

Phase 4: Automation & Process Implementation

Project: Logistics & Shipment Tracking System
Goal: Automate shipment workflows, driver assignment, checkpoint tracking, and notifications to improve operational efficiency.

1. Validation Rules

- Prevent Empty Shipment Data: Ensure Origin, Destination, and Assigned Driver are mandatory.
- Driver Availability Check: Prevent assigning a driver if their status = 'Inactive' or 'Assigned'.

Search Setup

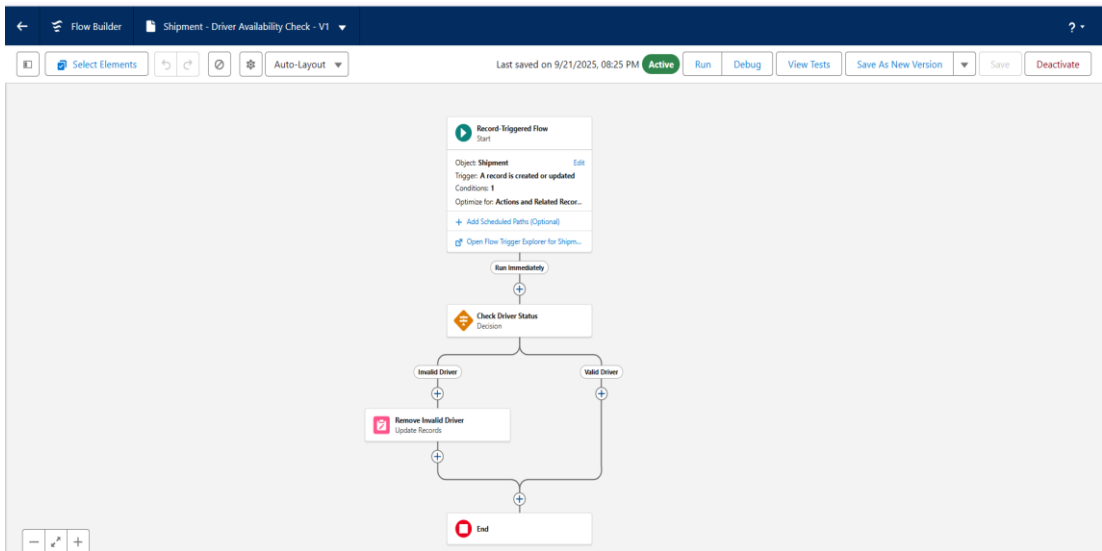
Object Manager

Validation Rules				
2 Items, Sorted by Rule Name				
<div>New</div>				
RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
Driver_Availability_Check	Top of Page	Cannot assign driver. Driver is inactive or already assigned.	✓	Shrawani Gongshe, 9/20/2025, 10:05 PM
Prevent_Empty_Shipment_Data	Top of Page	Origin, Destination, and Assigned Driver are required.	✓	Shrawani Gongshe, 9/20/2025, 9:56 PM

