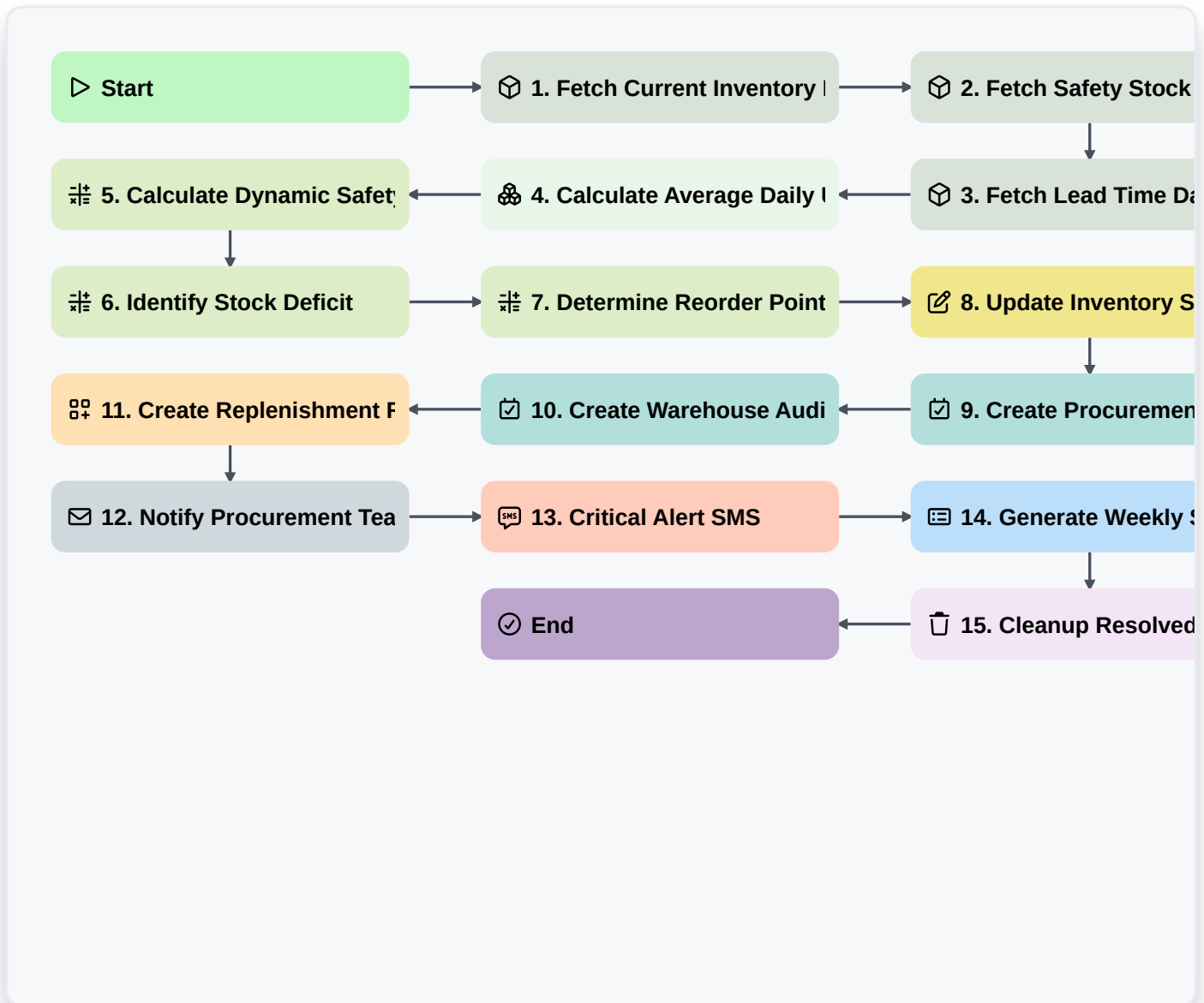


Safety Stock Level Monitoring Process



Start

Start of the Workflow/Process.

1. Fetch Current Inventory Levels

Retrieve the current stock levels for all items in the Inventory data model.

2. Fetch Safety Stock Thresholds

Retrieve the predefined minimum safety stock levels for each item.

3. Fetch Lead Time Data

Retrieve the average lead time per supplier from the Supply Chain data model.

4. Calculate Average Daily Usage

Aggregate historical sales/usage data to find the average units consumed per day.

5. Calculate Dynamic Safety Stock Target

Execute formula: $(\text{Max Lead Time} * \text{Max Daily Usage}) - (\text{Avg Lead Time} * \text{Avg Daily Usage})$.

6. Identify Stock Deficit

Calculate the difference between the Safety Stock Target and the Current Inventory Level.



7. Determine Reorder Point

Calculate: (Average Daily Usage * Lead Time) + Safety Stock Level.

8. Update Inventory Status

Update the 'Status' field of the item to 'Critical' or 'Low Stock' if levels fall below threshold.

9. Create Procurement Task

Create a task for the Purchasing Manager to initiate a replenishment order for items below the Reorder Point.

10. Create Warehouse Audit Task

Create a task for the Warehouse Supervisor to perform a physical count if a discrepancy is detected.

11. Create Replenishment Request

Create a new entry in the 'Purchase Requisition' data model for the identified items.

12. Notify Procurement Team

Send an email alert to the procurement department with a summary of items requiring immediate reorder.

13. Critical Alert SMS

Send an SMS to the Warehouse Manager if stock levels hit 'Zero' or 'Emergency' levels.

14. Generate Weekly Stock Health Report

Create a summary report showing all items currently below safety levels and total value of stock at risk.

15. Cleanup Resolved Alerts

Delete or archive old 'Stock Alert' entries that have been addressed by replenishment.

End

End of the Workflow/Process.