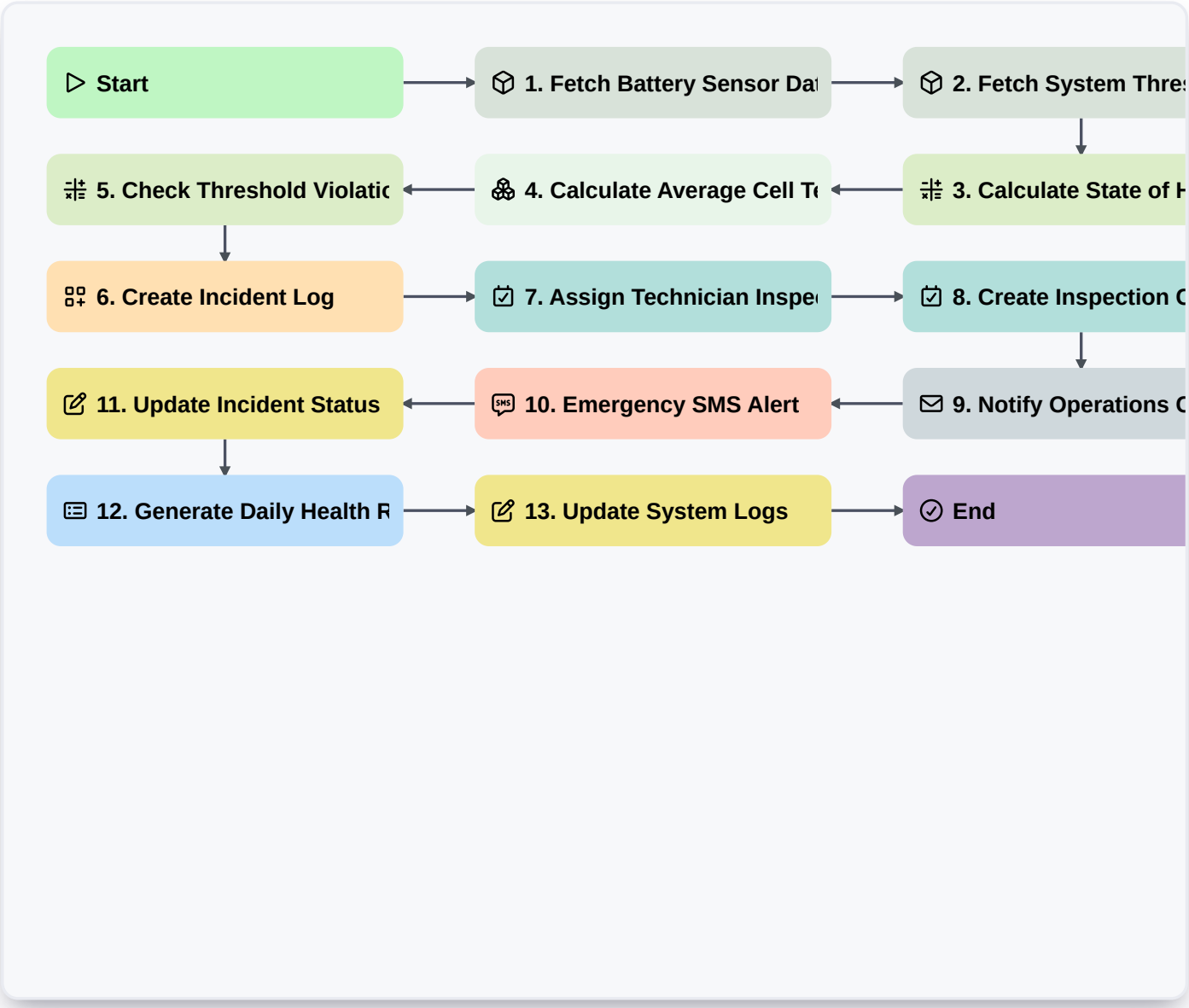
ChecklistGuro

Energy Storage System Monitoring Process



Start
Start of the Workflow/Process.

1. Fetch Battery Sensor Data
Retrieve the latest voltage, current, and temperature readings from the Battery Management System (BMS) data model.

2. Fetch System Thresholds
Retrieve predefined safety threshold values (e.g., Max Temp, Min SoC) from the Configuration data model.

3. Calculate State of Health (SoH)
Calculate the current degradation level using voltage and cycle count variables.

4. Calculate Average Cell Temperature
Calculate the average temperature across all individual battery cell entries to detect thermal anomalies.

5. Check Threshold Violation
Compare the aggregated temperature and current voltage against the retrieved threshold values.

6. Create Incident Log
Create a new entry in the 'Incidents' data model if a threshold violation is detected.

7. Assign Technician Inspection
Create a high-priority task for the On-site Maintenance Engineer to inspect the hardware.

8. Create Inspection Checklist
Attach a specific 'Thermal Inspection' checklist to the technician's task.

9. Notify Operations Center
Send an urgent email alert to the Operations Center with the details of the detected anomaly.

10. Emergency SMS Alert
Send an SMS notification to the duty manager for immediate awareness of critical system failure.

11. Update Incident Status
Update the status of the Incident Log entry to 'In Progress' once the task is acknowledged.

12. Generate Daily Health Report
Generate a summary report containing aggregated performance metrics for the last 24 hours.

13. Update System Logs
Update the historical performance data model with the newly calculated SoH and performance metrics.

End
End of the Workflow/Process.