## Phase 4: Process Automation (Admin)

In this phase, different Salesforce automation tools (Validation Rules, Workflow Rules, Process Builder, Approval Process, Flows, Email Alerts, Field Updates, Tasks, and Custom Notifications) are implemented to streamline shipment tracking operations. Each concept is explained with a use case and supported by screenshots.

Step 1: Validation Rule — Prevent Expected Delivery < Shipment Date

Use case recap: Do not allow saving a Shipment record when Expected_Delivery_Date__c is earlier than Shipment_Date__c.
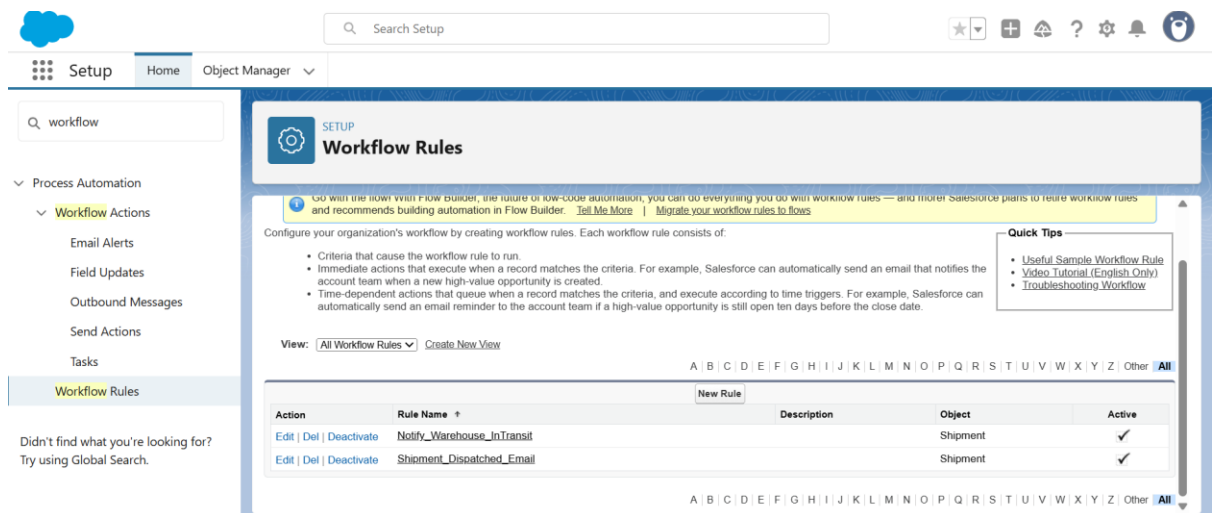
Steps (create):

