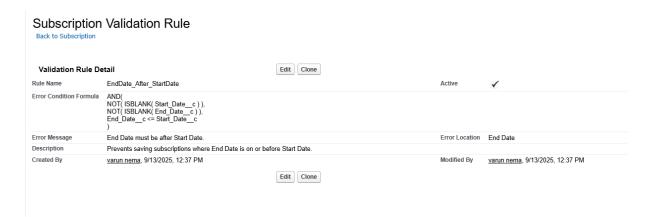
<u>Project Title – "Smart Subscription Tracker"</u>

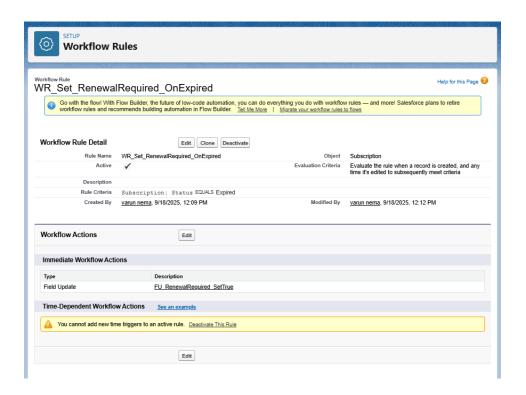
Phase 4: Process Automation (Admin)

Validation Rules: EndDate_After_StartDate



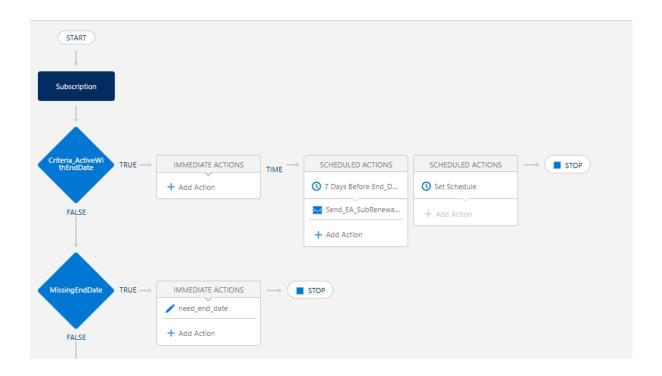
- 1. Purpose: Ensures End Date is always after Start Date in subscriptions.
- Formula: Checks both dates are entered and prevents saving if End Date
 ≤ Start Date.
- 3. **Error Message:** "End Date must be after Start Date." (shown on End Date field).
- 4. **Impact:** Improves data accuracy, avoids invalid subscription periods, prevents billing/customer issues.
- 5. **Best Practices:** Clear rule name, simple error message, documented description.

WorkFlow rule : WR_Set_RenewalRequired_OnExpired



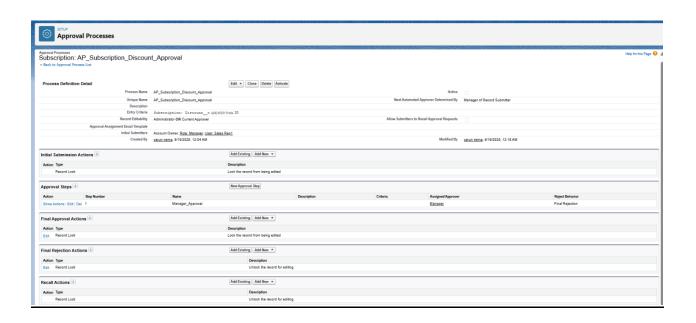
- 1. **Purpose:** Automates renewal tracking by marking subscriptions as requiring renewal when their status becomes *Expired*.
- 2. Rule Criteria: Subscription: Status = Expired.
- 3. **Action:** Immediate field update \rightarrow sets *RenewalRequired = True*.
- 4. **Impact:** Saves manual effort, ensures expired subscriptions are flagged for renewal, supports timely follow-ups.
- 5. **Best Practices:** Clear rule name, automated update, improves subscription lifecycle management.

Process Builder



- Purpose: Automates subscription renewal reminders by sending an email
 7 days before the End Date.
- 2. Object: Subscription (Subscription__c), triggered when a record is created or edited.
- 3. Criteria: Runs when:
- 4. End_Date__c is not blank,
- 5. Status c = Active,
- 6. Reminder_Sent__c = False.
- 7. Actions:
- 8. Scheduled (7 days before End Date): Send email alert *EA_SubRenewal_7d*.
- 9. (Optional) Update record \rightarrow set Reminder_Sent__c = True.
- 10. Impact: Ensures timely renewal reminders, reduces missed renewals, and improves customer retention.

