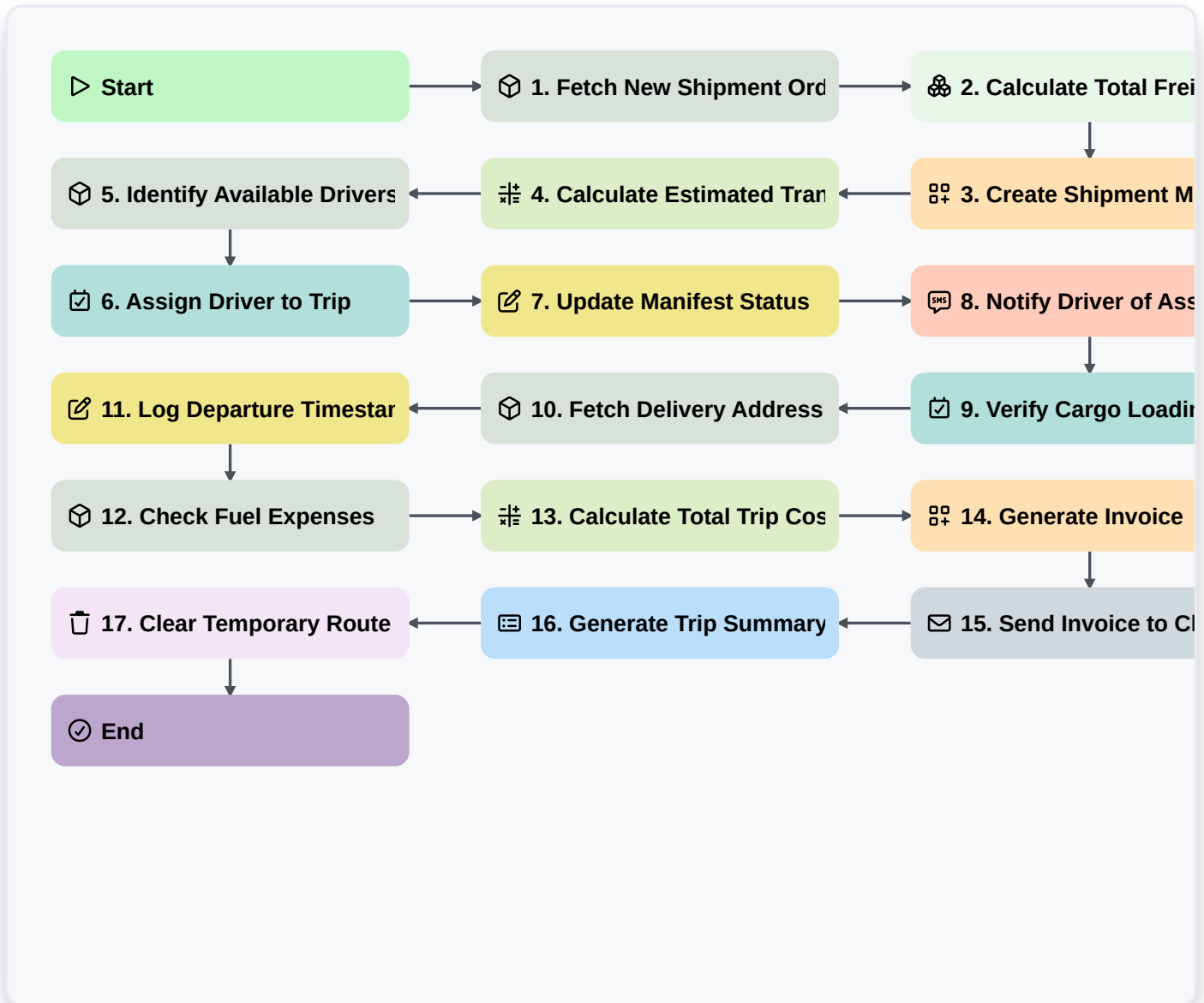


Transportation Management System (TMS) Workflow



▶ Start

Start of the Workflow/Process.

📦 1. Fetch New Shipment Orders

Retrieve all new orders from the 'Shipment Orders' data model that are in 'Pending' status.

⚖️ 2. Calculate Total Freight Weight

Sum the weight property of all items within the selected shipment to determine vehicle capacity requirements.

📄 3. Create Shipment Manifest

Generate a new entry in the 'Manifest' data model linked to the selected shipment orders.

🕒 4. Calculate Estimated Transit Time

Calculate the arrival time by adding the 'Estimated Duration' to the 'Departure Timestamp'.

📦 5. Identify Available Drivers

Query the 'Drivers' data model for drivers with 'Status: Available' and sufficient license type.



6. Assign Driver to Trip

Create a task for the Dispatcher to review and assign a specific driver to the generated Manifest.

7. Update Manifest Status

Update the status of the Shipment Manifest to 'Dispatched' once a driver is assigned.

8. Notify Driver of Assignment

Send an SMS to the assigned driver's phone number containing the Pickup Location and Manifest ID.

9. Verify Cargo Loading

Create a task for the Warehouse Operator to complete the loading checklist.

10. Fetch Delivery Address Details

Retrieve geolocation and contact information from the 'Destination' data model.

11. Log Departure Timestamp

Update the 'Actual Departure Time' in the Manifest entry when the driver confirms departure.

12. Check Fuel Expenses

Retrieve all fuel receipts/entries linked to the current trip for cost calculation.

13. Calculate Total Trip Cost

Sum the 'Fuel Cost', 'Driver Wages', and 'Toll Fees' variables to determine total trip expenditure.

14. Generate Invoice

Create a new entry in the 'Invoices' data model based on the final shipment weight and agreed rates.

15. Send Invoice to Client

Send an automated email to the Customer's email address containing the Invoice PDF/Link.

16. Generate Trip Summary Report

Generate a PDF report summarizing the manifest details, total costs, and delivery performance for the completed trip.

17. Clear Temporary Route Cache

Delete temporary route optimization entries from the system once the trip is finalized.

End

End of the Workflow/Process.