1. Setup → Object Manager → Shipment → Validation Rules → New.
2. Rule Label: ExpectedDate_after_or_equal_ShipmentDate
3. Formula (recommended to avoid errors when dates blank):
4. AND(
5.   NOT(ISBLANK(Expected_Delivery_Date__c)),
6.   NOT(ISBLANK(Shipment_Date__c)),
7.   Expected_Delivery_Date__c < Shipment_Date__c)
8. Error Message: Expected Delivery Date cannot be earlier than Shipment Date.
9. Error Location: choose Field → Expected_Delivery_Date__c.
10. Save → Activate.
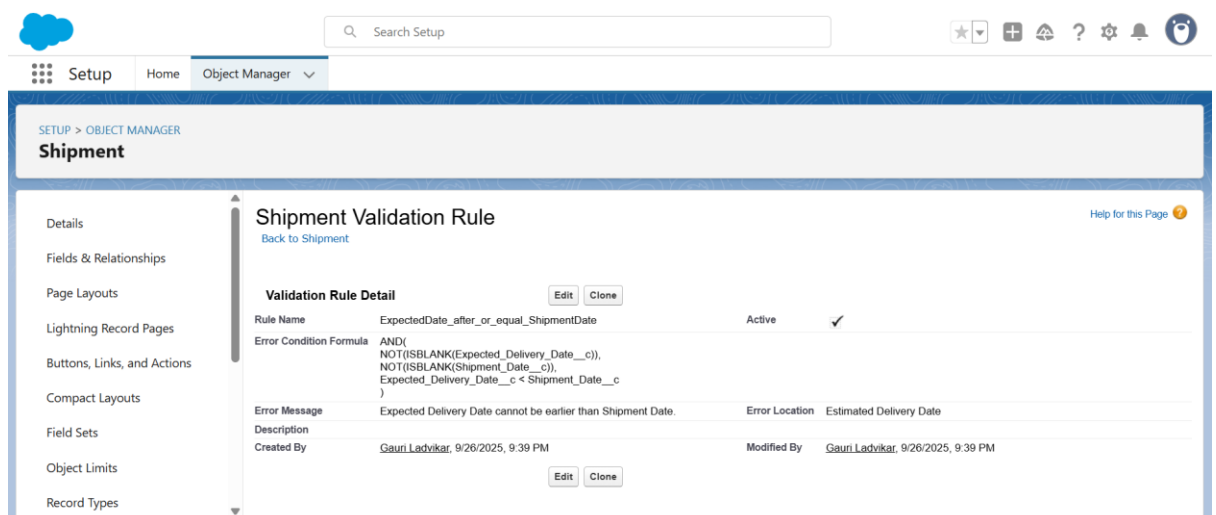
Step 2: Workflow Rule — Email when Status = Dispatched

Use case recap: When Status__c = 'Dispatched', email the customer automatically.

1. Setup → Workflow Rules → New Rule.

2. Choose Object: Shipment → Next.

3. Rule Name: Shipment_Dispatched_Email

4. Evaluation Criteria: created, and any time it's edited to subsequently meet criteria.

5. Rule Criteria: either use Field criteria:

   o Field: Status__c | Operator: equals | Value: Dispatched
   or use formula:

6. ISPICKVAL(Status__c, "Dispatched")

7. Save Rule → Add Workflow Action → New Email Alert.

8. Save, then Activate the Workflow Rule.

Step 3: Process Builder — High-value shipment sets Priority + creates Task

Use case recap: If Shipment_Value__c > 50000 → set Priority__c = High and create a Verification Task for Logistics Manager.

Steps (create):

1. Setup → Process Builder → New.

   o Name: PB_HighValueShipment_Actions

   o The process starts: when a record changes.

2. Add Object: Shipment — Start the process when a record is created or edited.

3. Add Criteria Node:

   o Criteria Name: High_Value_Check

- o Criteria for Executing Actions: Conditions are met
- o Condition: Shipment_Value__c > 50000 (Boolean logic AND)

4. Immediate Actions (add two):

- o Action 1 — Update Records
  - Action Type: Update Records → Select the Shipment record that started the process → Set Priority__c = High.
- o Action 2 — Create a Task
  - Action Type: Create a Record → Record Type: Task.
  - Set Task fields:
    - Subject = Verify High-Value Shipment
    - Status = Not Started
    - Priority = High
    - WhatId = [Shipment].Id (to relate task to Shipment)
    - OwnerId = [Shipment].Logistics_Manager__c (or a specific User Id / Queue)

