

# Project: EduLink Student & Course Management System

## Phase 4: Process Automation (Admin)

**Goal:** The goal of this phase is to automate key administrative and academic processes within the EduLink system. By leveraging Salesforce's automation tools, we ensure data integrity with validation rules, deliver timely communications with email alerts, and streamline complex tasks like course approvals and student onboarding, significantly reducing manual effort.

### 1. Validation Rules

To ensure high-quality data entry, four key validation rules were implemented across various objects.

- **Object:** Contact
  - **Rule:** Valid\_Student\_Email
  - **Condition:** Checks if the email format is valid using a REGEX formula.
  - **Error Message:** "Please enter a valid email address."
- **Object:** Course\_\_c
  - **Rule:** Course\_Code\_Format
  - **Condition:** Ensures the course code matches a "AA###" format (e.g., CS101) using a REGEX formula.
  - **Error Message:** "Course code must be in format: 2-4 letters followed by 3 digits (e.g., CS101)."
- **Object:** Course\_\_c
  - **Rule:** EndDate\_After\_StartDate
  - **Condition:** End\_Date\_\_c <= Start\_Date\_\_c
  - **Error Message:** "End Date must be after the Start Date."
- **Object:** Assignment\_\_c
  - **Rule:** Assignment\_Due\_Date\_Future
  - **Condition:** Due\_Date\_\_c < NOW()
  - **Error Message:** "Assignment due date must be in the future."

## 2. Workflow Rules (Legacy)

As a learning exercise, one time-based workflow rule was created using the legacy automation tool.

- **Object:** Assignment\_\_c
- **Rule Name:** Assignment Reminder
- **Criteria:** DATEVALUE(Due\_Date\_\_c) = TODAY() + 3
- **Action:** Triggers an Email Alert three days before the assignment's due date.

The screenshot shows the 'Workflow Rules' page in the Salesforce Setup. A new rule is being edited, with the following details:

