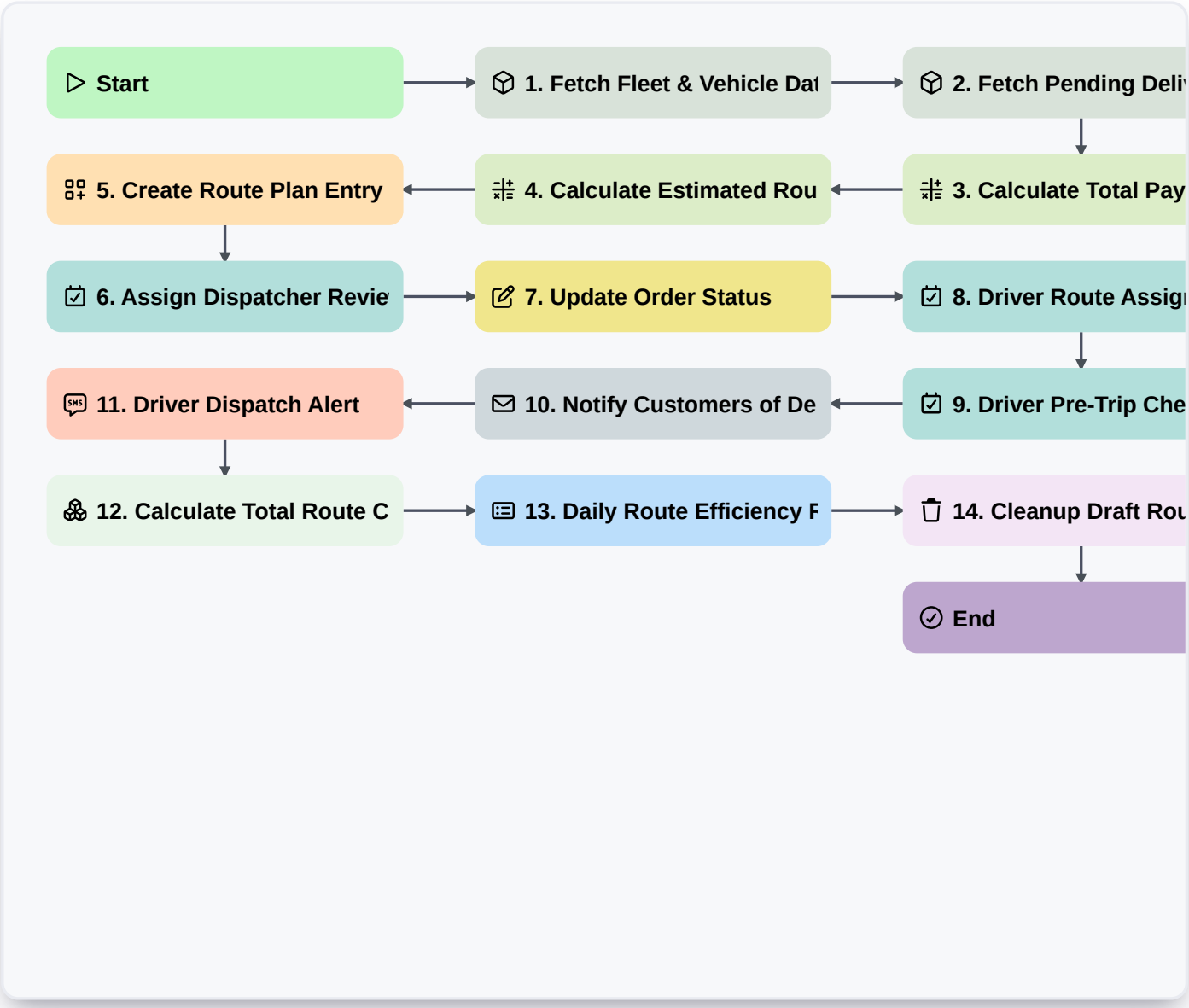
ChecklistGuro

Route Optimization And Planning Workflow



Start
Start of the Workflow/Process.

1. Fetch Fleet & Vehicle Data
Retrieve available vehicles, their capacities, and current locations from the Vehicle Data Model.

2. Fetch Pending Deliveries
Retrieve all orders/deliveries marked as 'Pending' from the Orders Data Model.

3. Calculate Total Payload Demand
Sum the weight and volume of all selected pending deliveries to ensure they fit within vehicle capacity.

4. Calculate Estimated Route Distance
Apply a routing algorithm or formula to estimate the total mileage and travel time based on selected stops.

5. Create Route Plan Entry
Create a new entry in the 'Route Plans' data model containing the calculated stops, assigned vehicle, and estimated duration.

6. Assign Dispatcher Review
Create a task for the Dispatcher to review and approve the generated route plan before deployment.

7. Update Order Status
Update the status of all orders included in the route from 'Pending' to 'Scheduled'.

8. Driver Route Assignment
Create a task for the assigned Driver containing the route details and checklist for departure.

9. Driver Pre-Trip Checklist
Generate a checklist task for the driver to verify vehicle safety, fuel levels, and cargo integrity.

10. Notify Customers of Delivery Window
Send an automated email to customers included in the route with their expected delivery time window.

11. Driver Dispatch Alert
Send an SMS to the Driver's phone number notifying them that a new route has been assigned and is ready for pickup.

12. Calculate Total Route Cost
Aggregate fuel costs, driver wages, and maintenance estimates to calculate the total operational cost of the route.

13. Daily Route Efficiency Report
Generate a report summarizing planned vs. actual mileage and planned vs. actual delivery time for the completed route.

14. Cleanup Draft Routes
Delete expired or unassigned draft route entries from the system to maintain data hygiene.

End
End of the Workflow/Process.