2. Workflow Rules / Flows

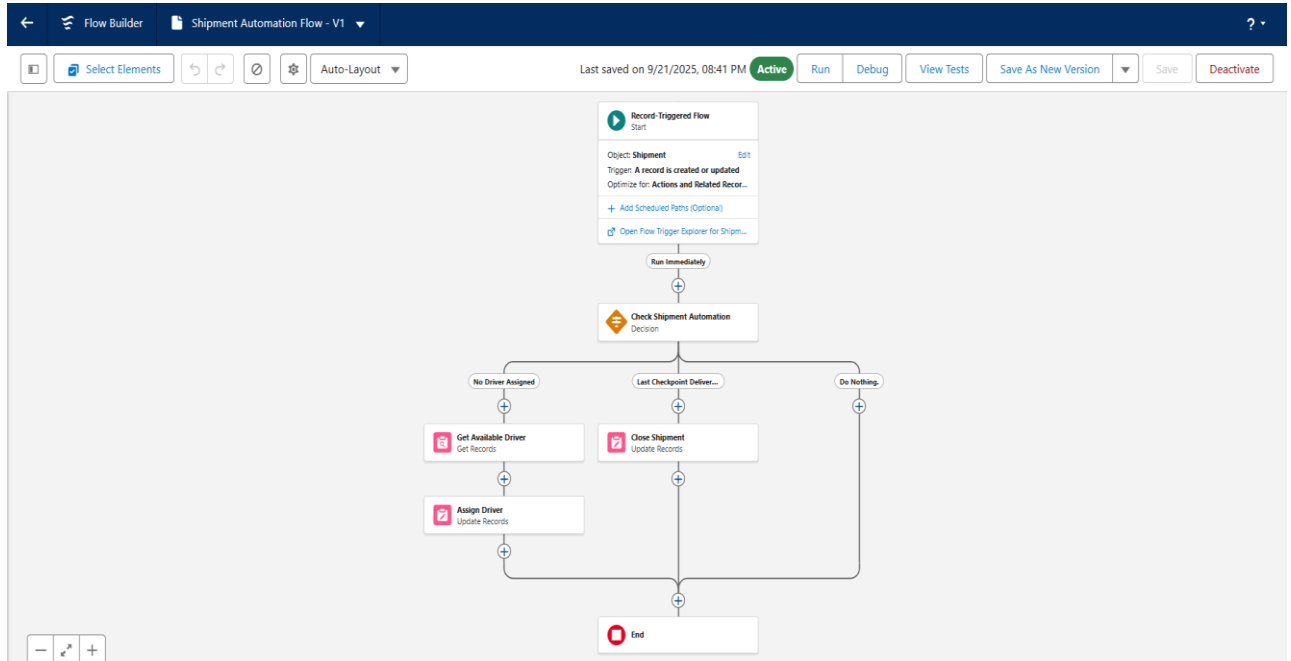
Driver Availability Check (Shipment Flow):
When a Shipment record is created or updated, the system checks the assigned driver's status.

- If the driver is **invalid**, the flow updates the shipment to remove the driver.
- If the driver is **valid**, the shipment continues without changes



3. Process Builder / Flow Automations

- Auto-Assign Driver: Assign an 'Available' driver automatically if shipment created without assignment.
- Auto-Close Shipment: If last checkpoint status = Delivered → Update Shipment Status = Delivered.



4. Approval Processes

- High-Value Shipments: If Shipment value > ₹1,00,000 → Requires Manager Approval before dispatch.

Search Setup

Manager

Approval Processes

Shipment: High Value Shipment Approval

Process Definition Detail

Process Name	High Value Shipment Approval	Active	<input checked="" type="checkbox"/>
Unique Name	High_Value_Shipment_Approval	Next Automated Approver Determined By	Manager of Record Submitter
Description			
Entry Criteria	Shipment: Shipment Value GREATER THAN 100000		
Record Editability	Administrator ONLY	Allow Submitters to Recall Approval Requests	<input type="checkbox"/>
Approval Assignment Email Template	High_Value_Shipment_Approval		
Initial Submitters	Shipment Owner		
Created By	Shrawani Gongshi: 9/21/2025, 9:07 AM		
Modified By	Shrawani Gongshi: 9/21/2025, 9:07 AM		

Initial Submission Actions

Action	Type	Description
Record Lock		Lock the record from being edited

Approval Steps

You have not yet defined any approval steps

5. Email Alerts & Notifications

- Shipment Dispatched Email → Sent to customer.
- Delay Notification → Sent to Manager if shipment delayed beyond planned delivery date.

Search Setup

Star

Plus

Cloud

Help

Settings

2

Profile

Manager

SETUP

Classic Email Templates

Custom Email Template

Shipment Dispatched Email

Help for this Page

Preview your email template below.