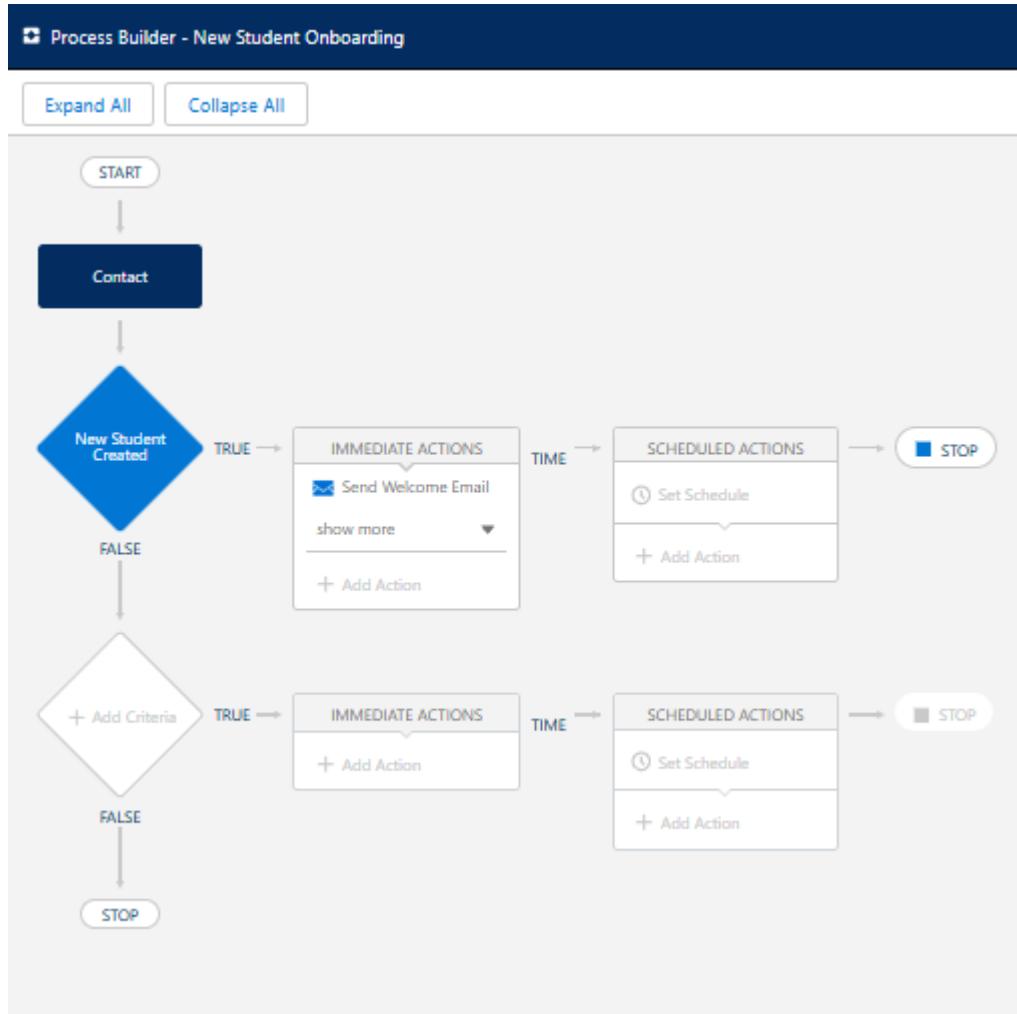
- Edit Rule**:
  - Object: Assignment
  - Rule Name: Assignment Reminder
  - Description: (empty)
- Evaluation Criteria**:
  - Evaluate the rule when a record is:
    - created
    - created, and every time it's edited
    - created, and any time it's edited to subsequently meet criteria (info icon)
  - How do I choose?
- Rule Criteria**:
  - Run this rule if the **formula evaluates to true**: `DATEVALUE(Due_Date__c) = TODAY() + 3`
  - Example: `OwnerId <> LastModifiedBy` {0} evaluates to true when the person who last modified the record is not the record owner. [More Examples...](#)
  - Functions dropdown: **-- All Function Categories --**
    - ABS
    - ACOS
    - ADDMONTHS
    - AND

## 3. Process Builder (Legacy)

To understand legacy automation, one process was built in Process Builder.

- **Object:** Contact
- **Process Name:** New Student Onboarding
- **Criteria:** Triggers when a new Contact record is created.
- **Actions:**
  - **Email Alert:** Sends the "Welcome New Student" email.

- **Create Task:** Creates a follow-up task for the record owner, due the next day.



#### 4. Approval Process

A multi-step approval process was created to manage the activation of new courses.

- **Object:** Course\_\_c.
- **Process Name:** New\_Course\_Approval
- **Entry Criteria:** Status = "Pending Approval" AND Credits > 3.
- **Steps:**
  - **Initial Submission:** The record is locked from editing.
  - **Step 1:** Assigned to a user with the **Department Head** role for initial review.

- **Step 2:** If approved, assigned to a user with the **Academic Director** role for final approval.
- **Actions:**
  - **Final Approval:** The record's Status is updated to "Active."
  - **Final Rejection:** The record's Status is updated to "Rejected."

 **SETUP**  
**Approval Processes**

Approval Processes  
Course: New\_Course\_Approval  
[« Back to Approval Process List](#)

Process Definition Detail		<a href="#">Edit</a> ▾	<a href="#">Clone</a>	<a href="#">Deactivate</a>
Process Name	New_Course_Approval	Active <input checked="" type="checkbox"/>		
Unique Name	New_Course_Approval	Next Automated Approver Determined By		
Description				
Entry Criteria	(Course: Status EQUALS Pending Approval) AND (Course: Credits GREATER THAN 3)			
Record Editability	Administrator ONLY	Allow Submitters to Recall Approval Requests <input type="checkbox"/>		
Approval Assignment Email Template				
Initial Submitters	Course Owner			
Created By	Sanya Agrawal, 9/22/2025, 10:42 AM	Modified By Sanya Agrawal, 9/22/2025, 11:00 AM		

