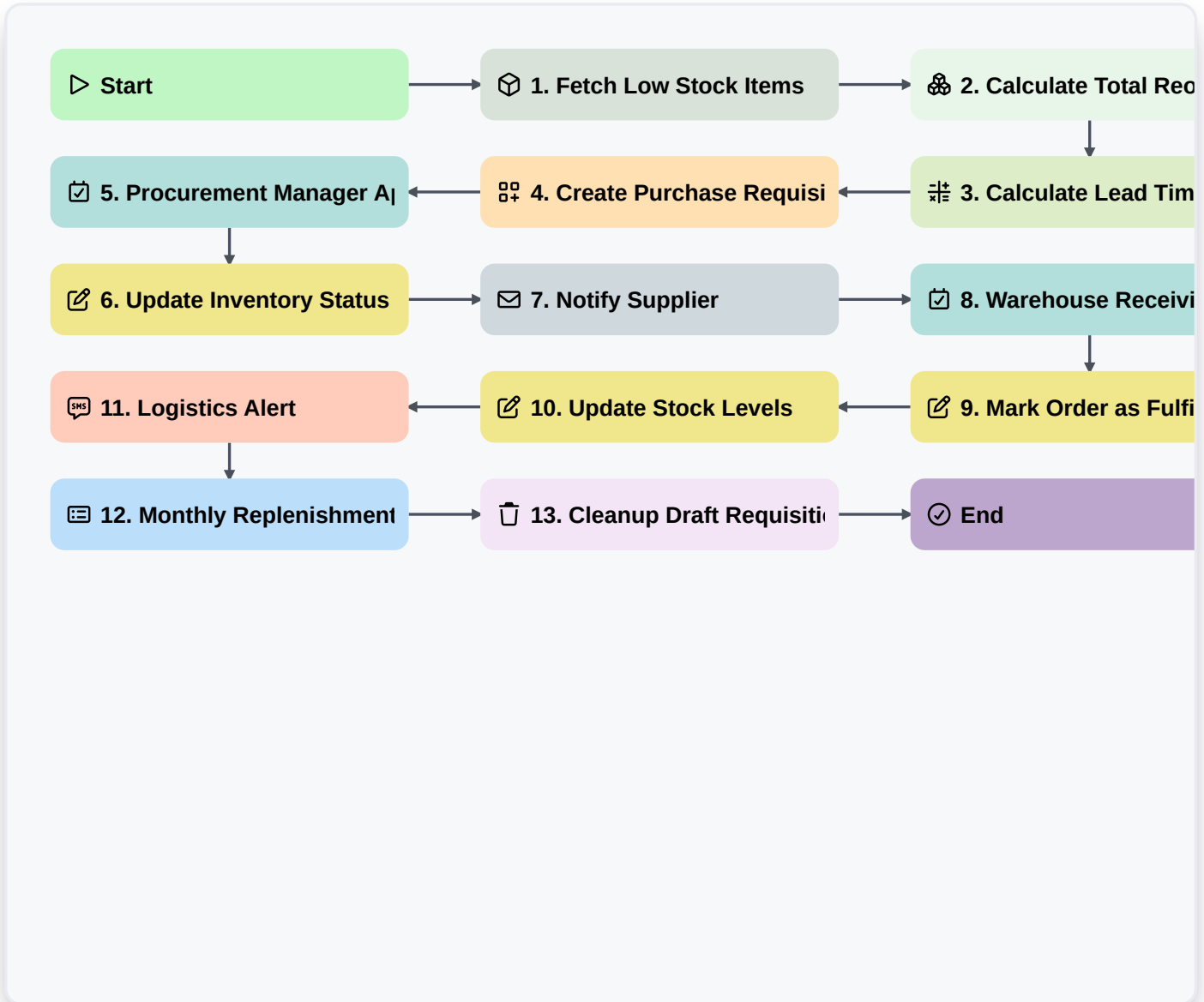


Supply Chain Inventory Replenishment Workflow



▷ **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 defined reorder point.

 **2. Calculate Total Reorder Value**

Sum the total cost of all retrieved low-stock items to determine the required budget for replenishment.

 **3. Calculate Lead Time Buffer**

Calculate the safety stock level by adding the average lead time to the current stock volatility.

 **4. Create Purchase Requisition**

Generate a new entry in the Purchase Orders Data Model for the identified low-stock items.

 **5. Procurement Manager Approval**

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



6. Update Inventory Status

Update the 'Status' field of the original Inventory entries to 'Reorder in Progress' to prevent duplicate orders.

7. Notify Supplier

Send an automated email to the selected Vendor containing the Purchase Requisition details.

8. Warehouse Receiving Task

Create a task for the Warehouse Clerk to verify goods upon their physical arrival.

9. Mark Order as Fulfilled

Update the Purchase Requisition entry status to 'Fulfilled' once the receiving task is completed.

10. Update Stock Levels

Increment the 'Quantity on Hand' in the Inventory Data Model based on the received quantity.

11. Logistics Alert

Send an SMS to the Logistics Lead if the replenishment value exceeds a specific high-cost threshold.

12. Monthly Replenishment Report

Generate a summary report of all replenishment cycles, costs, and lead time performance for the month.

13. Cleanup Draft Requisitions

Delete any expired or unapproved draft entries in the Purchase Requisition model to maintain data hygiene.

End

End of the Workflow/Process.