

Phase 4: Process Automation (Admin)

Introduction

This phase focuses on automating key business processes to reduce manual effort, improve efficiency, and ensure data consistency. By leveraging Salesforce automation tools like Validation Rules, Flows, Approval Processes, Email Alerts, and Notifications, EcoCart Logistics CRM can handle shipment updates, order approvals, and customer communication seamlessly.

Objectives

- Prevent invalid or incomplete data using **Validation Rules**.
- Automate shipment/order status updates with **Flows**.
- Implement **Approval Processes** for delayed shipments or bulk orders.
- Notify customers and managers with **Email Alerts** and **In-App Notifications**.
- Assign **Tasks** automatically to logistics agents.
- Improve transparency and efficiency in order-to-delivery operations.

1. Validation Rules

Shipment Expected Date Validation:

- Rule: Expected Delivery Date must be after or equal to Order Date.
- Example Formula:
 $\text{Expected_Delivery_Date_c} < \text{Order_Date_c}$
- Error Message: *"Expected Delivery Date cannot be before Order Date."*

The screenshot shows the 'Shipment Validation Rule Edit' page in Salesforce Setup. The left sidebar contains navigation links: Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, and Object Access. The main content area is titled 'Shipment Validation Rule' and includes a description: 'Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the save will be aborted and the error message will be displayed. The user can correct the error and try again.' The 'Validation Rule Edit' section has buttons for 'Save', 'Save & New', and 'Cancel'. The 'Rule Name' field is 'Expected_Delivery_After_Order'. The 'Active' checkbox is checked. The 'Description' field is empty. The 'Error Condition Formula' section shows an example: 'Discount_Percent_c > 0.30' and a note: 'Display an error if Discount is more than 30%. If this formula expression is true, display the text defined in the Error Message area.' The formula field contains 'Expected_Delivery_Date__c < Order__r.EffectiveDate'. A 'Functions' dropdown menu is open, showing categories like ABS, ACOS, ADDMONTHS, AND, ASCII, and ASIN. A 'Quick Tips' section on the right lists 'Operators & Functions'.

The screenshot shows the 'Shipment Validation Rule Edit' page in Salesforce Setup, focusing on the 'Error Message' section. The left sidebar is the same as the previous screenshot. The main content area shows the 'Error Condition Formula' field with the formula 'Expected_Delivery_Date__c < Order__r.EffectiveDate'. Below it, the 'Error Message' section has an example: 'Discount percent cannot exceed 30%' and a note: 'This message will appear when Error Condition formula is true'. The 'Error Message' field contains 'Expected Delivery Date cannot be before Order Date.'. Below the error message field, there is a section for 'Error Location' with radio buttons for 'Top of Page' (selected) and 'Field'. The 'Check Syntax' button shows 'No errors found'. The 'Functions' dropdown menu is still open, showing the same categories as before. The 'Save', 'Save & New', and 'Cancel' buttons are at the bottom.

2. Flows

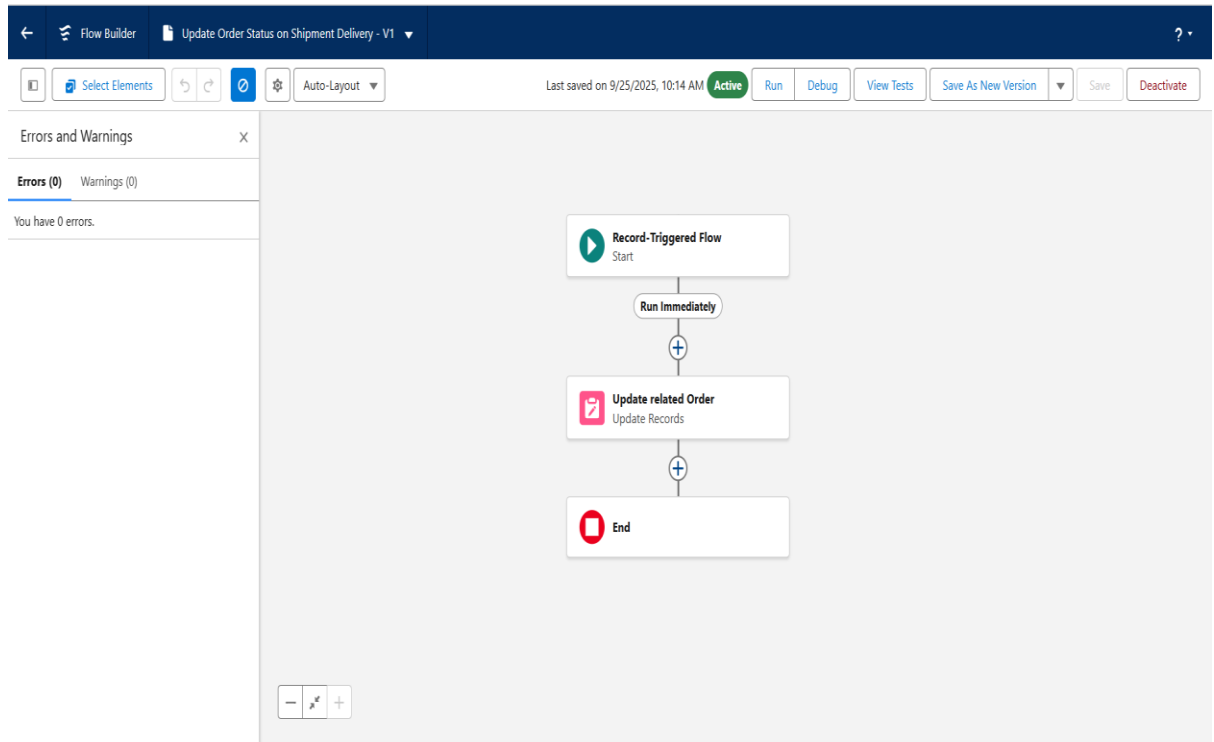
Record-Triggered Flow → Shipment → Order Status Sync