**Initial Submission Actions** [i](#) [Add Existing](#) [Add New](#) ▾

Action	Type	Description
Record Lock		Lock the record from being edited

**Approval Steps** [i](#)

Action	Step Number	Name	Description	Criteria	Assigned Approver	Reject Behavior
Show Actions	Edit 1	Department Head Approval			User Sanya Agrawal	Final Rejection

**Final Approval Actions** [i](#) [Add Existing](#) [Add New](#) ▾

Action	Type	Description
Edit	Record Lock	Lock the record from being edited
Edit   Remove	Field Update	Set Approval Status to Approved
Edit   Remove	Field Update	Set Status to Active

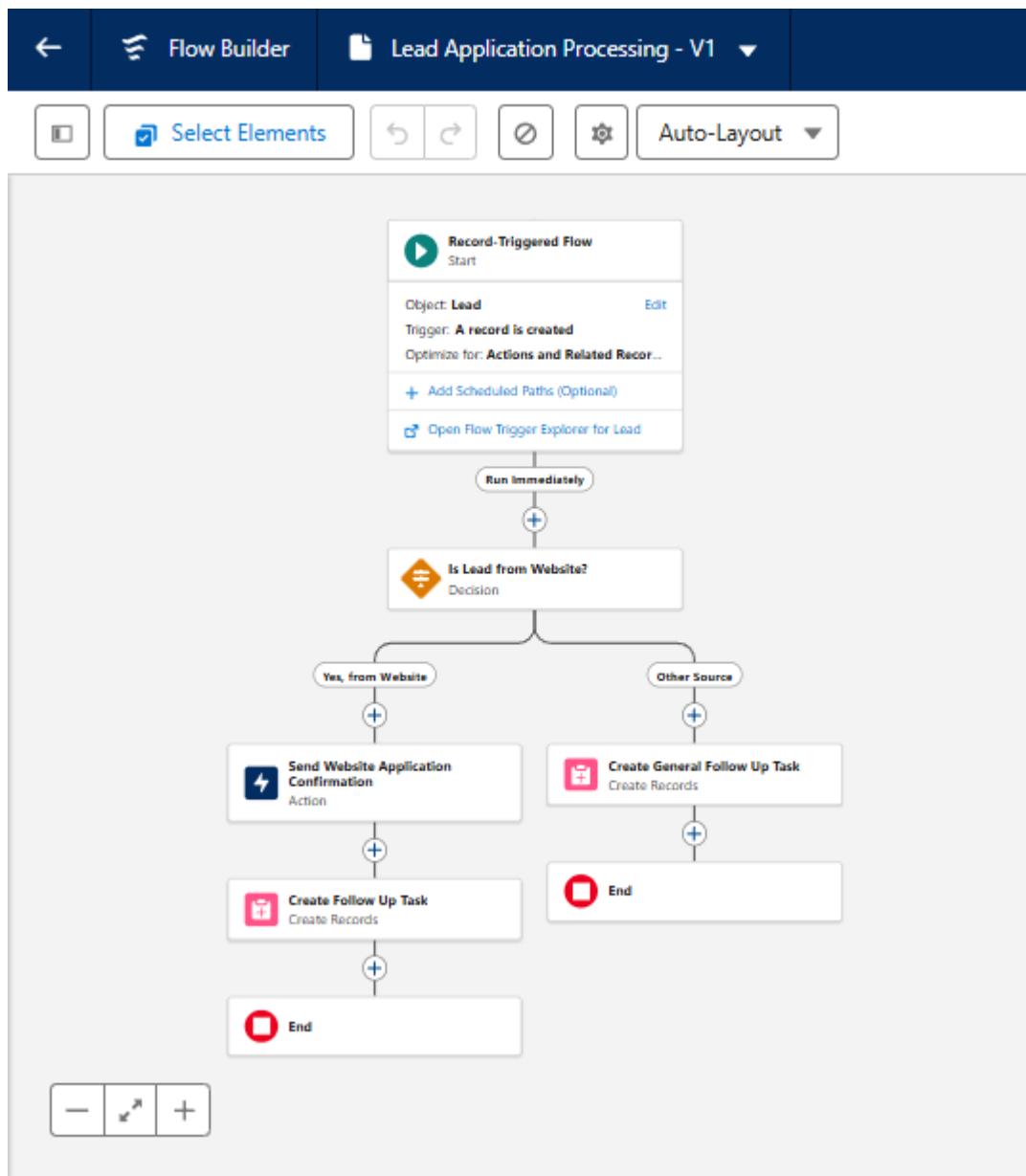
**Final Rejection Actions** [i](#) [Add Existing](#) [Add New](#) ▾