Email Template Detail

Edit Properties

Edit HTML Version

Edit Text Version

Delete

Clone

Email Templates from Salesforce

Unfiled Public Classic Email Templates

Email Template Name

Shipment Dispatched Email

Available For Use

✓

Template Unique Name

Shipment_Dispatched_Email

Last Used Date

Encoding

Unicode (UTF-8)

Times Used

Author

Shrawani Gongshi [Change]

Description

Created By

Shrawani Gongshi, 9/21/2025, 9:59 AM

Modified By

Shrawani Gongshi, 9/21/2025, 9:59 AM

Edit Properties

Edit HTML Version

Edit Text Version

Delete

Clone

Email Template

Send Test and Verify Merge Fields

Subject

Your Shipment #123 has been Dispatched!

HTML Preview

HTML Preview

{!Customer.Name}, {!Shipment.TrackingNumber}, {!Shipment.DeliveryDate}

Search Setup

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Profile

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SETUP

Classic Email Templates

Custom Email Template

Delay Notification

Help for this Page

Preview your email template below.

Email Template Detail

Edit Properties

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Delete

Clone

Email Templates from Salesforce

Unfiled Public Classic Email Templates

Email Template Name

Delay Notification

Available For Use

✓

Template Unique Name

Delay_Notification

Last Used Date

Encoding

Unicode (UTF-8)

Times Used

Author

Shrawani Gongshi [Change]

