

Automotive Workshop Capacity Planning



▷ Start

Start of the Workflow/Process.

📦 1. Fetch Available Technicians

Retrieve all technicians from the Staff Data Model with 'Available' status.

📦 2. Fetch Pending Service Appointments

Get all upcoming service appointments from the Appointments Data Model for the next 7 days.

🔗 3. Calculate Total Man-Hours Available

Sum the total working hours of all available technicians retrieved in the first step.

🔗 4. Calculate Total Required Repair Hours

Sum the estimated repair duration for all pending appointments.

⚙️ 5. Calculate Capacity Gap

Subtract Total Required Repair Hours from Total Man-Hours Available to determine if there is a deficit or surplus.

📝 6. Update Workshop Load Status

Update the Workshop Capacity Data Model with the new calculated load percentage.



7. Assign Appointment Rescheduling Task

Create a task for the Workshop Manager if the Capacity Gap is negative (overbooked).

8. Create Overcapacity Alert Entry

Create a new entry in the 'Alerts' Data Model when capacity exceeds 95%.

9. Notify Technicians of Schedule Change

Send an email to all assigned technicians regarding updated shift allocations.

10. Notify Customers of Delay

Send an SMS to customers whose appointments are impacted by the capacity shortage.

11. Generate Weekly Capacity Report

Create a PDF report summarizing the workshop utilization and technician productivity for the week.

12. Update Technician Workload

Update individual Technician entries to reflect their newly assigned task hours.

End

End of the Workflow/Process.