Action	Type	Description
Edit	Record Lock	Unlock the record for editing
Edit   Remove	Field Update	Set Approval Status to Rejected

## **5. Flow Builder**

Three sophisticated automations were built using the modern Flow Builder, representing the core logic of the system.

- **a) Record-Triggered Flow: Lead Application Processing**
  - **Object:** Lead
  - **Trigger:** When a new Lead is created.
  - **Logic:** Uses a **Decision** element to check if the Lead Source is "Website."
    - **If Yes:** Sends a confirmation email and creates a specific follow-up task.
    - **If No:** Creates a general follow-up task.
- **b) Record-Triggered Flow: Automatic Student Enrollment**
  - **Object:** Contact
  - **Trigger:** When a Contact's Student Status is updated to "Approved."
  - **Actions:**
    - Automatically creates a new, related Enrollment\_\_c record.
    - Sends the "Welcome New Student" email alert.



## 6. Email Alerts & Templates

A suite of email templates and corresponding alerts were created to support the automation processes.

**Path:** Setup → Classic Email Templates / Setup → Email Alerts

- **Templates Created:**
- 1. Welcome\_New\_Student

**SETUP**

## Classic Email Templates

Email Template Detail

Email Templates from Salesforce	EduLink Templates	<a href="#">Edit</a>	<a href="#">Delete</a>	<a href="#">Clone</a>
Email Template Name	Welcome_New_Student	Available For Use	<input checked="" type="checkbox"/>	
Template Unique Name	Welcome_New_Student	Last Used Date		
Encoding	Unicode (UTF-8)	Times Used		
Author	Sanya Agrawal [Change]			
Description				
Created By	Sanya Agrawal, 9/22/2025, 9:30 AM	Modified By	Sanya Agrawal, 9/22/2025, 9:30 AM	

[Edit](#) [Delete](#) [Clone](#)

Email Template

[Send Test and Verify Merge Fields](#)

Subject | Welcome to EduLink - Your Learning Journey Begins!

Plain Text Preview |

Dear {!Contact.FirstName},

Welcome to EduLink! We're excited to have you join our learning community.

Your contact details:

Email: {!Contact.Email}  
Phone: {!Contact.Phone}

Our support team will contact you within 24 hours to guide you through the next steps.

Best regards,  
EduLink Admissions Team

Activate Wi  
Go to Settings t

## 2. New\_Assignment\_Created

**SETUP**

## Classic Email Templates

Email Template Detail

		<a href="#">Edit</a>	<a href="#">Delete</a>	<a href="#">Clone</a>
Email Templates from Salesforce	<a href="#">EduLink Templates</a>			
Email Template Name	New_Assignment_Created	Available For Use	<input checked="" type="checkbox"/>	
Template Unique Name	New_Assignment_Created	Last Used Date		
Encoding	Unicode (UTF-8)	Times Used		
Author	<a href="#">Sanya Agrawal (Change)</a>			
Description				
Created By	Sanya Agrawal, 9/22/2025, 9:31 AM	Modified By	Sanya Agrawal, 9/22/2025, 9:31 AM	

[Edit](#) [Delete](#) [Clone](#)

Email Template

[Send Test and Verify Merge Fields](#)

Subject | New Assignment: {!Assignment\_\_c.Name}

Plain Text Preview

Hello Students,

A new assignment has been created for your course.

