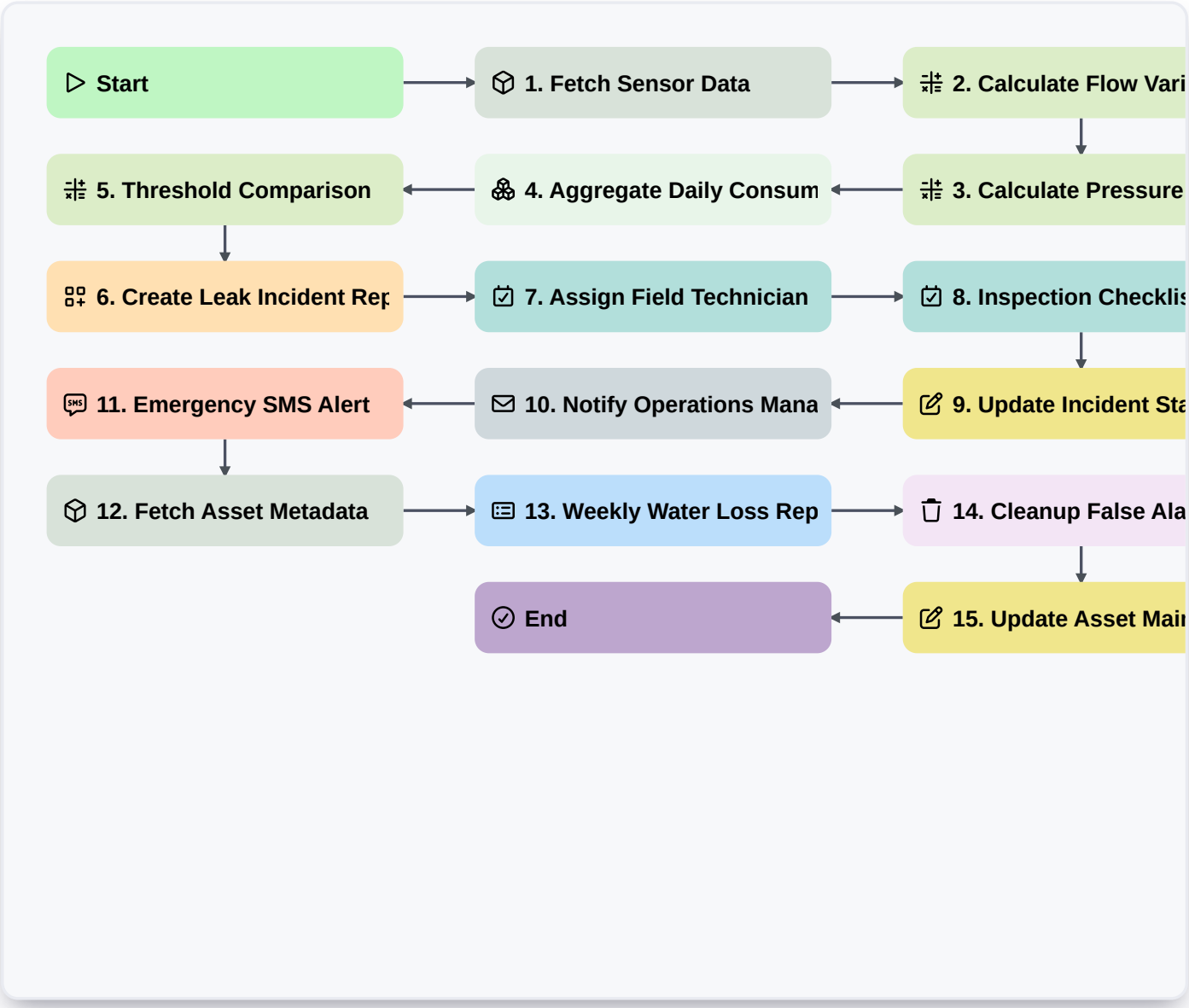
ChecklistGuro

Water Management And Leak Detection Process



Start
Start of the Workflow/Process.

1. Fetch Sensor Data
Retrieve recent flow rate and pressure readings from the Water Meter Data Model.

2. Calculate Flow Variance
Compare current flow rate against the historical baseline to identify deviations.

3. Calculate Pressure Drop
Determine the difference between upstream and downstream pressure to detect potential leaks.

4. Aggregate Daily Consumption
Sum the total water volume recorded across all sensors for the last 24-hour period.

5. Threshold Comparison
Evaluate if the calculated variance or pressure drop exceeds the predefined safety thresholds.

6. Create Leak Incident Report
Generate a new entry in the 'Leak Incidents' data model when a threshold breach is detected.

7. Assign Field Technician
Create a task for the maintenance team to perform an on-site physical inspection.

8. Inspection Checklist
A set of steps for the technician to verify pipe integrity, valve status, and visible moisture.

9. Update Incident Status
Update the 'Leak Incident' entry status to 'Investigating' or 'Resolved' based on task completion.

10. Notify Operations Manager
Send an automated email alert to the Operations Manager regarding the detected anomaly.

11. Emergency SMS Alert
Send an urgent SMS to the on-call technician if a high-pressure burst is detected.

12. Fetch Asset Metadata
Retrieve pipe material and age information from the Asset Data Model to assess risk.

13. Weekly Water Loss Report
Generate a summary report of all detected leaks and repair costs for the weekly management review.

14. Cleanup False Alarms
Delete temporary anomaly entries that were flagged incorrectly by sensor noise.

15. Update Asset Maintenance Log
Update the 'Asset Data Model' to reflect the most recent repair date and maintenance notes.

End
End of the Workflow/Process.