Phase 4 – Process Automation (Admin)

Process Automation in Salesforce streamlines business operations, reduces manual effort, and ensures data consistency. This phase focuses on building robust, real-time solutions using Salesforce's native automation tools.

1. Validation Rules

Purpose
Validation Rules enforce data quality by preventing a record from being saved if it fails specified business criteria. They run whenever a record is created or updated—via the UI, API, Data Loader, or automation—ensuring that only complete and correct data enters Salesforce.

Key Benefits

- **Data Integrity:** Stops inaccurate or incomplete records before they impact reports or dashboards.
- **Compliance:** Enforces regulatory or internal policies (e.g., mandatory fields, date limits).
- **User Guidance:** Provides immediate, actionable error messages to end users.

Real-Time:
Scenario: Sales reps must set the Opportunity **Close Date** to today or a future date. Validation Formula: CloseDate < TODAY()
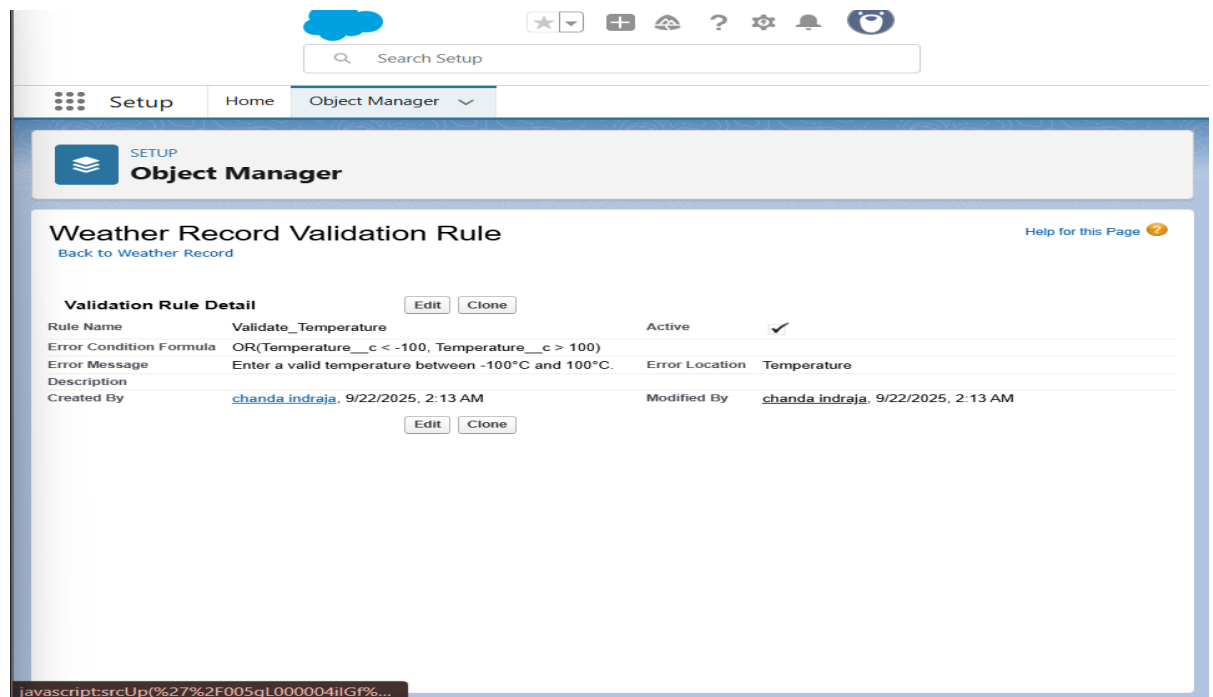
2. Workflow Rules

Purpose

Workflow Rules automate standard internal processes, allowing Salesforce to perform actions automatically when specific criteria are met.
They help reduce manual effort, improve response time, and ensure consistent business operations.

Key Benefits

- **Efficiency:** Automates routine tasks like sending emails or updating fields, freeing users to focus on high-value work.
- **Consistency:** Ensures that business rules are applied uniformly across all records.
- **Scalability:** Handles large volumes of records with minimal administrative overhead.

3. Process Builder

Purpose
Process Builder allows administrators to build complex, multi-step automation in Salesforce without code.
It supports multiple **if/then** branches and can call **Flows, Apex classes, or other processes**, enabling powerful end-to-end automation.