Assignment Details:

Course: {!Assignment\_\_c.Course\_\_c}  
Due Date: {!Assignment\_\_c.Due\_Date\_\_c}  
Max Points: {!Assignment\_\_c.Max\_Points\_\_c}

Please log into your student portal for complete details.

Best regards,

Activate Win  
Go to Settings to

### 3. Assignment\_Reminder

The screenshot shows the 'Classic Email Templates' page in Salesforce. At the top, there's a 'Text Email Template' section for 'Assignment\_Reminder'. Below it, the 'Email Template Detail' section provides the following information:

Email Templates from Salesforce	EduLink Templates
Email Template Name	Assignment_Reminder
Template Unique Name	Assignment_Reminder
Encoding	Unicode (UTF-8)
Author	Sanya Agrawal [Change]
Description	
Created By	Sanya Agrawal, 9/22/2025, 11:03 AM
Modified By	Sanya Agrawal, 9/22/2025, 11:06 AM

Buttons for 'Edit', 'Delete', and 'Clone' are located at the top right of the detail section. Below the detail section, there's a preview area titled 'Email Template' with a 'Plain Text Preview' section containing the following text:

| Subject | Reminder: Assignment Due Soon - {!Assignment\_\_c.Name}  
| Plain Text Preview |  
This is a reminder that the assignment "{!Assignment\_\_c.Name}" for your course "{!Assignment\_\_c.Course\_\_r.Name} is due in 3 days on "{!Assignment\_\_c.Due\_Date\_\_c}.

On the right side of the preview area, there are buttons for 'Activate Window' and 'Go to Settings to act'.

## 7. Field Updates & Tasks

The automation processes were configured to automatically update fields and create tasks to ensure data consistency and prompt user action.

- **Field Updates:**
  - Enrollment\_\_c.Status\_\_c is updated to "Completed" by a flow.
  - Course\_\_c.Status\_\_c is updated to "Active" or "Rejected" by the approval process.
- **Tasks:**
  - A follow-up task is created for new students by the Process Builder.
  - A follow-up task is created for new leads by the Lead Application Processing flow.

## Testing & Validation

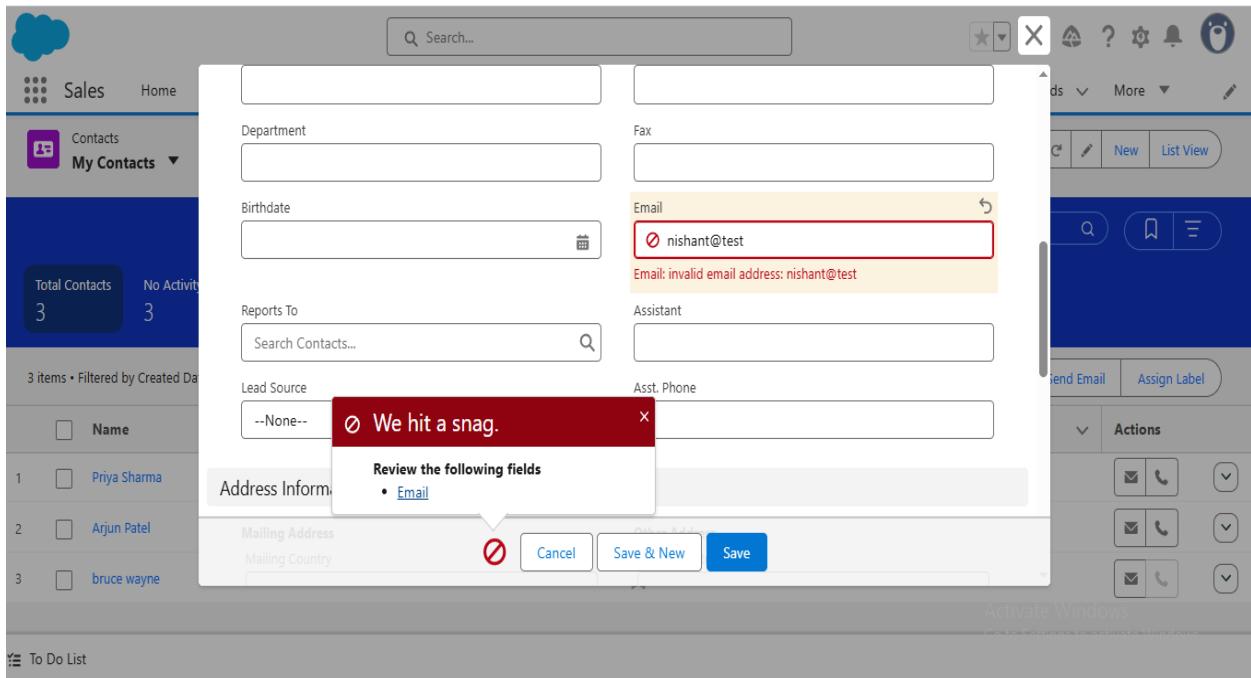
To conclude the phase, a series of tests were designed and executed to ensure all automations function correctly, interact as expected, and maintain data integrity.

