P.K) id |
| FK | * (F.K) customer |
|  | * Issue Details |
|  | * Due Date |
|  | * Follow up Description |
| FK | * (F.K) salesperson |

## quotations

* (P.K) id

## Rentals (optional)

* (P.K) id

# ERD