Real-Time Business Example – Rain Alert Level

Scenario: When a Weather Record indicates a high probability of rain, the system automatically sets the Alert Level to "High."
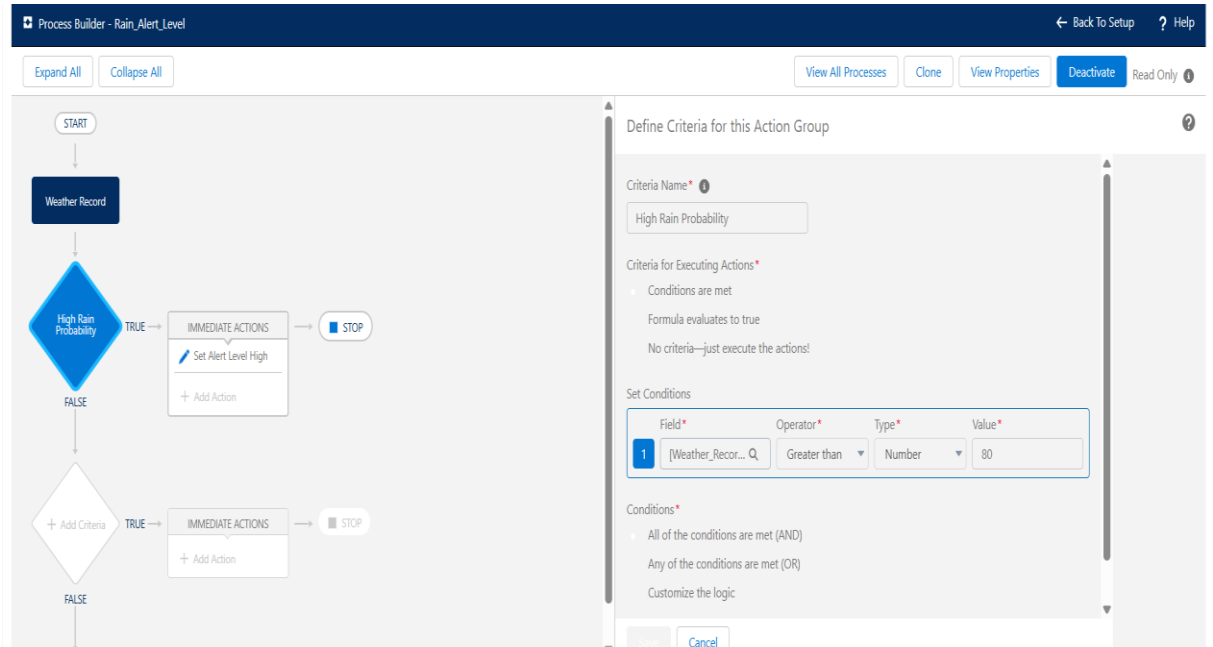
Key Configuration *:*

- **Object:** Weather Record
- **Criteria Name:** High Rain Probability
- **Condition:** `[Weather_Record__c].Rain_Probability__c > 80`
- **Immediate Action:** Update the Alert Level field to "High"

Core Features

- **Multiple Criteria Nodes:** Create separate decision branches for different conditions (e.g., Moderate or Low Rain Probability)

- **Immediate & Scheduled Actions:** Trigger field updates, email alerts, tasks, or invoke flows.
- **Integration Options:** Call an Apex class or launch an auto-launched flow for advanced logic.

4. Approval Process

Purpose

An Approval Process in Salesforce automates the routing of records to one or more users for review and sign-off.

It ensures that critical changes—such as pricing overrides, major discounts, or severe weather alerts—are properly authorized before finalization.

Real-Time Example – Severe Weather Approval

Business Requirement: When a Weather Record indicates **Severe Weather = TRUE**, it must be approved by the designated approver before any updates are allowed.

Key Configuration:

- **Process Name:** `Severe_Weather_Approval`
- **Entry Criteria:** `Weather_Record__c.Severe_Weather__c = TRUE`
- **Initial Submitter:** City Owner
- **Record Editability:** Administrator ONLY during approval
- **Approval Assignment Email Template:** *Severe Weather Alert*

