Phase 4:

Process Automation (Admin)

1) Why Automation?

Without automation, users would have to manually calculate CO₂ saved, assign badges, and send notifications. That's error-prone and boring. Automation ensures **consistency**, **efficiency**, **and engagement**.

2) Validation Rules

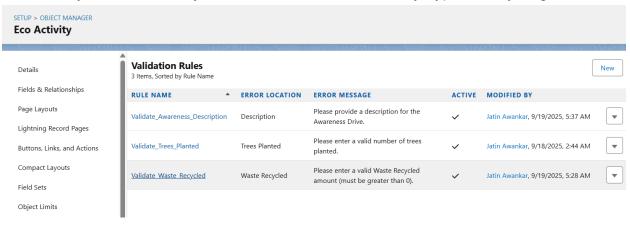
Purpose: Prevent bad data entry.

- ₱ 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)
)</pre>
```

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



3) Flow Builder – CO₂ Calculation

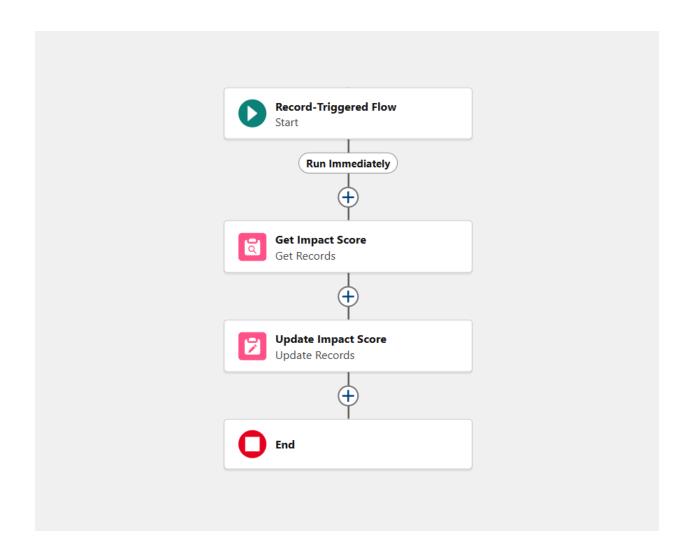
Purpose: Auto-calculate CO₂ saved when an Eco Activity is created.

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

Formula for CO₂ saved =

```
(Trees_Planted__c * 21) + (Waste_Recycled__c * 1.5)
```

o Update field C02_Saved__c in Impact Score.



4) Flow Builder – Badge Assignment

Purpose: Award badges automatically when thresholds are met.

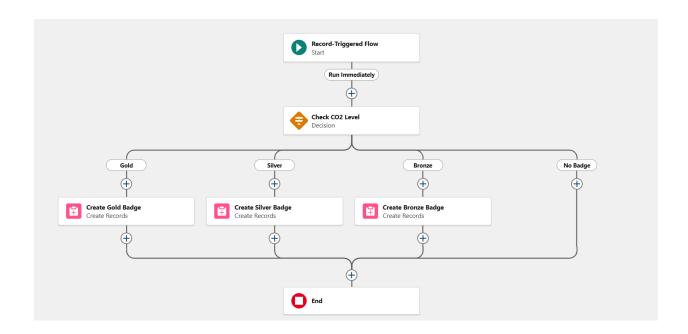
Go to: Flow → New Flow → Record-Triggered Flow

• Object: Impact Score

• Trigger: When record updated

Logic:

- o IF CO₂ 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.

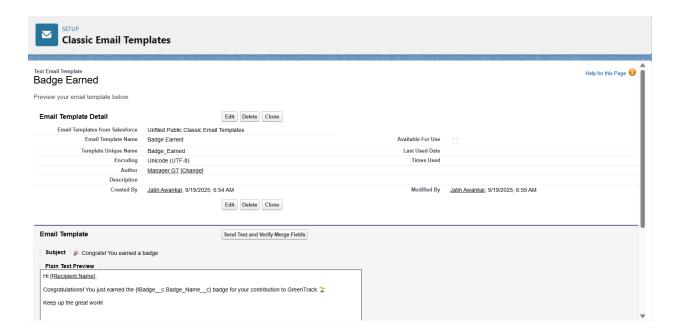


5) Email Alerts & Custom Notifications

Purpose: Motivate users.

1. Email Alert:

- Setup → Email Alerts → New.
- Example: Send email "Congrats! You earned a badge "" to the Participant when a Badge record is created.



2. Custom Notification (Lightning):

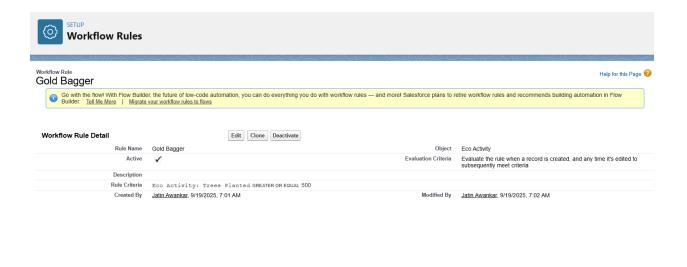
- Setup → Notification Builder → Custom Notifications.
- Create "GreenTrack Milestone Reached."
- Trigger via Flow → When a new Badge is assigned, send notification.

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 CO₂ 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.