Description

Created By

Shrawani Gongshi, 9/21/2025, 10:11 AM

Modified By

Shrawani Gongshi, 9/21/2025, 10:11 AM

Edit Properties

Edit HTML Version

Edit Text Version

Delete

Clone

Email Template

Send Test and Verify Merge Fields

Subject

Alert: Shipment {!Shipment.ShipmentNumber} Delayed

HTML Preview

HTML Preview

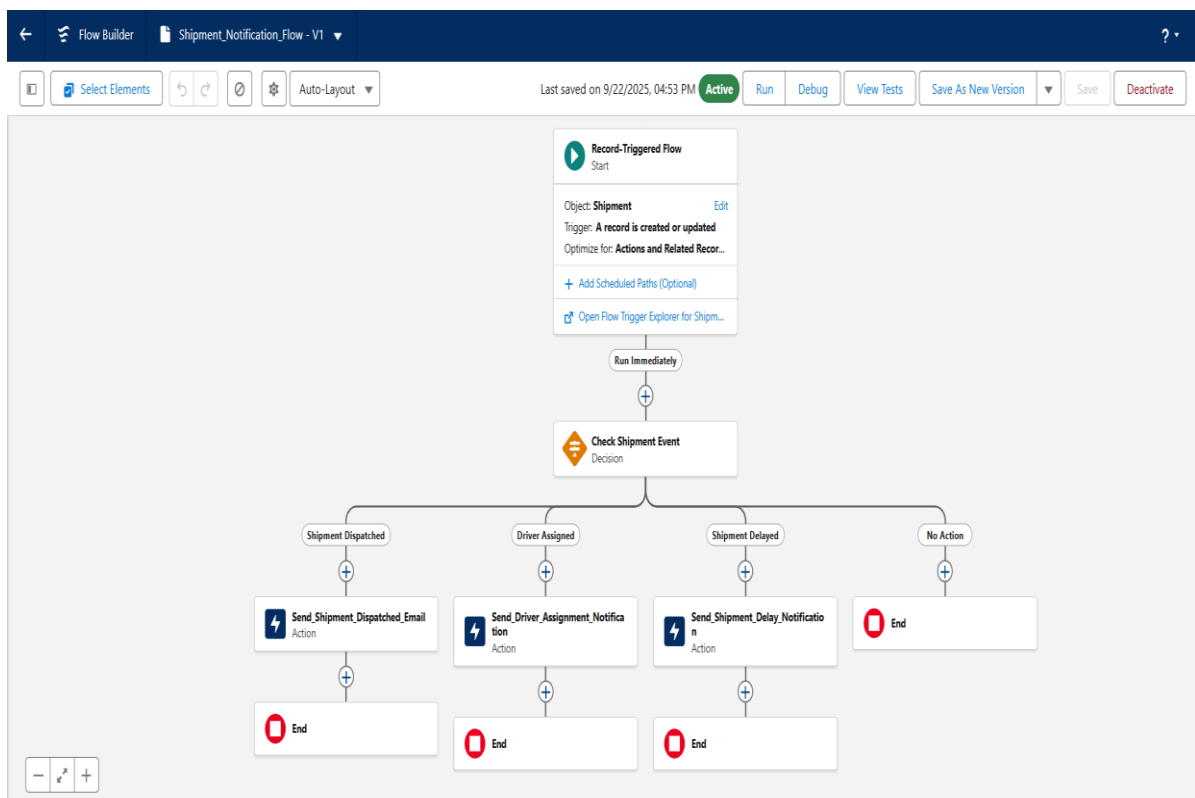
{!Shipment.Id}

6. Reports & Dashboards (Automation Support)

- At this stage of my project (building the **Shipment Notifications LWC** and its backend), I don't need a dashboard yet. Dashboards in Salesforce are based on **Reports** and are useful for showing summarized trends like “*Total shipments today,*” “*Delayed shipments,*” or “*Notifications by type.*”
- The **LWC component**, on the other hand, works as a **real-time alert widget** by pulling live data from `ShipmentNotification__c` through Apex. This allows users to see shipment updates instantly on the Lightning page, whereas a dashboard would only be useful later for overall monitoring and trend analysis.

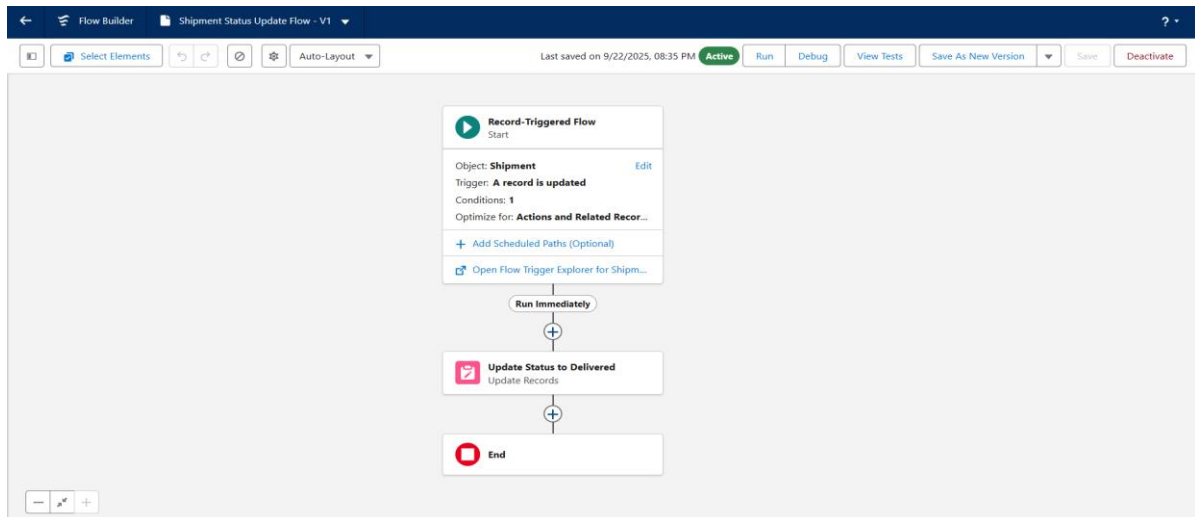
Automation Support with Flows

- **Shipment Dispatched Notification:** Automatically sends a confirmation email to the customer when the shipment is dispatched.
- **Driver Assignment Notification:** Sends a notification to the assigned driver once the shipment is allocated.
- **Shipment Delay Notification:** Notifies the logistics manager/customer in case of shipment delays.



