## Phase 4:

# **Process Automation (Admin)**

# 1) Why Automation?

Without automation, users would have to manually calculate CO<sub>2</sub> saved, assign badges, and send notifications. That's error-prone and boring. Automation ensures **consistency**, **efficiency**, **and engagement**.

#### 2) Validation Rules

Purpose: Prevent bad data entry.

Example: Trees must be > 0 for Tree Plantation

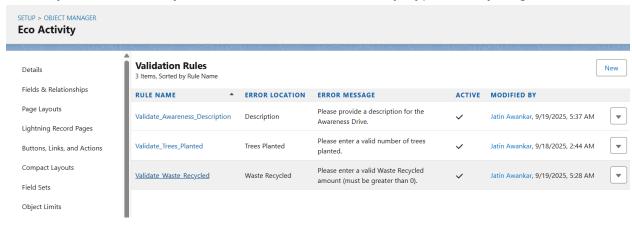
- Go to: Setup  $\rightarrow$  Object Manager  $\rightarrow$  Eco Activity  $\rightarrow$  Validation Rules  $\rightarrow$  New
- Rule Name: Validate\_Trees\_Planted

#### Formula:

```
AND(
ISPICKVAL(Activity_Type__c, "Tree Plantation"),
OR(ISBLANK(Trees_Planted_c), Trees_Planted_c <= 0)
)
```

• Error Message: "Please enter a valid number of trees planted."

Similarly, for Waste Recycled: must be > 0 when Activity Type = Recycling.



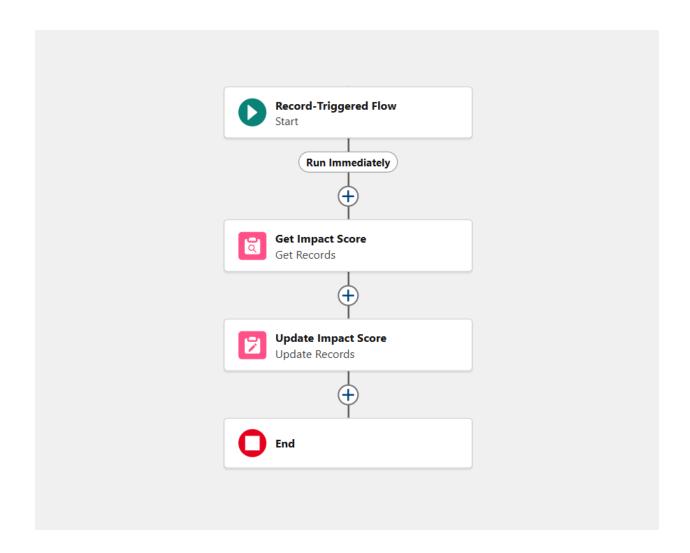
### 3) Flow Builder – CO<sub>2</sub> Calculation

**Purpose:** Auto-calculate CO<sub>2</sub> saved when an Eco Activity is created.

- Go to: Setup → Flow → New Flow → Record-Triggered Flow
- Object: Eco Activity
- Trigger: When record is created or updated
- Logic:

Formula for CO<sub>2</sub> saved = (Trees\_Planted\_\_c \* 21) + (Waste\_Recycled\_\_c \* 1.5)

o Update field CO2\_Saved\_c in Impact Score.

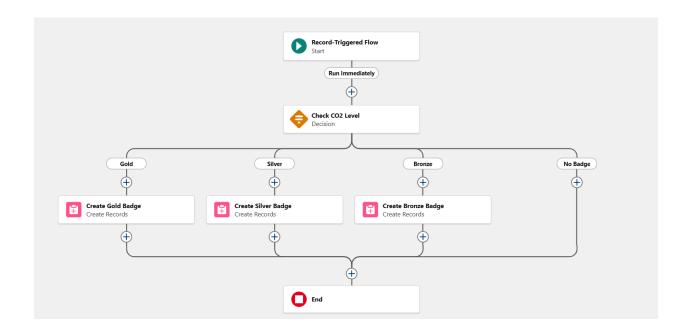


# 4) Flow Builder - Badge Assignment

**Purpose:** Award badges automatically when thresholds are met.

- Go to: Flow  $\rightarrow$  New Flow  $\rightarrow$  Record-Triggered Flow
- Object: Impact Score
- Trigger: When record updated
- Logic:
  - IF CO<sub>2</sub> Saved ≥ 1000 → Create Badge (Gold)