5. Save → Activate the process.
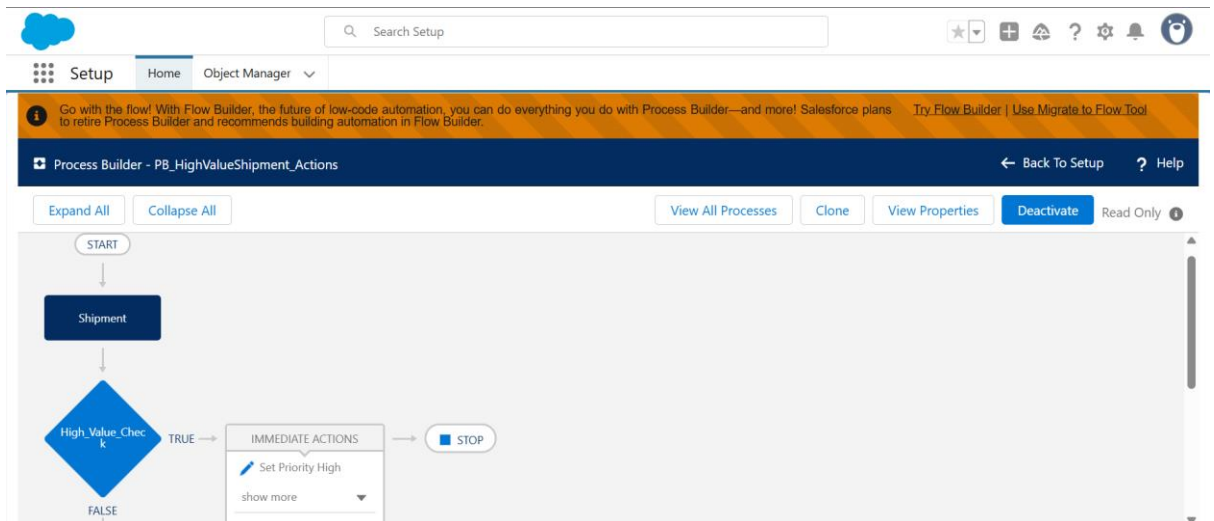
Step 4: Approval Process — Manager approval for shipments > 50,000

Use case recap: Shipments valued > 50,000 must be approved before dispatch.

Steps (create):

1. Setup → Approval Processes → Create New Approval Process → Use Standard Setup Wizard.

2. Select Object: Shipment → Next.

3. Fill basic info:

   o Process Name: Shipment_HighValue_Approval

   o Unique Name: Shipment_HighValue_Approval

4. Entry Criteria:

   o Shipment_Value__c > 50000

5. Specify Initial Submitters (e.g., all users or specific profiles).

6. Specify Approver Field or Step:

   o Approver: Choose Automatically assign to approver(s) and select User or Role — e.g., Role = Logistics Manager OR use field Logistics_Manager__c as the approver.

7. Configure Approval Steps (if multiple levels needed): single step is fine — Approver = Logistics Manager.

8. Final Approval Actions:

   o Field Update: Status__c = Approved (or Pending Dispatch → then a separate process to move to Dispatched)

   o Email Alert: Notify submitter, notify Logistics Manager (optional)

9. Final Rejection Actions:

   o Field Update: Status__c = Rejected

   o Email Alert: Notify submitter

10. Save → Activate the approval process.
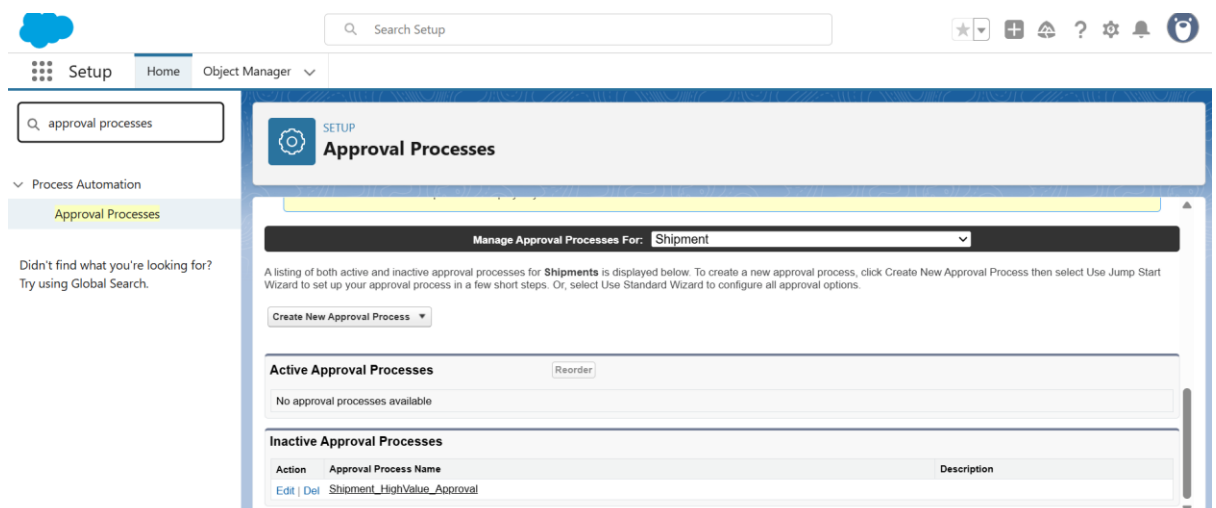
Step 5: a) Flow Builder — 4 flow types for ShipmentTrack

