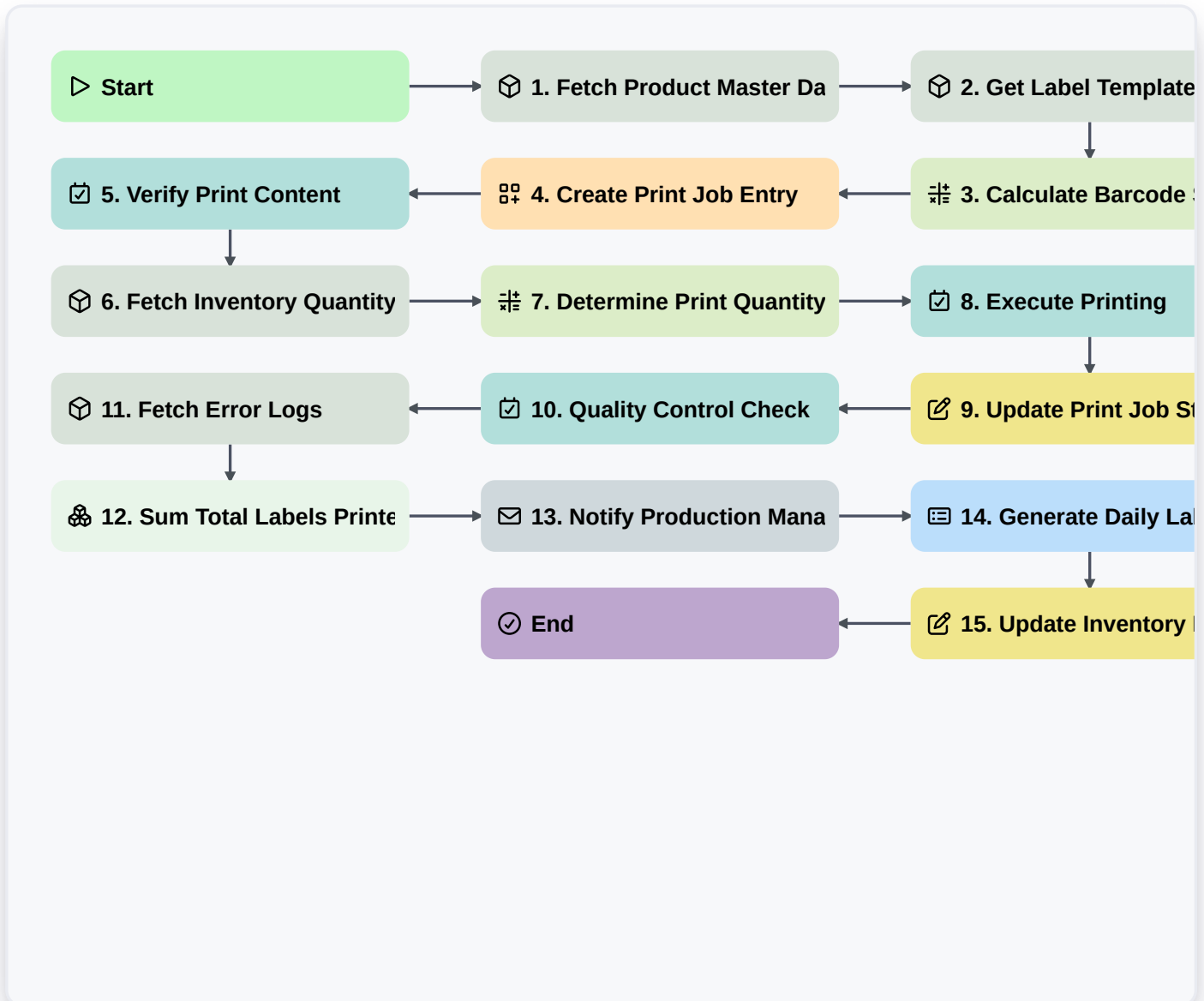


# Label Printing And Barcode Management Process



## ▶ Start

Start of the Workflow/Process.

## 📦 1. Fetch Product Master Data

Retrieve product details, dimensions, and SKU information from the Product Data Model.

## 📦 2. Get Label Template Settings

Retrieve the required label dimensions and barcode symbology (e.g., Code 128, QR) from the Template Configuration model.

## 🔢 3. Calculate Barcode String

Combine SKU, Batch Number, and Expiry Date into a single concatenated string for the barcode content.

## 📄 4. Create Print Job Entry

Create a new record in the 'Print Jobs' data model containing the payload and timestamp.

## ✅ 5. Verify Print Content

Assign a task to the Warehouse Supervisor to review the digital preview of the label content before printing.



## **6. Fetch Inventory Quantity**

Retrieve the current stock level to determine how many labels need to be printed.

## **7. Determine Print Quantity**

Calculate the total number of labels needed based on the product batch size.

## **8. Execute Printing**

Assign a task to the Operator to trigger the physical printer and monitor the print run.

## **9. Update Print Job Status**

Update the 'Print Job' entry to 'Completed' once the physical print is successful.

## **10. Quality Control Check**

Assign a task to the QC Agent to scan a sample of printed labels to ensure readability and data accuracy.

## **11. Fetch Error Logs**

Retrieve any recent printer error logs to check for hardware issues.

## **12. Sum Total Labels Printed**

Aggregate the total number of labels printed across all jobs in the current shift for reporting.

## **13. Notify Production Manager**

Send an email notification to the manager if a Print Job fails or a QC error is detected.

## **14. Generate Daily Label Usage Report**

Create a summary report of all print jobs, quantities, and errors processed during the day.

## **15. Update Inventory Labels**

Update the 'Labels Used' counter in the Material Inventory model to reflect stock consumption.

## **End**

End of the Workflow/Process.