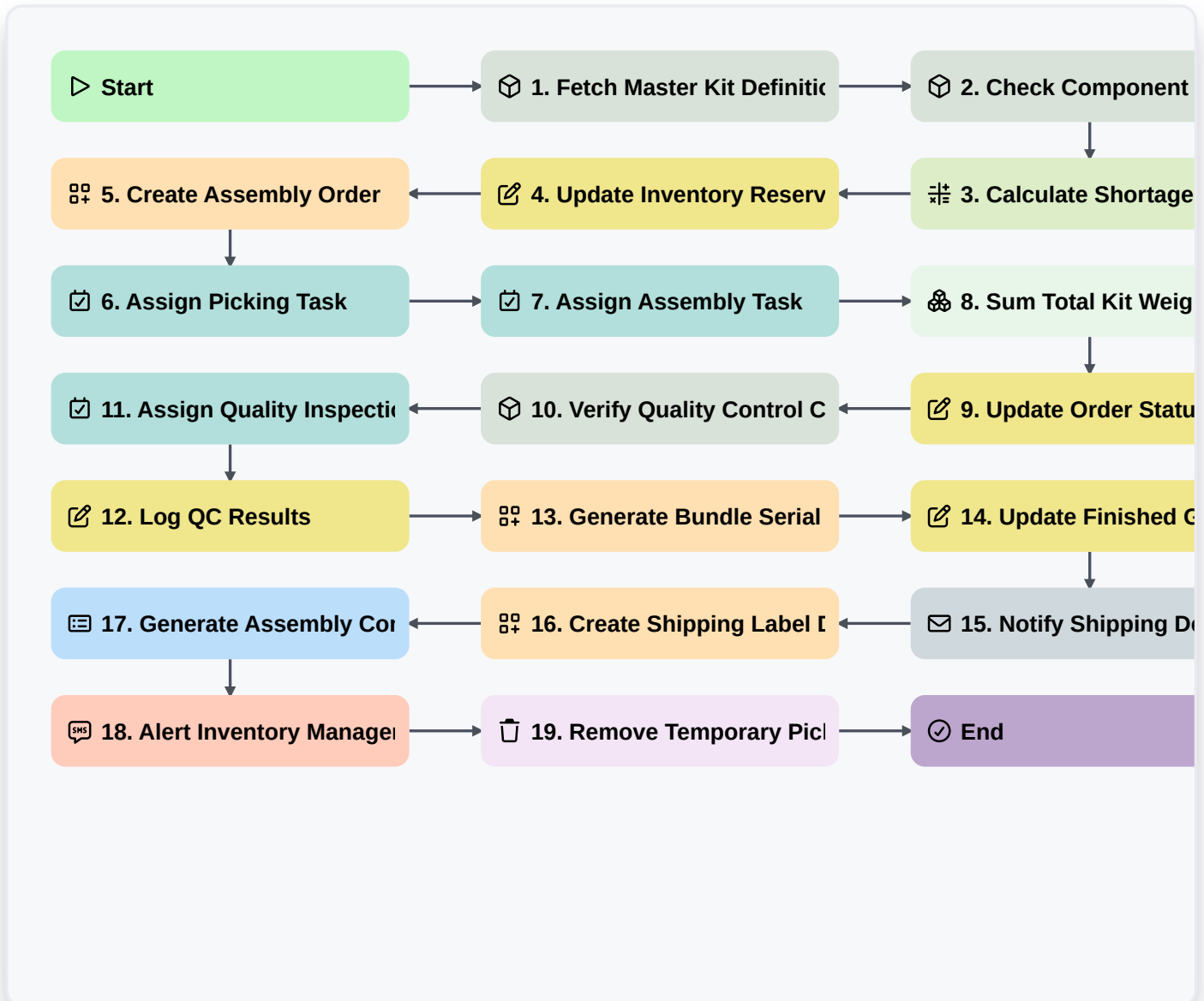


Kit Assembly And Bundle Management Workflow



Start

Start of the Workflow/Process.

1. Fetch Master Kit Definition

Retrieve the master kit template from the Kit Models data model to identify required components.

2. Check Component Inventory

Retrieve current stock levels for all parts listed in the Kit Definition.

3. Calculate Shortage Quantity

Calculate the difference between required quantity and available inventory for each component.

4. Update Inventory Reservation

Update the status of specific component entries to 'Reserved' to prevent double-allocation.

5. Create Assembly Order

Create a new entry in the Assembly Orders data model to initiate the physical assembly process.



6. Assign Picking Task

Create a task for the Warehouse Operator to pick the required components from the shelves.

7. Assign Assembly Task

Create a task for the Technician to physically assemble the kit based on the checklist.

8. Sum Total Kit Weight

Aggregate the weights of all individual components to determine the total shipping weight of the bundle.

9. Update Order Status to 'In Assembly'

Update the Assembly Order entry status to reflect that work has commenced.

10. Verify Quality Control Checklist

Retrieve the predefined QC checklist associated with the specific Kit Type.

11. Assign Quality Inspection

Create a task for the QC Manager to verify the completed bundle against the checklist.

12. Log QC Results

Update the Assembly Order entry with the pass/fail result from the inspection.

13. Generate Bundle Serial Number

Create a unique serial number entry for the newly completed bundle for traceability.

14. Update Finished Goods Inventory

Update the Finished Goods data model to increase the count of the completed Kit bundle.

15. Notify Shipping Department

Send an email to the logistics team notifying them that the bundle is ready for packing and dispatch.

16. Create Shipping Label Data

Create a new entry in the Shipping Manifest data model for the completed bundle.

17. Generate Assembly Completion Report

Create a summary report detailing the time taken, components used, and QC results for the session.

18. Alert Inventory Manager of Low Stock

Send an SMS to the manager if the component shortage calculation exceeds a specific threshold.

19. Remove Temporary Pick List

Delete the temporary pick list entry once the picking task is marked as complete.

End

End of the Workflow/Process.