Use case recap: Collect feedback when a shipment is delivered via a simple screen in Lightning mobile/web.

Steps (create):

1. Setup → Flows → New Flow → Select Screen Flow → Create.

2. On Canvas: Add a Record Lookup/Get Records (optional) to get Shipment by Id if you plan to launch from a record page.

3. Add Screen element:

   o Components: Rating (choice or number), Long Text Area Feedback__c, Checkbox WouldRecommend__c.

   o Optionally include a hidden Text variable recordId (Input) to capture current Shipment Id.

4. After Screen, add Update Records element:

   o Update Shipment record with fields: Customer_Feedback__c = {!Feedback}, Rating__c = {!Rating}.

5. Save → Give it a name SF_Customer_Feedback → Activate.

6. Add to Shipment Record Page: Open a Shipment record → Gear icon → Edit Page (Lightning App Builder) → Add Flow component → select SF_Customer_Feedback → Set the input variable recordId = {!RecordId} → Save & Activate.

Step 5: b) Record-Triggered Flow — Auto update Status when Delivered_Date__c set

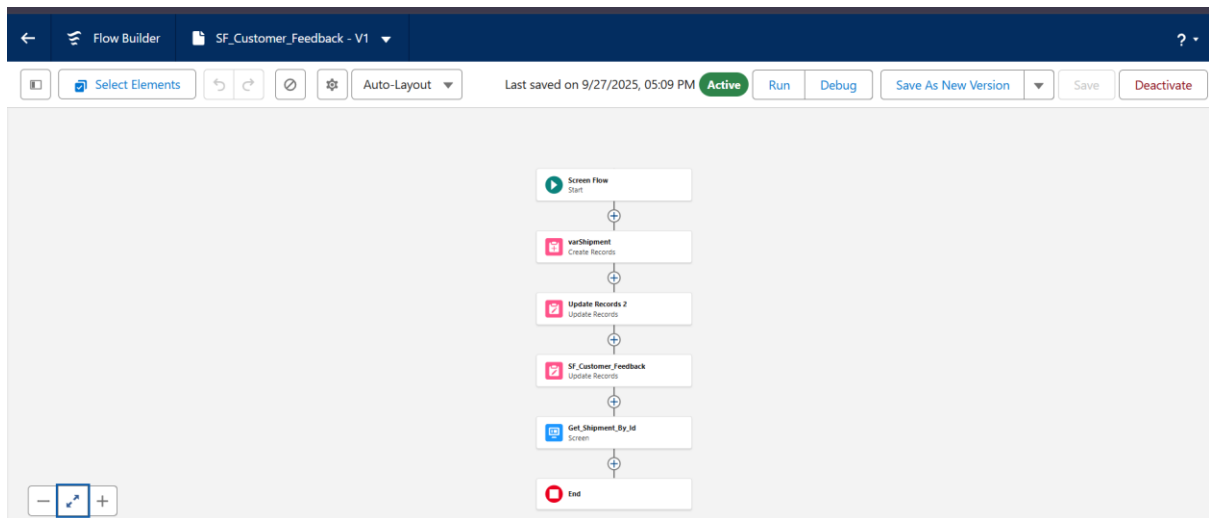Use case recap: When Delivered_Date__c is filled, set Status__c = Delivered.