- o IF CO₂ Saved ≥ 500 → Create Badge (Silver)
- o ELSE IF CO₂ Saved ≥ 100 → Create Badge (Bronze)
- Assign the Badge to related User.

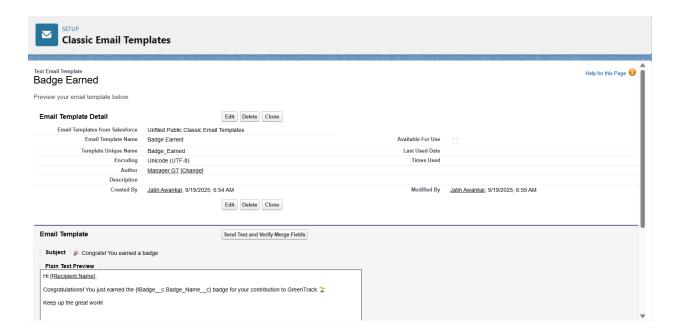


## 5) Email Alerts & Custom Notifications

Purpose: Motivate users.

#### 1. Email Alert:

- $\circ\quad \mathsf{Setup} \to \mathsf{Email}\;\mathsf{Alerts} \to \mathsf{New}.$
- Example: Send email "Congrats! You earned a badge" to the Participant when a Badge record is created.



#### 2. Custom Notification (Lightning):

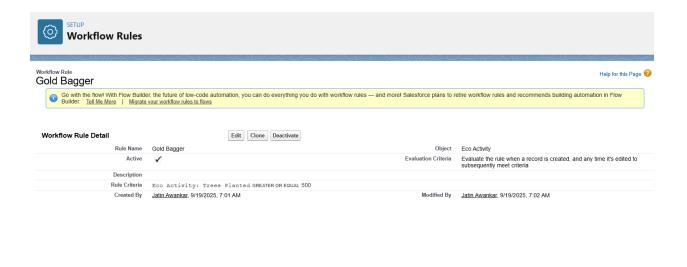
- Setup → Notification Builder → Custom Notifications.
- Create "GreenTrack Milestone Reached."
- Trigger via Flow → When a new Badge is assigned, send notification.

### 6) Workflow Rules / Process Builder

Note: Salesforce is moving away from Workflow Rules & Process Builder in favor of Flows.

Still, for academic completeness:

 Workflow Rule Example: Send email to NGO Manager when an Eco Activity > 500 Trees is logged.



#### 7) Approval Process (Optional)

- Example: Big activities (e.g., more than 1000 trees logged) → Require Manager approval before Impact Score updates.
- Setup → Approval Processes → New Approval Process.

## 8) Deliverables for Phase 4

- 1. Validation Rules: Tree Plantation, Recycling, etc.
- 2. Flows:
  - o CO<sub>2</sub> Calculation Flow.
  - Badge Assignment Flow.
  - Notification Flow.
- 3. Email Alerts & Custom Notifications.
- 4. Optional Workflow Rule / Approval Process.

# 9) Testing Checklist

- Log in as a Participant → Create Activity (Tree Plantation, 10 trees).
  - Verify CO₂ saved auto-calculated = 210kg.
- Log activity with 600 trees → Verify Silver Badge auto-assigned + email sent.
- Try entering invalid values → Validation Rule blocks.
- NGO Manager receives notification for large activity.