7. Field Updates

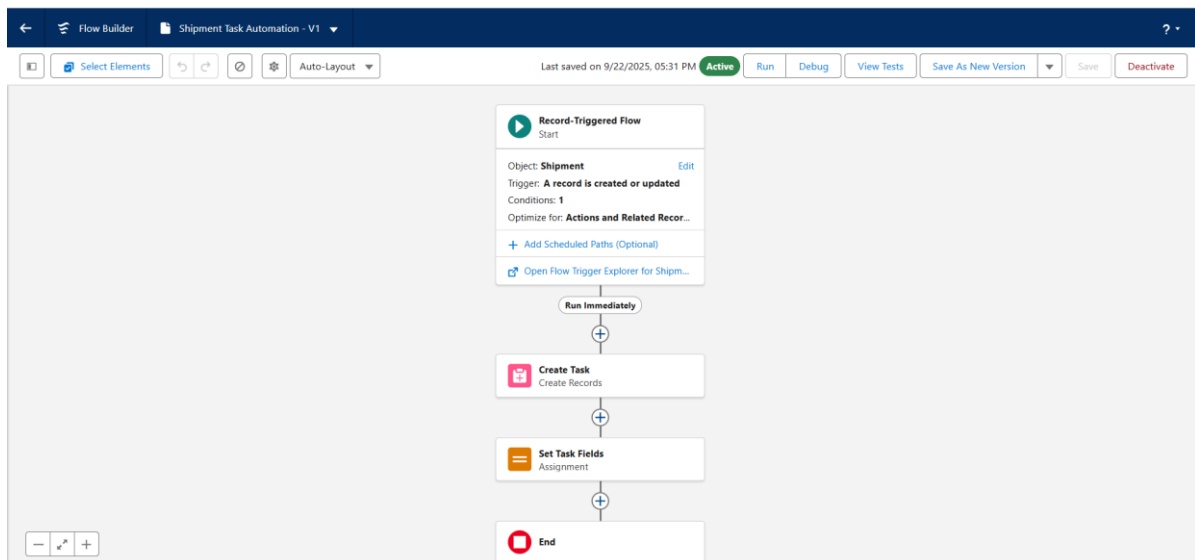
- **Shipment Status Update:** Automatically updates the status to *Delivered* when the record meets conditions.
- **Real-Time Processing:** Runs immediately upon record update, no manual intervention needed.



8. Tasks


Shipment Task Automation Flow (Tasks):

- **Auto Task Creation:** Creates a follow-up task automatically whenever a shipment record is created or updated.
- **Field Assignment:** Sets predefined task fields (e.g., subject, owner, due date) to ensure proper tracking.



9. Custom Notifications

- **Driver Assignment Alert:** Notifies drivers in real time when a new shipment is assigned.
- **Shipment Delayed Notification:** Sends alerts to managers/customers if a shipment gets delayed.


Custom Notifications

When you create and use custom notifications, the title and body of the custom push notification may be saved to and processed by Google, Microsoft and/or Apple. Salesforce is not responsible for the privacy and security practices of third-party systems or applications like Google Cloud Messaging or Apple Push Notification Service.

Custom Notification Types

New

Send custom notifications using [Flows](#) or [Process Builder](#)

NOTIFICATION NAME	API NAME	NAMESPACE	DESKTOP	MOBILE
Driver Assignment Alert	Driver_Assignment_Alert		✓	
enablement_coaching_feedback_ready	enablement_coaching_feedback_ready		✓	
Shipment Delayed Notification	Shipment_Delayed_Notification		✓	✓

Phase 4 Automation Overview

Shipment Creation → [Auto Assign Driver] → Notify Driver ↓ Confirmation Email to Customer ↓
 Shipment In Transit → Checkpoint Updates ↓ If Last Checkpoint = Delivered → Auto Close
 Shipment ↓ Reports & Dashboards update automatically

■ Phase 4 Deliverables Achieved

- Built validation rules for data accuracy.
- Configured automation using **Flows** (Driver Availability Check, Shipment Notifications, Status Update, Task Automation).
- Created approval process for high-value shipments.
- Setup **email, SMS, and custom notifications** for customers & drivers.
- Developed **Shipment Notifications LWC** for real-time alerts (Apex + Custom Notifications).
- Scheduled automated reports and dashboards (for trend analysis, not real-time alerts).
- Implemented field updates (auto status change to *Delivered*).
- Automated task creation and assignment for shipments.

