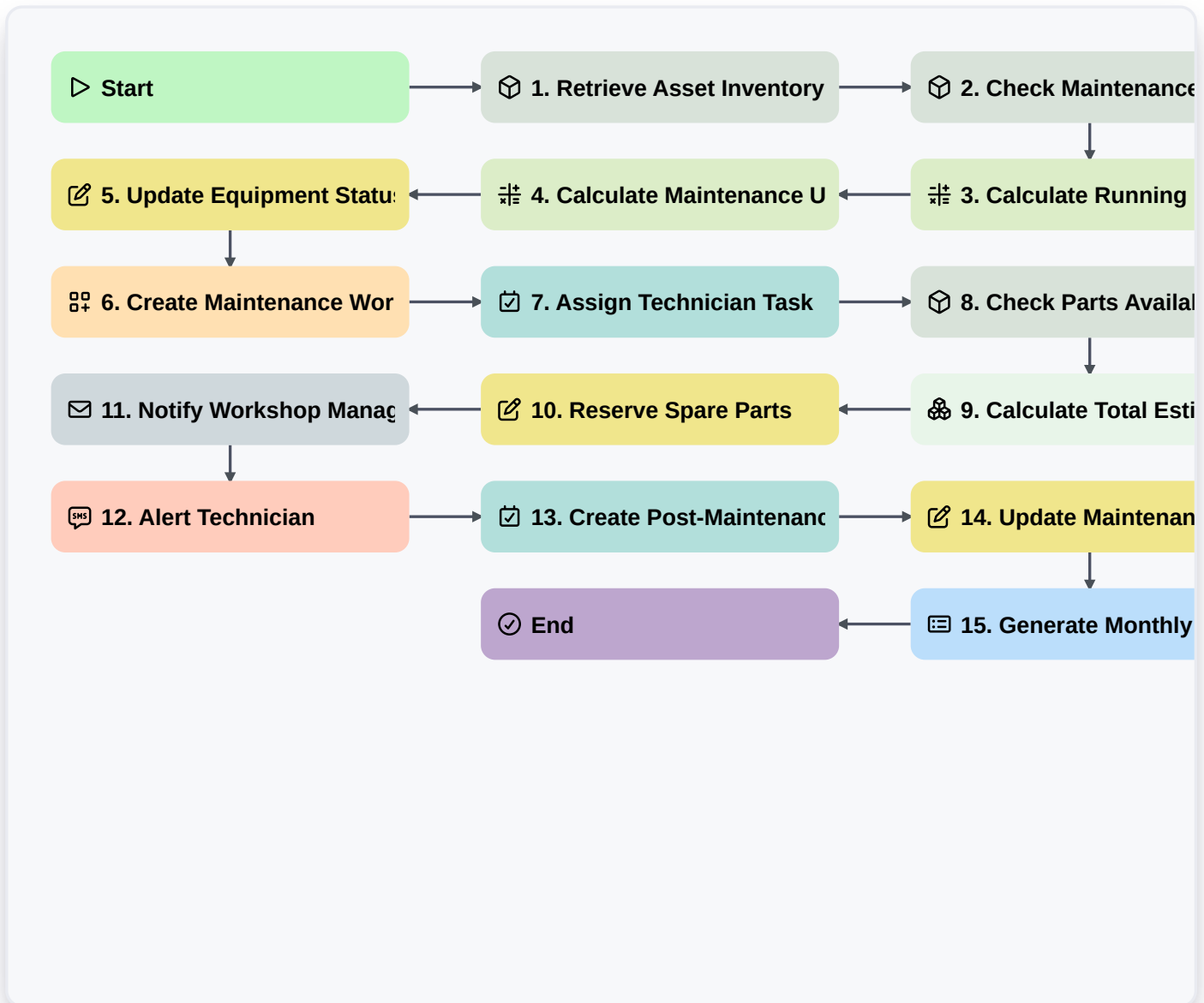


Mine Equipment Maintenance Scheduling



Start

Start of the Workflow/Process.

1. Retrieve Asset Inventory

Fetch all active mining equipment entries from the Equipment Data Model to identify machines due for maintenance.

2. Check Maintenance Logs

Retrieve the last recorded maintenance date and service history for the selected equipment.

3. Calculate Running Hours

Calculate the total operational hours since the last service by comparing current meter readings to the last recorded reading.

4. Calculate Maintenance Urgency Score

Execute a formula based on $(\text{Current Hours} - \text{Threshold Hours})$ to determine the priority level of the maintenance task.

5. Update Equipment Status

Update the status of the selected equipment to 'Scheduled for Maintenance' in the Equipment Data Model.



6. Create Maintenance Work Order

Create a new entry in the Work Order Data Model containing the scheduled date, equipment ID, and required parts.

7. Assign Technician Task

Create a task for the assigned Maintenance Technician containing the work order details and checklist.

8. Check Parts Availability

Retrieve entries from the Spare Parts Data Model to ensure required components are in stock.

9. Calculate Total Estimated Cost

Sum the estimated costs of all parts and labor hours required for this specific maintenance event.

10. Reserve Spare Parts

Update the quantity of specific parts in the Inventory Data Model to 'Reserved' status for this work order.

11. Notify Workshop Manager

Send an email to the Workshop Manager notifying them of the new scheduled maintenance and resource requirements.

12. Alert Technician

Send an SMS to the assigned technician with the work order number and start time.

13. Create Post-Maintenance Inspection Task

Create a follow-up task for a Supervisor to verify the maintenance was completed according to standards.

14. Update Maintenance Log

Update the historical maintenance record entry with the completion date and findings.

15. Generate Monthly Maintenance Summary

Create a report aggregating all completed maintenance tasks for the current period for management review.

End

End of the Workflow/Process.