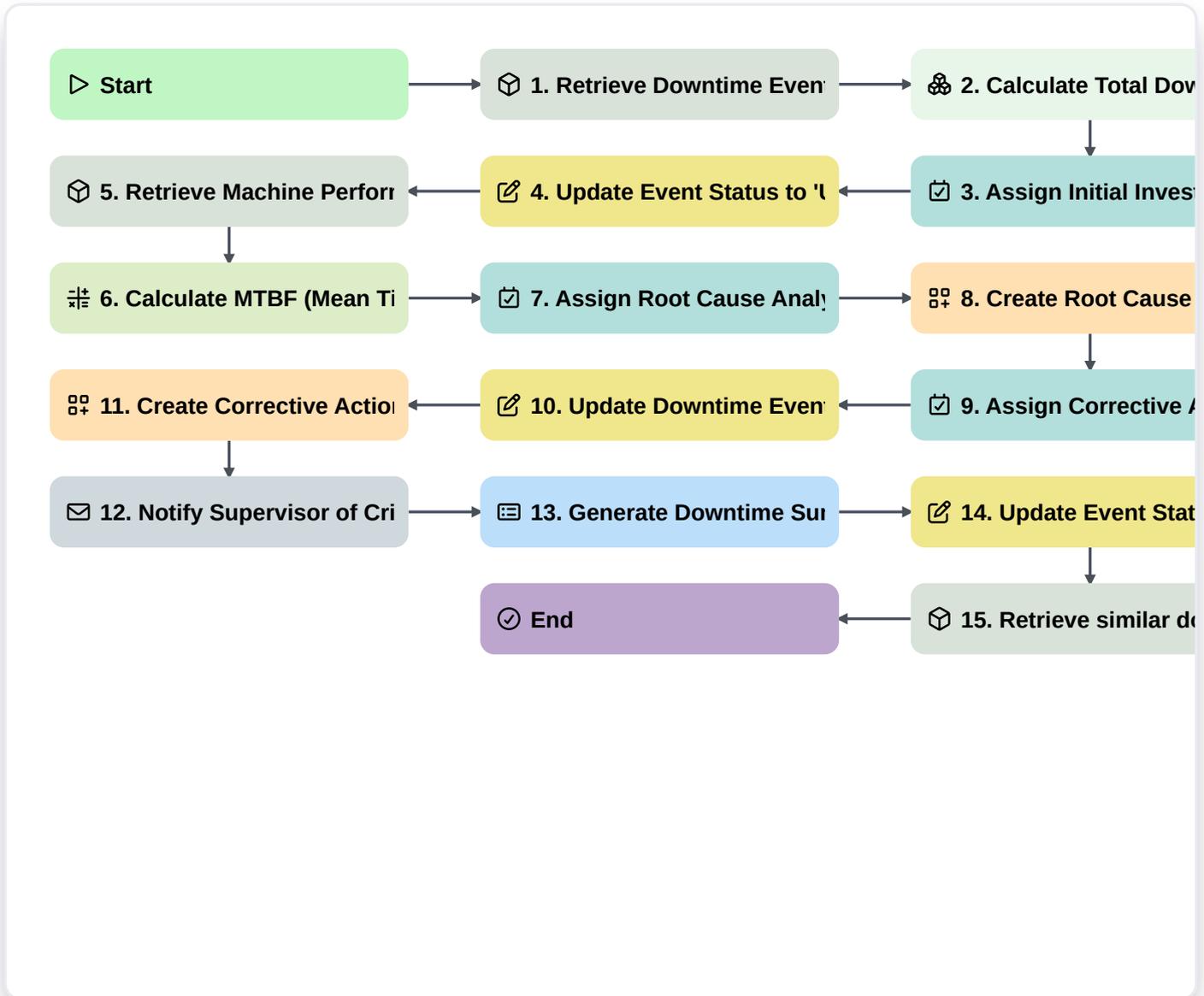


Production Line Downtime Analysis Workflow



Start

Start of the Workflow/Process.

1. Retrieve Downtime Event Records

Fetch all downtime event records from the past 24 hours, including timestamp, line ID, and reason code.

2. Calculate Total Downtime per Line

Aggregate downtime event records, calculating the total downtime (in minutes) for each production line.

3. Assign Initial Investigation Task

Create a task assigned to the maintenance technician to begin initial investigation of lines with > 15 minutes downtime.

4. Update Event Status to 'Under Investigation'

Update the status of downtime events on lines flagged for investigation to 'Under Investigation'.

5. Retrieve Machine Performance Data

Get recent performance data (speed, temperature, error codes) for machines experiencing downtime.

6. Calculate MTBF (Mean Time Between Failures)

Calculate MTBF for affected machines using historical downtime data.

7. Assign Root Cause Analysis Task

Create a task for an engineer to perform root cause analysis if downtime exceeds a threshold (e.g., 30 minutes).

8. Create Root Cause Entry

Create an entry in the Root Cause data model, capturing the engineer's findings.

9. Assign Corrective Action Task

Create a task for the responsible team to implement corrective actions based on the root cause analysis.

10. Update Downtime Event with Root Cause

Update the downtime event record with the identified root cause.

11. Create Corrective Action Plan Entry

Create an entry in the Corrective Action Plan data model outlining the steps to prevent recurrence.

12. Notify Supervisor of Critical Downtime

Send an email to the production supervisor for downtime events exceeding a critical threshold (e.g., 1 hour).

13. Generate Downtime Summary Report

Create a report summarizing downtime events for the past week, including lines affected, reasons, and corrective actions.

14. Update Event Status to 'Resolved'

Update the status of downtime event to 'Resolved' after corrective actions are completed.

15. Retrieve similar downtime events

Get a list of similar downtime events in the past to compare the root cause and preventative action

End

Start of the Workflow/Process.