

## Warehouse Management Web and Mobil Apps

Monster Company needs to reduce human error in warehouse management, To ensure the inventory automation process is correct, you can follow the flow outlined below. This flow emphasizes accuracy and efficiency in managing inventory using an automated system:

- Set up the Inventory Management System:
  - Develop a simple warehouse management web application supported by Label Printer and Portable Android Base Barcode Scanner.
  - Configure the system by inputting product information, such as SKUs, Product Code, Descriptions, Size, variants, colors and Case Quantity.'
- Set up the Storage Management
  - Configure system by inputting Storage Unit and Rack units, Storage units can be Variable such as Multi Layer Racks, Multi Boxes Cartoon, and individual Storage units.
  - Each of this Storage will be marked and tagged and placed in designated area marked on the system.
- Barcode or RFID Tagging:
  - WMS must be able to Generate & Assign unique barcodes or QR Code tags to each product to enable accurate tracking and identification.
  - WMS must also able to accept product original Barcode and Details
  - Label all storage locations (shelves, bins, etc.) with corresponding barcodes or RFID tags.
- Receive New Inventory & Adjustment:
  - When new inventory arrives, scan barcodes or RFID tags or Create QR Code on the products using handheld devices or scanners and label printer connected to the IMS/WMS.
  - The system should automatically update the inventory levels, location details, and any other relevant information.
- Pick and Pack Orders:
  - When an order is received through E-Commerce, the IMS/WMS should generate picking lists or work orders based on the order details.
  - Warehouse personnel can use handheld devices or scanners to scan the barcodes or RFID tags of the products as they are picked from the appropriate storage locations.
  - The system should validate the picked items against the order details, ensuring accuracy.
- Inventory Adjustments / Quality Control:
  - If there are any discrepancies during the picking process (e.g., damaged items, missing products), initiate inventory adjustments in the IMS/WMS to reflect the changes accurately.
  - Include proper documentation and approval processes for any adjustments made.
- **Shipping & Tracking: → Might be quite hard since we need to ship labels using approved Shipping.**
  - Generate shipping labels and packing slips using the IMS/WMS, ensuring accurate customer and shipping information.
  - Assign tracking numbers to packages and update the information in the system.
  - Integrate the IMS/WMS with shipping carriers' APIs for real-time tracking updates.
- Return and Refund Management:
  - Establish a clear process for handling returns and refunds, which includes scanning returned items back into the system and updating inventory levels accordingly.
  - Initiate refund processes and update relevant financial records within the IMS/WMS.
- Regular Audits and Cycle Counts:
  - Conduct periodic audits and cycle counts to reconcile physical inventory with the data in the IMS/WMS.
  - Use handheld devices or scanners to scan barcodes or RFID tags during the auditing process.
  - Investigate and resolve any discrepancies discovered during the audit.
- Reporting and Analytics:
  - Utilize the reporting and analytics capabilities of the IMS/WMS to monitor key inventory metrics, such as stock levels, turnover rates, and accuracy rates.
  - Analyse the data to identify trends, potential errors, and areas for improvement.
- Continuous Improvement:
  - Regularly review the inventory automation process, gather feedback from warehouse staff, and make necessary adjustments to enhance accuracy and efficiency.
  - Stay updated with advancements in inventory management technology and consider integrating new features or tools that can further optimize the automation process.

By following this flow and continually monitoring and improving the inventory automation process, you can ensure a more accurate and efficient management of your inventory.

### Storage Management

To effectively manage a certain storage area and ensure products are placed in the proper manner, consider the following steps:

- **Define Storage Layout:** Determine the optimal layout and organization of the storage area. This includes deciding on the arrangement of shelves, racks, bins, or pallets based on factors such as product size, weight, and accessibility.
- **Categorize Products:** Group products based on common characteristics such as product type, category, size, or any other relevant criteria. This helps in assigning specific storage locations and streamlining the retrieval process.
- **Assign Storage Locations:** Allocate dedicated storage locations for each product category or SKU. Label each storage location clearly with unique identifiers, such as numbers, letters, or barcode/QR code labels. Ensure that the labels are visible and scannable.
- **Standardize Placement Guidelines:** Establish clear guidelines on how products should be placed within their designated storage locations. This may include orientation (e.g., facing forward), stacking limits, or any specific considerations based on the nature of the product (e.g., fragile items, temperature-sensitive goods).
- **QR code labels to validate product locations or using automated systems to monitor inventory accuracy.**
- **Utilize Warehouse Management Systems (WMS):** Implement a WMS or inventory management software that provides real-time visibility of product locations and storage utilization. This system can assist in tracking inventory movements, generating reports, and optimizing storage allocation.
- **Implement FIFO or LIFO Method:** Depending on the nature of the products (e.g., perishable goods), consider implementing a First-In, First-Out (FIFO) or Last-In, First-Out (LIFO) method to ensure proper rotation and minimize product spoilage or obsolescence.

**Continuous Improvement:** Encourage feedback from warehouse staff and regularly review storage management processes to identify areas for improvement. Solicit suggestions for optimizing storage layouts, labelling systems, or any other aspects related to product placement.