Steps (create):

a) Screen Flow – Collect Customer Feedback

Use Case: After delivery, capture customer feedback via a screen in Lightning.
Steps:

o Setup → Flows → New Flow → Select **Screen Flow** → Create.

o Add **Screen element**:

o Fields: Rating, Feedback__c (Long Text), WouldRecommend__c (Checkbox)

o Add **Update Records**: update Shipment with feedback and rating.

o Save → Name: SF_Customer_Feedback → Activate.

o Add Flow to Shipment Record Page → Set input variable: recordId = {!RecordId} → Save & Activate.

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b) Record-Triggered Flow – Auto Update Status

Use Case: Automatically mark shipment as **Delivered** when
Delivered_Date__c is filled.
Steps:

o   Setup → Flows → New Flow → **Record-Triggered Flow** → Create.

o   Configure Trigger:

o   Object: Shipment

o   Trigger: Record Updated

o   Condition: Delivered_Date__c != null

o   Run Flow: After the record is saved

o   Add **Update Records**: set Status__c = 'Delivered' and
Delivery_Confirmation__c = TRUE.

o   Save & Activate.

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c) Scheduled Flow – Overdue Shipment Reminder

Use Case: Send daily reminders for shipments overdue.
Steps:

o   Setup → Flows → New Flow → **Scheduled Flow** → Create.

o   Set schedule: Daily at chosen time.

o   First element: **Get Records** → Shipment where

o   Expected_Delivery_Date__c < $Flow.CurrentDate

o   Status__c != 'Delivered'

- o Add **Loop** over records.

- o Inside Loop:

- o Send Email to Customer OR

- o Create Task for Logistics Manager.

- o End Loop → Save & Activate.

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d) Auto-Launched Flow – Reduce Inventory on Dispatch

Use Case: When a shipment is dispatched, automatically decrement inventory.
Steps:

- o Setup → Flows → New Flow → **Auto-Launched Flow** → Create.

- o Create input variable: var_ShipmentId (Text, Input Allowed).

- o **Get Records:** Shipment by Id → collect Product__c, Quantity__c.

- o **Get Records:** Inventory record matching Product__c.

- o **Update Records:** Inventory.Quantity__c = Inventory.Quantity__c – Shipment.Quantity__c.

- o Save & Activate.

- o Invoke Flow:

- o From **Process Builder** when Status__c = Dispatched, pass var_ShipmentId = [Shipment].Id

- o Or via Apex if needed.

Step 6: Email Alerts — (centralized reusable alerts)

Use case recap: Send an email when a shipment is marked Delayed, to customer + logistics manager.

Steps (create template + alert):

1. Setup → Email Templates → New (Lightning Template).

   - o Name: Shipment_Delayed_Template

   - o Subject & Body: include merge fields like {!Shipment.Tracking_Number__c}, reason and expected resolution.

2. Setup → Email Alerts → New Email Alert.

   - o Object: Shipment; Email Template: Shipment_Delayed_Template

o   Recipient Types: Related Contact (Customer), Users (Logistics Manager), Roles (if needed), Email Field (Customer_Email__c).