4 Approval Process: AP_Subscription_Discount_Approval



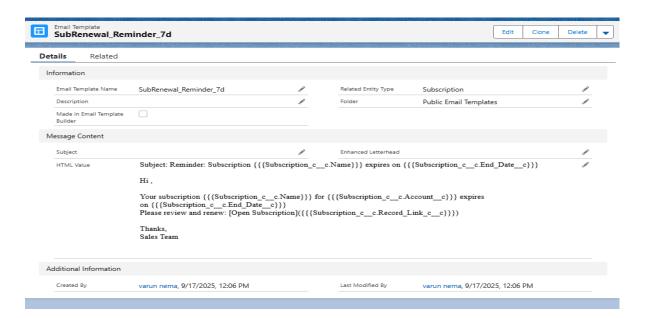
- 1. Objective: To control subscription discounts exceeding 20% by requiring manager approval, ensuring compliance with pricing policies.
- 2. Entry Criteria: Discount c > 20.
- 3. Initial Submitters: Account Owner, Managers, Sales Reps.
- 4. Initial Submission Action:
 - a. Record is locked to prevent edits during review.
 - b. (Optional) Status set to *Pending Approval* and email sent to approver.
- 5. Approval Steps:
 - a. Step 1: Manager approval is required.
 - b. If approved \rightarrow moves to Final Approval Actions.
 - c. If rejected \rightarrow moves to Final Rejection Actions.
- 6. Final Approval Actions:
 - a. Status updated to Approved.
 - b. Record remains locked (or unlocked if configured).
 - c. Notification can be sent to submitter.
- 7. Final Rejection Actions:
 - a. Status updated to Rejected.
 - b. Record unlocked for further editing if needed.
 - c. Recall Actions:

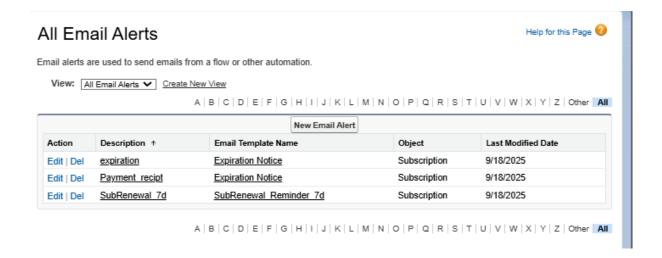
- d. If recalled, record is unlocked and editable again.
- e. Impact:
- f. Prevents unauthorized or excessive discounts.
- g. Automates approval routing to managers.
- h. Enhances compliance, accountability, and audit tracking through Approval History.

Flow builder

I have implemented Flow Builder to configure, Custom Notifications, and Task automation. The respective screenshots have been included for reference.

Email alerts





1. Email Alert Configuration

To automate renewal reminders, an **Email Alert** was created in Salesforce. This reusable action links an email template to recipients and can be triggered by Flows or other automation tools.

Alert Name: EA_SubRenewal_7d

Object: Subscription__c

• Email Template: SubRenewal_Reminder_7d (Lightning Email Template)

• **Sender Address:** Org-Wide Email Address (ensures consistent communication)

• **Recipients:** Subscription Owner and related Primary Contact (custom field).

 Purpose: Ensures renewal reminders are sent in a standardized, timely manner.

2. Integration with Record-Triggered Flow

A **Record-Triggered Flow** was built to send reminders seven days before the subscription End Date.

• Trigger: Subscription c created or updated.

- Entry Conditions: End_Date__c is not null and Status__c = 'Active'.
- Scheduled Path: Executes 7 days before End_Date__c.
- Action: Calls the Email Alert (EA_SubRenewal_7d), passing the Subscription record Id.
- Duplicate Prevention: Reminder_Sent__c flag is updated to TRUE after sending.

This ensures that each active subscription automatically generates a renewal reminder exactly one week before expiry.

3. Integration with Scheduled-Triggered Flow

A **Scheduled-Triggered Flow** was also developed to handle bulk processing of reminders.

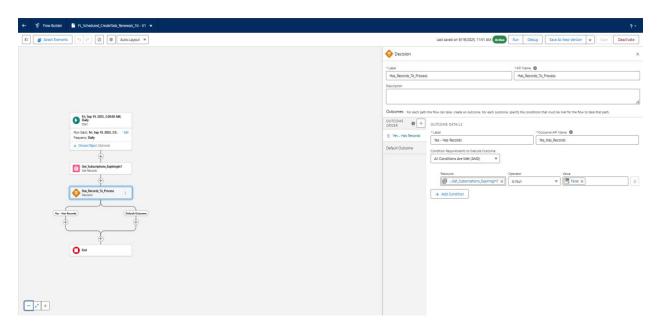
- Schedule: Runs daily at a fixed time.
- **Query Logic:** Retrieves all Subscription__c records where:
 - o End_Date__c = Today + 7
 - Status__c = Active
 - Reminder_Sent__c = FALSE
- **Loop Logic:** For each qualifying record:
 - Sends the Email Alert EA SubRenewal 7d.
 - Updates Reminder Sent c = TRUE to avoid duplicates.
- Bulk Update: Records are updated in a collection for efficiency.

This approach complements the record-triggered flow by ensuring no subscription is missed, even if End Dates were updated historically.

Field Updates

Field Updates were not used because they are **deprecated**, have **limited flexibility** (can only set simple values), and are being replaced by **Flows**, which provide more advanced, scalable, and future-proof automation.





