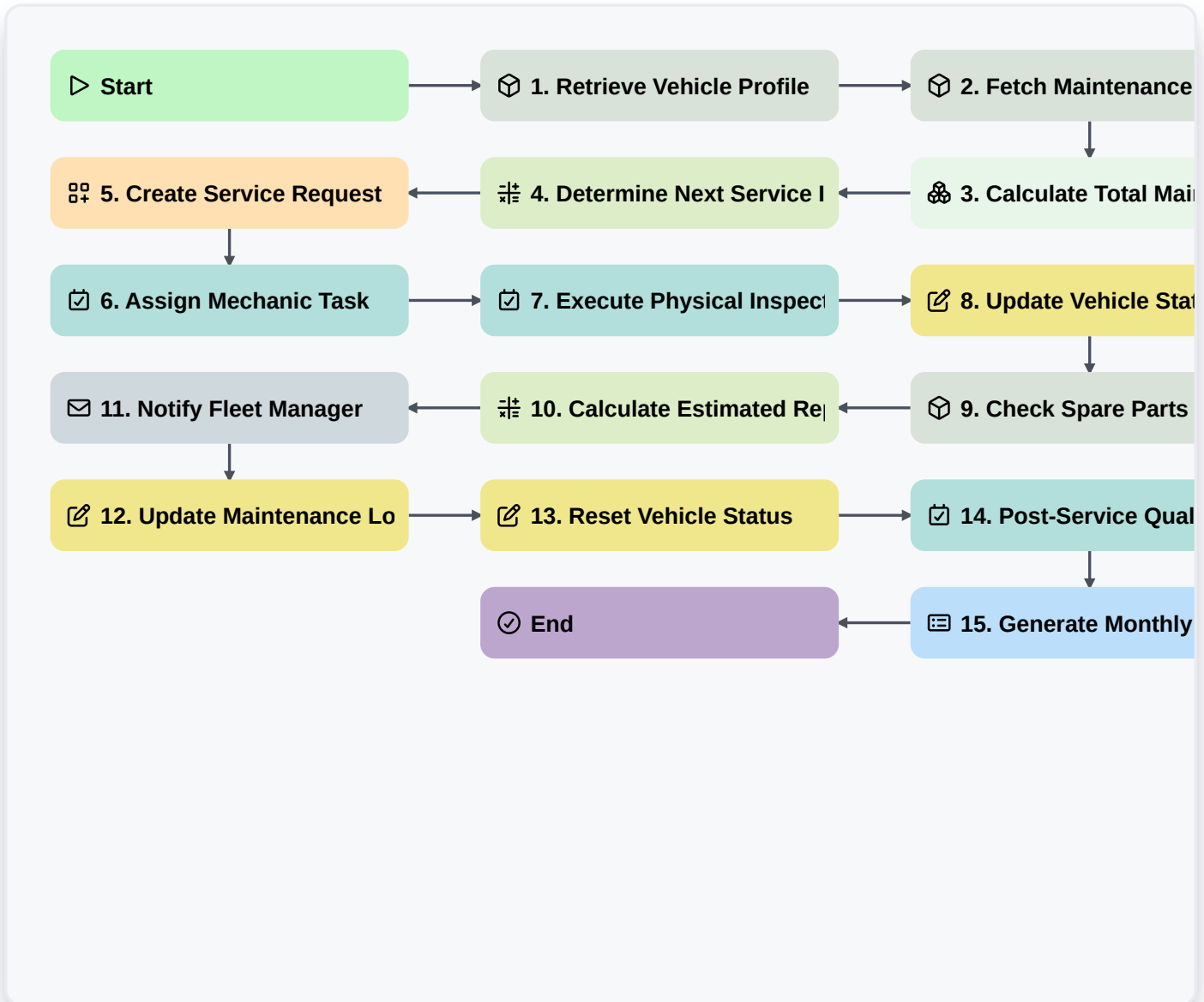


Fleet Maintenance Management Process



▷ Start

Start of the Workflow/Process.

📦 1. Retrieve Vehicle Profile

Fetch vehicle details, including model, age, and last service date from the Vehicle Data Model.

📦 2. Fetch Maintenance History

Retrieve all previous maintenance logs associated with the specific Vehicle ID.

🧮 3. Calculate Total Maintenance Cost

Sum the costs of all previous repair entries to determine the lifetime maintenance spend for the vehicle.

📅 4. Determine Next Service Interval

Calculate the next due date by adding the standard service interval (e.g., 12 months) to the last service date.

📄 5. Create Service Request

Generate a new entry in the 'Maintenance Requests' data model to log the upcoming requirement.

📅 6. Assign Mechanic Task

Create a task for the Workshop Manager to review and approve the maintenance request.



7. Execute Physical Inspection

Create a task for the assigned Mechanic containing a mandatory inspection checklist.

8. Update Vehicle Status

Update the 'Status' field in the Vehicle Data Model to 'Under Maintenance'.

9. Check Spare Parts Inventory

Retrieve required parts from the Inventory Data Model to check for availability.

10. Calculate Estimated Repair Cost

Sum the estimated labor costs and part prices to create a total estimate.

11. Notify Fleet Manager

Send an email to the Fleet Manager once the repair estimate is ready for approval.

12. Update Maintenance Log

Update the specific maintenance entry with the actual costs and parts used after the task is completed.

13. Reset Vehicle Status

Update the Vehicle Data Model status from 'Under Maintenance' back to 'Active'.

14. Post-Service Quality Check

Create a task for the Quality Controller to verify the work performed.

15. Generate Monthly Fleet Health Report

Generate a summary report containing aggregated maintenance costs and vehicle downtime statistics.

End

End of the Workflow/Process.