3. Wire the Email Alert into a Workflow/Process/Flow:

o   Example: Add to a Workflow Rule where Status__c = 'Delayed' → Add action = Email Alert, choose this / or call from Flow via Action.
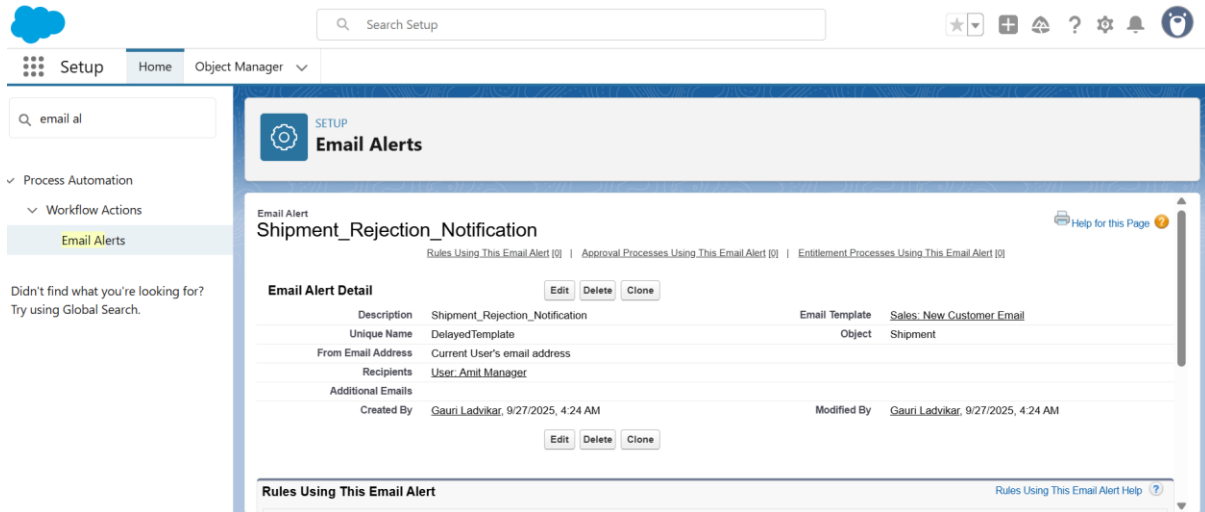
Step 7: Field Updates — Mark Delivery Confirmation True on Delivered

Use case recap: When Status__c = Delivered → set Delivery_Confirmation__c = TRUE.

Options to implement:

*   Use Workflow Field Update (via Workflow Rule), Process Builder record update, or Record-Triggered Flow update (recommended).

Steps via Record-Triggered Flow (recommended):

1. (See 5b Record-Triggered Flow): After detecting Delivered_Date__c filled, add Update Records set Delivery_Confirmation__c = TRUE.

2. Save → Activate.

Step 8: Tasks — Auto create task for Finance on high-value shipments

Use case recap: When Shipment_Value__c > 50000, create a Task for Finance to verify payment.

Steps (Process Builder or Flow):

1. In Process Builder (or Record-Triggered Flow): Add an action Create Records → Type: Task.

2. Task fields:

o   Subject: Verify Payment for High-Value Shipment

o   Status: Not Started

o   Priority: High

o   WhatId: [Shipment].Id

o   OwnerId: <Finance User or Queue> (use a Finance_Team__c Lookup field or hardcode User/Queue)

3. Save & Activate.

Step 9: Custom Notifications — Push notifications to mobile/desktop when delayed

Use case recap: Push a notification to Logistics team via Salesforce Mobile App when a shipment is delayed.

Steps (create notification type + send it):

1. Setup → Notification Builder → Notification Types → New.

    o   Label: Shipment_Delay_Notification

    o   Name: Shipment_Delay_Notification

    o   Channels: check In-App, Push (Mobile), Desktop as needed.

    o   Save.

2. To send: Use Flow (recommended) — In your Scheduled Flow / Record-Triggered Flow where status becomes Delayed add an Action:

    o   Action Type: Send Custom Notification (Search Send Custom Notification or use Action → Send Custom Notification).

    o   Notification Type: Shipment_Delay_Notification

    o   Recipient IDs: query users in Logistics role or use a User Lookup collection (e.g., users assigned to Logistics Manager role) — pass a collection of User IDs.

    o   Title: Shipment Delayed: {!Shipment.Tracking_Number__c}

    o   Body: Shipment expected on {!Shipment.Expected_Delivery_Date__c} is delayed.

    o   Target ID: Shipment.Id (so notification links to record)

3. Save & Activate Flow.

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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_Delay_Notification	Shipment_Delay_Notification		✓	✓	▾