Goal: When a Shipment is delivered, mark the related Order as Completed.

Steps:

1. Go to **Setup → Flows → New Flow → Record-Triggered Flow**.
2. Choose **Object = Shipment**.
3. Trigger: **When record is created or updated**.
4. Entry Condition: Status = Delivered.
5. Add **Update Records** element:
 - Update related **Order (via Lookup)**.
 - Field: Order_Status__c = Completed.
6. Save & Activate.

The screenshot displays the Salesforce Flow Builder interface. On the left, a canvas shows a 'Record-Triggered Flow' starting with a 'Start' node, followed by a 'Run Immediately' node, and an 'End' node. The flow is configured for the 'Shipment' object with the trigger 'A record is created or updated' and 'Conditions: 1'. Below the canvas, there are buttons for 'Add Scheduled Paths (Optional)' and 'Open Flow Trigger Explorer for Shipment...'. On the right, the 'Configure Start' panel is open, showing the 'Select Object' dropdown set to 'Shipment'. Under 'Configure Trigger', the 'Trigger the Flow When:' section has 'A record is created or updated' selected. The 'Set Entry Conditions' section shows a condition requirement of 'Custom Condition Logic Is Met'. The 'Condition Logic' section shows a single condition: 'Status' equals 'Delivered'.



3. Approval Process

Delayed Shipment Approval

- **Object:** Shipment
- **Label:** Delayed Shipment Approval
- **Description:** Approves delayed shipments beyond 2 days to ensure manager oversight.

Steps to Configure:

1. Go to **Setup → Approval Processes → New Approval Process**.
2. Choose **Shipment (Custom Object)**.

The screenshot shows the Salesforce Setup interface. On the left is a navigation menu with 'Setup' at the top, followed by 'Home' and 'Object Manager'. Below these are sections for 'Data', 'Feature Settings', 'Process Automation', and 'Approval Processes'. The 'Approval Processes' section is highlighted. The main content area is titled 'Approval Processes' and shows a 'New Approval Process' wizard for 'Shipments'. The wizard is at 'Step 1 of 6: Enter Name and Description'. It prompts the user to 'Enter a name and description for your new approval process.' Below this, there are three fields: 'Process Name' (containing 'Delayed Shipment Approval'), 'Unique Name' (containing 'Delayed_Shipment_Approval'), and 'Description' (containing 'Approves delayed shipments beyond 2 days to ensure manager oversight'). There are 'Next' and 'Cancel' buttons at the bottom right of the form.

1. Entry Criteria:

- Status = Delayed
- $TODAY() - Expected_Delivery_Date_c > 2$

2. Assign Approver: Manager Role.

3. Approval Actions:

- On Approval → Update Status = Approved Delay.
- On Rejection → Send Email/Notification to **Assigned Agent** with message: *"Shipment delay rejected. Please reassign delivery."*

This screenshot shows the 'Step 2 of 6: Specify Entry Criteria' of the 'New Approval Process' wizard for 'Shipments'. It instructs the user to 'Enter criteria below' and provides an example: 'OwnerId <> LastModifiedById (0) evaluates to true when the person who last modified the record is not the record owner.' Below the example, there are 'Insert Field' and 'Insert Operator' buttons. A text box contains the formula: $TODAY() - Expected_Delivery_Date_c > 2$. To the right, there is a 'Functions' dropdown menu showing a list of functions: ABS, ACOS, ADDMONTHS, AND, ASCII, and ASIN. There is an 'Insert Selected Function' button at the bottom of the functions list. Navigation buttons 'Previous', 'Next', and 'Cancel' are at the top right of the step.



SETUP

Approval Processes

New Approval Process

Shipments

[Help for this Page](#)

Step 3. Specify Approver Field and Record Editability Properties

Step 3 of 6

[Previous](#) [Next](#) [Cancel](#)

When you define approval steps, you can assign approval requests to different users. One of your options is to use a user field to automatically route these requests. If you want to use this option for any of your approval steps, select a field from the picklist below. Also, when a record is in the approval process, it will always be locked-- only an administrator will be able to edit it. However, you may choose to also allow the currently assigned approver to edit the record.