Key Features

- **Record Locking:** Prevents edits while a record is under review.
- **Multi-Step Approvals:** Add sequential or parallel approval steps.
- **Automated Field Updates:** Update status fields (Pending, Approved, Rejected) automatically.
- **Notifications:** Email alerts to approvers and submitters.
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5. Flow Builder (Screen, Record-Triggered, Scheduled, Auto-launched)
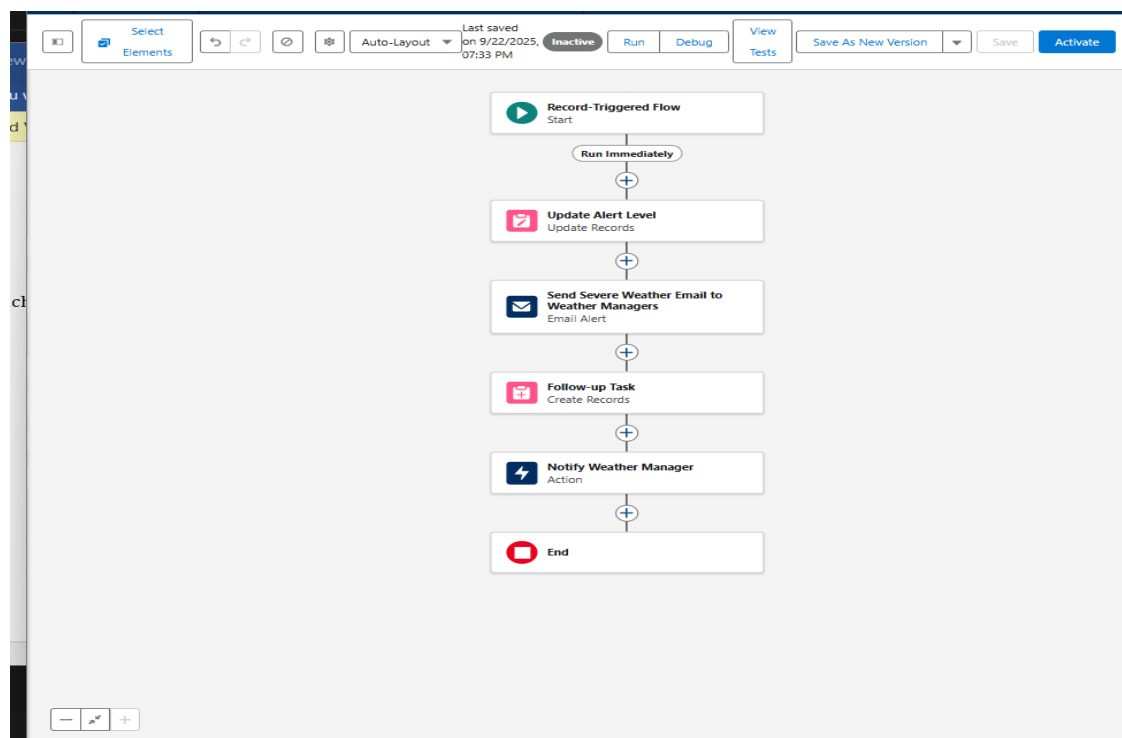
Purpose:
Flow Builder lets you automate business processes without code. It's flexible and can handle complex logic.

Types of Flows & Examples:

1. **Screen Flow** – Guides users step-by-step through a task.
   Example: Wizard to create a Case.
2. **Record-Triggered Flow** – Runs automatically when a record is created or updated.
   Example: Assign tasks when a new Lead is added.
3. **Scheduled Flow** – Runs at a specified time.
   Example: Send monthly renewal reminders.
4. **Auto-Launched Flow** – Runs in the background, often triggered by another process.
   Example: Update child records when a parent record changes..

Key Features:

- Automate tasks across Salesforce.
- Send **email notifications** to users.
- Update records, create new records, and perform calculations.
- Conditional logic and loops supported.

6.Email Alerts

Purpose:
Automatically send email notifications based on specific actions or criteria, without manual intervention.

Key Features:

- Uses **Email Templates** (Classic or Lightning) to standardize messages.
- Can be triggered by **Workflow Rules**, **Process Builder**, or **Flow Builder**.
- Can notify multiple recipients: Users, Roles, Contacts, or email addresses.
- Supports **dynamic fields** to personalize emails (e.g., customer name, order number).
- Works with **approvals**, **case updates**, **lead assignment**, and more.

Real-Time Examples:

- Notify a customer when an order is shipped.
- Alert a manager when a high-value opportunity is created.
- Send reminders for overdue tasks or approvals.

7.Field Updates

Purpose:

- Maintain data accuracy and consistency.
- Save user time by reducing manual updates.
- Trigger changes that influence other automation (workflows, flows, approval processes).

Use Cases:

- **Opportunity Management:** Automatically update the **Opportunity Stage** to "Closed Lost" when the "Competitor" field is filled in.
- **Case Management:** Update a **Case Status** to "Escalated" when the case priority is set to "High."
- **Lead Qualification:** Mark a **Lead Source** field to "Web" if the lead was created from a web form.

Benefits:

- Eliminates human errors in repetitive updates.
- Provides real-time record changes.
- Improves reporting accuracy.

8.Tasks

Definition:
Tasks are to-do items that Salesforce can automatically create for users when a specific trigger condition is met. These tasks help guide sales and service teams by ensuring they follow up on critical actions.

Purpose:

- Assign follow-up actions to users at the right time.
- Keep sales cycles moving and avoid missed opportunities.
- Standardize customer engagement processes.

Use Cases:

- **Lead Follow-Up:** When a new high-value lead is created, automatically assign a task for the sales rep to call within 24 hours.
- **Renewals:** When an opportunity is 30 days away from its close date, assign a task for the account manager to reach out to the client.
- **Customer Support:** When a case is reopened, create a task for a support agent to review it immediately.
- Reduces the risk of missed follow-ups.

9.Custom Notifications

Purpose:

- Improve response time for urgent matters.
- Keep users informed without relying solely on emails.
- Provide flexibility in how users receive alerts (desktop, mobile).

Use Cases:

- **Sales Alerts:** Notify sales reps instantly when a "Hot Lead" is assigned to them.
- **Case Management:** Alert support managers when a VIP customer's case is escalated.
- **Approvals:** Send a notification to a manager when a discount approval request is pending.

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