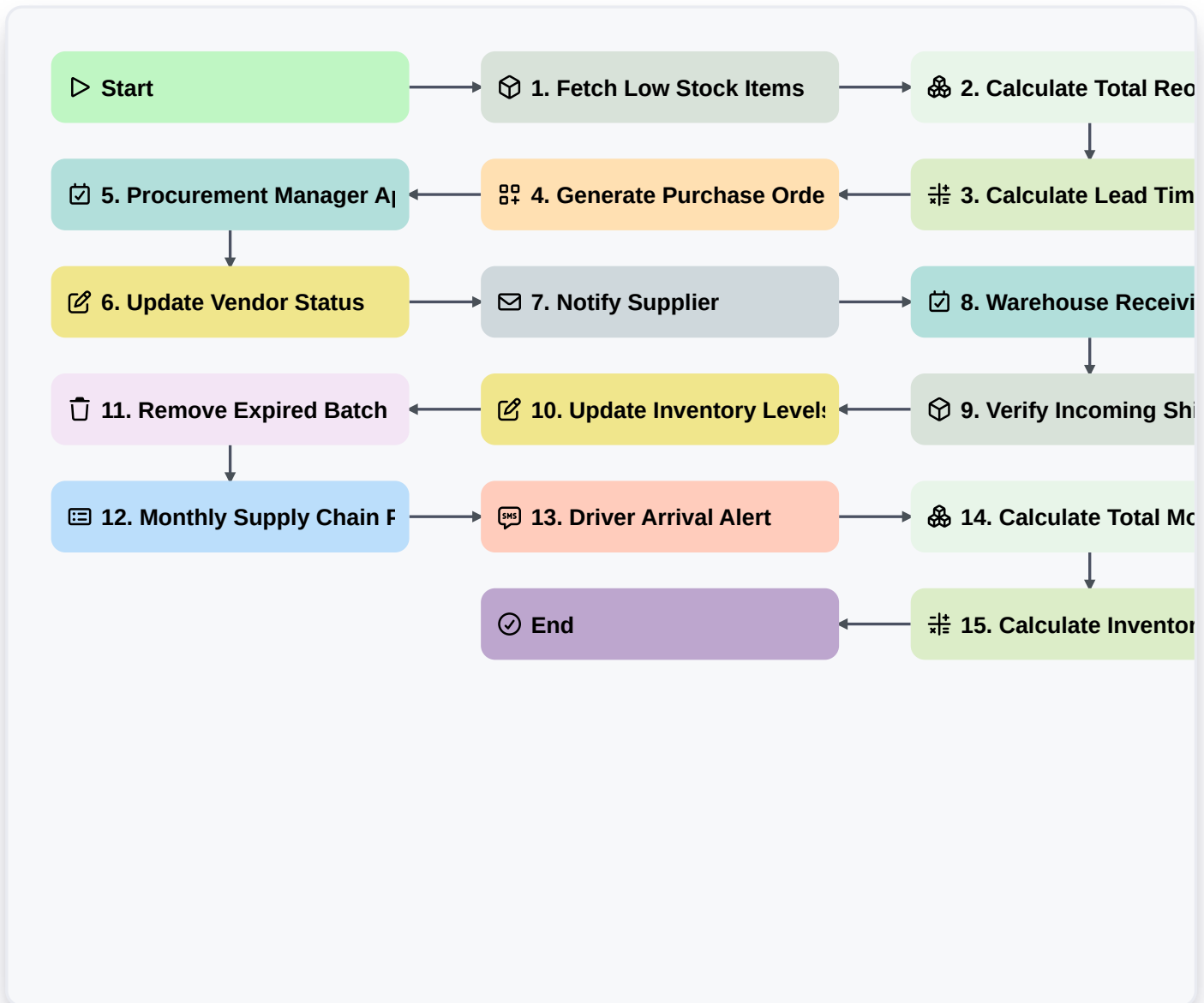


Retail Supply Chain Management



Start

Start of the Workflow/Process.

1. Fetch Low Stock Items

Retrieve all entries from the Inventory Data Model where current stock is below the reorder point.

2. Calculate Total Reorder Value

Sum the total cost of all identified low stock items to determine the required budget.

3. Calculate Lead Time Forecast

Calculate the expected arrival date by adding the vendor lead time to the current date.

4. Generate Purchase Order

Create a new entry in the Purchase Order Data Model based on the low stock identified.

5. Procurement Manager Approval

Assign a task to the Procurement Manager to review and approve the newly created Purchase Order.

6. Update Vendor Status

Update the 'Last Ordered' timestamp in the Vendor Data Model.



7. Notify Supplier

Send an automated email to the Vendor's contact email with the Purchase Order details attached.

8. Warehouse Receiving Task

Create a task for the Warehouse Team to prepare for incoming shipment arrival.

9. Verify Incoming Shipment

Retrieve the original Purchase Order data to compare against arriving physical goods.

10. Update Inventory Levels

Update the quantity on hand in the Inventory Data Model once goods are marked as received.

11. Remove Expired Batch

Delete or archive entries from the Perishable Goods Data Model that have passed their expiry date.

12. Monthly Supply Chain Performance Report

Generate a summary report showing supplier accuracy, lead time deviations, and stockout incidents.

13. Driver Arrival Alert

Send an SMS to the Warehouse Manager when the delivery truck is within 5km of the facility.

14. Calculate Total Monthly Spend

Aggregate the total value of all completed Purchase Orders for the current month.

15. Calculate Inventory Turnover Ratio

Execute formula: $(\text{Cost of Goods Sold} / \text{Average Inventory})$ to assess stock efficiency.

End

End of the Workflow/Process.