Select Field Used for Automated Approval Routing

Next Automated Approver Determined By Manager

Use Approver Field of Shipment Owner



Record Editability Properties

- ☒ Administrators **ONLY** can edit records during the approval process.
- ☐ Administrators **OR** the currently assigned approver can edit records during the approval process.

[Previous](#) [Next](#) [Cancel](#)

SETUP

Approval Processes

Approval Processes

Shipment: Delayed Shipment Approval

[Help for this Page](#)[Back to Approval Process List](#)

Process Definition Detail

[Edit](#) [Clone](#) [Delete](#)

Process Name	Delayed Shipment Approval	Active	<input type="checkbox"/>
Unique Name	Delayed_Shipment_Approval	Next Automated Approver Determined By	Manager of Record Owner
Description	Approves delayed shipments beyond 2 days to ensure manager oversight		
Entry Criteria	TODAY() - Expected_Delivery_Date__c > 2		
Record Editability	Administrator ONLY	Allow Submitters to Recall Approval Requests	<input type="checkbox"/>
Approval Assignment Email Template			
Initial Submitters	Shipment Owner		
Created By	ANIMIREDDY SAI GOWTHAM, 9/24/2025, 10:10 PM	Modified By	ANIMIREDDY SAI GOWTHAM, 9/24/2025, 10:10 PM

Initial Submission Actions

[Add Existing](#) [Add New](#)

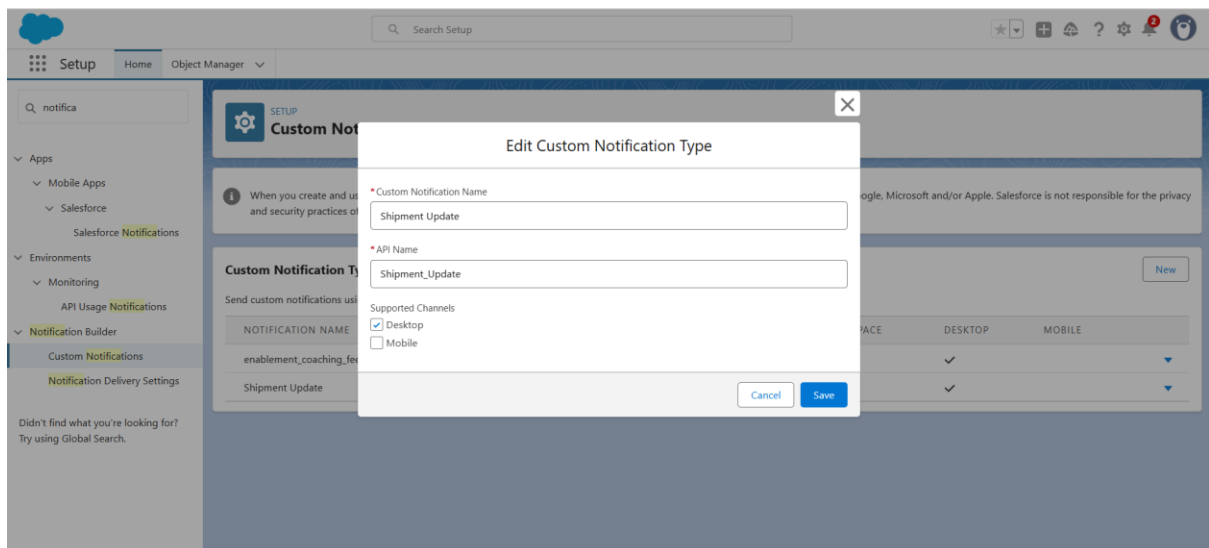
Action	Type	Description
	Record Lock	Lock the record from being edited

Approval Steps

[New Approval Step](#)

4. Custom Notifications (In-App & Push)

- Setup **Custom Notification Type: *Shipment Update***.
- Triggered when:
 - Shipment approved.
 - Shipment delayed.
- Appears as a **Salesforce Bell Notification** for the assigned Agent.





SETUP

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
enablement_coaching_feedback_ready	enablement_coaching_feedback_ready		✓	▼
Shipment Update	Shipment_Update		✓	▼

Results Achieved

- Validation rules prevent incorrect delivery data.
- Flows automatically handle shipment → order updates, overdue checks, and agent forms.
- Approval processes ensure manager oversight for critical cases.
- Email alerts keep customers and managers informed in real-time.
- Tasks and notifications streamline agent workload.
- Logistics process becomes **faster, transparent, and less error-prone**.

Next Steps

- Move to **Phase 5: Apex Programming (Developer)**.
- Build **Apex Triggers** to prevent overlapping shipments.
- Implement **Batch Apex** to auto-update overdue shipments daily.
- Write **Test Classes** for automation logic.
- Integrate Flows with **custom Apex actions** for advanced logic.