### Scenario 1: New Student Application & Onboarding

This test verifies the entire process from a new application to an enrolled student.

- **Validation Test:**

- **Action:** Attempted to create a Contact record with an invalid email format (e.g., "test@test").
- **Result:** The `Valid_Student_Email` validation rule successfully fired and prevented the record from being saved.



### Automation Test (Contact):

- **Action:** Created a new Contact record.
- **Result:** The New Student Onboarding Process Builder fired, successfully sending the welcome email and creating a follow-up task.
- **Action:** Updated the new Contact's Student Status to "Approved".
- **Result:** The Automatic Student Enrollment flow fired, successfully creating a related Enrollment\_\_c record.

The screenshot shows an email inbox interface with a single message highlighted. The message is from 'Sanya Agrawal' (via x3n63q7fgpyu5c.gl-7wnrbaus.can98.bnc.salesforce.com) and is dated 'Mon 22 Sept, 23:51 (12 hours ago)'. The subject of the email is 'Welcome to EduLink - Your Learning Journey Begins!'. The email body contains a greeting, details about the recipient's contact information, and a note from the support team. The interface includes standard email controls like back, forward, delete, and search at the top, and a toolbar with icons for reply, forward, and more below the message preview.

Welcome to EduLink - Your Learning Journey Begins! Inbox x

◆ Summarise this email

 **Sanya Agrawal** via x3n63q7fgpyu5c.gl-7wnrbaus.can98.bnc.salesforce.com  
to me ▾

Mon 22 Sept, 23:51 (12 hours ago) ☆ 😊 ✉ ⋮

Dear bruce,

Welcome to EduLink! We're excited to have you join our learning community.

Your contact details:  
 Email: [agrawalsanya008@gmail.com](mailto:agrawalsanya008@gmail.com)  
 Phone:

Our support team will contact you within 24 hours to guide you through the next steps.

Best regards,  
 EduLink Admissions Team

## Scenario 2: Course Creation & Approval

### Approval Process Test:

- **Action:** Created a Course with Credits = 4 and Status = "Pending Approval", then clicked "Submit for Approval".
- **Result:** The record was successfully submitted and locked. The approval was routed sequentially to users in the Department Head and Academic Director roles. After final approval, the Status field on the Course record was automatically updated to "Active".

 Process Instance Step  
**Course Approval** Approved

Submitter	Date Submitted	Actual Approver	Assigned To
Sanya Agrawal	Sep 22, 2025	Sanya Agrawal	Sanya Agrawal

**Details**

Approval Details

Course Name	Owner
Maths	Sanya Agrawal
Course Code	Credits
CS105	4.0
Start Date	End Date
Department	Instructor

 [To Do List](#)