### Target to Achieve during WMS Implementation.

When it comes to storage management for products using barcodes or QR codes, the primary focus is on efficient tracking, organization, and retrieval of items within the storage facility. Here are some key considerations:

1. **Barcode or QR Code Labelling:** Affix unique barcode or QR code labels to each product or its packaging. These labels should contain the necessary information for identification and tracking, such as the product code or SKU.
2. **Storage Location Labelling:** Assign unique barcode or QR code labels to storage locations, such as shelves, bins, or pallets. These labels should be clearly visible and scannable to ensure accurate identification of the storage location.
3. **Barcode or QR Code Scanning:** Utilize barcode scanners or mobile devices with scanning capabilities to scan both the product and storage location labels. This allows for real-time updates and tracking of product movements and inventory levels.
4. **Warehouse Management System (WMS) Integration:** Integrate the barcode or QR code scanning process with a Warehouse Management System (WMS). The WMS can capture and store the scanned data, providing a centralized system for inventory management and storage location tracking.
5. **Inventory Receiving:** Scan the product labels upon receipt and associate them with the corresponding storage locations. This allows for accurate inventory tracking and simplifies the process of locating products within the storage facility.
6. **Storage Allocation:** Use the WMS to assign storage locations to products based on predetermined rules, such as product characteristics, demand, or storage capacity. The WMS can optimize storage space utilization and facilitate efficient product retrieval.
7. **Stock Movement Tracking:** Scan the product labels when moving items within the storage facility. This includes transferring products between storage locations, picking items for orders, or returning products to stock. The WMS should update the product's location information accordingly.
8. **Inventory Audits and Cycle Counts:** Conduct regular inventory audits and cycle counts by scanning the product labels to verify the accuracy of stock levels. Any discrepancies between the scanned data and the WMS should be identified and resolved.


9. Reporting and Analytics: Utilize the data captured through barcode or QR code scanning to generate reports and gain insights into inventory levels, storage utilization, and movement patterns. This information can assist in making data-driven decisions to optimize storage management.
10. Training and Standard Operating Procedures: Train warehouse personnel on proper barcode or QR code scanning techniques and establish clear standard operating procedures (SOPs) for storage management. This ensures consistency and accuracy in the scanning process.

By implementing barcode or QR code scanning for storage management, you can enhance inventory accuracy, reduce errors, and improve overall efficiency in locating and managing products within the storage facility

Target Work Flow from Ecommerce Order;

Once we received order from Ecommerce we work up the WMS with the following steps;

- **Step 1 [ Sales Admin - SA ]**  
Order from Ecommerce – [MC] Check Stock through WMS- Accept Order – [MC] Copy Paste Invoice, Buyer, Phone, Address, Item list by SKU [ SUBMIT ] become Pick list that will be shown in Mobile Apps.
- **Step 2 [ Warehouse - LOG ]**  
LOG will start looking at items based on PICK LIST generated by SA [ this part LOG Needs to register / scan / type Serial Number or Expiry or batch id based on the picked Item – Complete PICK LIST be passed to QC & Packaging Prepare – Device will be station in Holder to record Packing Process.
- **Step 3 [ Job Finish – OB ]**  
OB awaits Shipping to Pick Up or Deliver to Designated Agent, OB will scan AWB take photo to FINISH the JOB.



**Shopee** **ECO** **ShopeeXpress**

**AE-17** **MLG-A-12** Resi:SPXID033816578145

Penerima: [Redacted] Pengirim: Monster Company  
62815606896  
KOTA JAYA KARTA UTARA

**Shipping ID to scan**

KOTA MALANG KLOJEN Bareng

Berat: 300 gr COD: Rp0  
Batas Kirim: 19-05-2023  
No. Pesanan: 230516TX4W5TJN


RTS-PJR-01  
MLG-A-12

Order ID to scan

#	Nama Produk	SKU	Variasi	Qty
1	Hand Grip Oury Single Compound	HG-OURYV2- Black BK		1

Pesan: (230516TX4W5TJN)

SKU for pick list



**tokopedia** Invoice No ==> INV/20230514/MPL/3232480889

Shipping ==> **TKSC-00002WG6X5**

SICepat GOKIL Berat: 7.269 Kg Ongkir: Rp.60.000

Penerima: Joko Wahyono (628\*\*\*\*\*999)  
Ijen Nirwana Residence, Cluster Green Trees, Blok F1 No.9  
Klojen, Kota Malang, Jawa Timur, 65116

Pengirim: Reptizoo Indonesia (628\*\*\*\*\*896)  
Penjaringan, Kota Administrasi Jakarta Utara, DKI Jakarta, 14450

**Non Tunai** Penjual tidak perlu bayar apapun ke kurir

Produk	SKU	Varian	Jumlah
Monstera Lampu Reptil UVA UVB 3.0 25 Watt Penghangat Kura Tortoise	MS-25W		4 pcs
Reptizoo Light Dome 5,5" UVA 75W - Fitting Lamp	RL04	RL04	1 pc
Deluxe Complete Turtle Enclosure Aquarium Tank Kandang Kura XL	TBOX-XORE	Orange	1 pc

**PICK LIST SKU**

INV/20230514/MPL/3232480889

Device Target;  
Urovo DT-40 Android 8.0  
Urovo U2 5.0  
Real Me Mobile Phone