To automate reminders for upcoming subscription renewals, I implemented a **Scheduled Flow** on the Subscription__c object. This flow automatically creates **Tasks** for subscription owners 7 days before the subscription end date and ensures duplicate reminders are not sent.

Pre-Setup

Before building the flow, the following fields were confirmed/created on Subscription c:

- End_Date__c (Date) Subscription expiry date.
- OwnerId (standard owner field).
- Primary_Contact__c (Lookup to Contact) optional but useful for linking.
- Reminder_Sent__c (Checkbox, default = False) prevents duplicate reminders.
- **Record_Link__c** (Formula field) optional hyperlink to the record for task description.

Flow Configuration Steps

1. Create Scheduled Flow

 \circ Setup \rightarrow Flows \rightarrow New Flow \rightarrow Scheduled-Triggered Flow.

Frequency: Daily | Start Time: 2:00 AM.

2. Get Records

- Retrieve Subscription__c records where:
 - End_Date__c = Today + 7
 - Status c = Active
 - Reminder Sent c = False
- Store all records in a collection.

3. Decision Element

- Check if any records were retrieved.
- \circ If none \rightarrow end flow.
- $_{\circ}$ If yes \rightarrow proceed to loop.

4. Loop Through Subscriptions

- o Iterate through each subscription record in the collection.
- 5. Create Task (inside loop)
 - o **Subject**: Call customer about subscription renewal.
 - o **OwnerId**: Subscription Owner.
 - WhatId: Subscription record Id.
 - o Whold: Primary Contact (if available).
 - Due Date: Today (7 days before expiry).
 - Status: Not Started.
 - o **Priority**: High.
 - Description: Includes Subscription Name, End Date, and Record Link.

6. **Update Subscription** (inside loop)

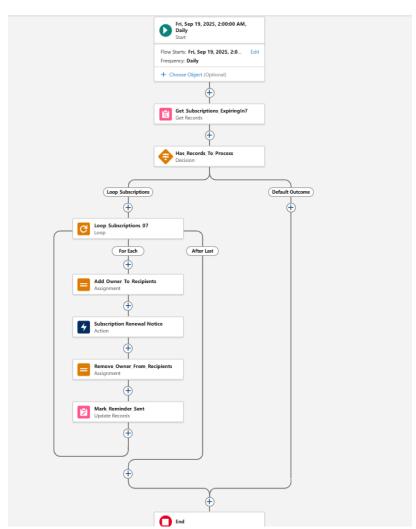
- Update field Reminder_Sent__c = True to prevent duplicate reminders.
- 7. End Loop & Activate Flow

- Save as FL_Scheduled_CreateTask_Renewals_7d.
- Activate flow.

Outcome

This flow ensures that subscription owners receive a **high-priority Task reminder** exactly 7 days before the subscription expires, improving renewal management and reducing missed follow-ups.

Lesson notification



To enhance subscription management, I created a **Custom Notification Type** and a **Scheduled Flow** to automatically notify subscription owners 7 days before a subscription's End Date. This ensures proactive follow-up and improves renewal efficiency.

Step 1: Create a Custom Notification Type

- **Navigation**: Setup \rightarrow Notification Builder \rightarrow Notification Types \rightarrow New.
- Details:
 - o Label: Subscription Renewal Notice
 - API Name: Subscription_Renewal_Notice
 - Supported Channels: Desktop, Mobile, and In-App (bell icon).
 - Description: Notification for upcoming subscription renewals.
- **Result**: Notification type is now available for use in Flows and Approval Processes.

Step 2: Build the Scheduled Flow

1. Flow Setup

- \circ Setup → Flows → New Flow → Scheduled-Triggered Flow.
- Frequency: Daily | Start Time: 2:00 AM.

2. Get Subscriptions to Notify

- Object: Subscription__c.
- Criteria:
 - End_Date__c = Today + 7
 - Status c = Active
 - Reminder Sent c = False
- Store all matching records in a collection.

3. Decision Check

- o If records exist → continue.
- \circ If none \rightarrow end flow.

4. Loop Through Records

Iterate through each subscription in the collection.

5. Recipient Collection Setup

- Create a Text Collection Variable (RecipientIDs).
- Add Subscription Owner (Ownerld) into this collection.

6. **Send Custom Notification** (inside loop)

- Notification Type: Subscription Renewal Notice.
- Title: Subscription expiring in 7 days: {!Subscription__c.Name}
- Body: Ends on {!Subscription__c.End_Date__c}. Open subscription for details.
- Target Id: Subscription record Id.
- Recipient Ids: RecipientIDs collection.

7. Cleanup Recipients

 Remove the owner from RecipientIDs after each loop to avoid carry-over.

8. Update Subscription

 Set Reminder_Sent__c = True for each processed subscription to prevent duplicates.

9. Activate Flow

 Saved as FL_Sched_CustomNotification_Renewal_7d and activated.

Outcome

This automation sends a **real-time Salesforce in-app and mobile notification** to subscription owners 7 days before renewal, helping them take timely action. The system also updates each subscription to avoid duplicate notifications.