Smart College CRM – Student Management System on Salesforce

Phase 4: Process Automation (Admin)

**Goal:To automate student management processes such as admissions, fee tracking, course enrollment, and notifications, in order to reduce manual work, improve data accuracy, and provide timely alerts to students, staff, and administrators.**

**1. Introduction**

In this phase, we implement automation features in Salesforce to streamline college administrative operations. The goal is to **minimize manual tasks, improve accuracy, and ensure timely notifications** for users such as **Admission Officers, Finance Officers, Faculty, and Students**. Salesforce provides multiple automation tools, which we apply to enforce business rules, trigger actions, and guide the student lifecycle from application to fee payment and course enrollment.

**2. Preparation**

Before building automation, we must:

* Enable **Email Deliverability** (All Email) in **Setup → Deliverability**.
* Create **Lightning Email Templates** for admission confirmation, fee reminders, and course enrollment updates.
* Configure **Custom Notification Types** for real-time alerts (e.g., Fee Payment Success, Admission Approved).
* Create **Sample Records** for Students, Applications, Courses, and Fees to test automation.

**3. Automation Components**

**A. Validation Rules**

**Purpose:** Ensure data integrity by restricting incorrect or incomplete data entry.  
**Example Rules in Project:**

* Prevent Student record creation without valid Email.
* Ensure Fee Amount > 0.
* Prevent duplicate Enrollment Numbers per student.  
   Ensures clean and consistent data before saving records.

**B. Workflow Rules**

**Purpose:** Automate simple “if-then” actions based on record changes.  
**Example Use Cases:**

* When an Application is approved → send confirmation email to Student.
* When Fee Due Date approaches → notify Student and Finance Officer.  
   Automates routine alerts and field updates.

**C. Process Builder**

**Purpose:** Handle more advanced automation with multiple conditions and actions.  
**Example Use Case:**

1. When a new Student record is created → Status = “Pending Admission”.
2. Assign Task to Admission Officer to review application.
3. Send Custom Notification to the Student.  
    Provides multi-step logic in one process.

**D. Approval Process**

**Purpose:** Automate approvals for sensitive processes.  
**Example Use Case:**

* A Student Application requires **Admin approval** before admission confirmation.
* **Approval Path:** Admission Officer reviews → Approve (Status = Approved) / Reject (Status = Rejected).
* Notifications sent at each step.  
   Ensures quality control for student admissions.

**E. Flow Builder**

**Purpose:** Flexible automation for complex scenarios.  
**Types used in project:**

* **Record-Triggered Flow:** When Fee is paid, update Fee Status to “Paid”.
* **Screen Flow:** Guided Student Registration Wizard for new admissions.
* **Scheduled Flow:** Send Fee Reminder emails/SMS 5 days before Due Date.
* **Auto-Launched Flow:** Triggered by Process Builder to send course enrollment notifications.  
   Flows provide comprehensive automation across student lifecycle.

**F. Email Alerts**

**Purpose:** Automatically send emails based on triggers.  
**Example Use Cases:**

* On Admission Approval → Send confirmation email with enrollment details.
* On Fee Reminder → Send “Your fee is due soon” email.
* On Course Enrollment → Send course start notification.  
   Keeps students and staff informed.

**G. Field Updates**

**Purpose:** Auto-update fields to reduce manual work.  
**Example Use Cases:**

* When Fee Payment is received → Fee Status = “Paid”.
* When Application is approved → Admission Status = “Enrolled”.  
   Maintains accurate record statuses automatically.

**H. Tasks**

**Purpose:** Automatically create tasks for staff or admins.  
**Example Use Cases:**

* When a new Application is submitted → Admission Officer gets task to review.
* When a Fee Due Date is approaching → Finance Officer gets follow-up task.  
   Ensures operational tasks are not missed.

**I. Custom Notifications**

**Purpose:** Provide real-time in-app alerts.  
**Example Use Cases:**

* Student receives notification when admission is approved.
* Finance Officer receives notification when payment is pending.
* Faculty receives notification when a student enrolls in a course.  
   Improves responsiveness and user experience.

**4. Benefits of Process Automation**

* Reduces manual effort for Admission and Finance Officers.
* Faster response times for Students.
* Improved data accuracy through validation rules.
* Enhanced experience with timely emails and notifications.
* Standardized approval processes to maintain college data quality.

**Phase 4 Deliverable**

By the end of Phase 4, we have:

* Implemented **validation rules, workflows, and approval processes**.
* Configured **process builder, flows, email alerts, and field updates**.
* Automated **notifications and task assignments**.
* Delivered an **efficient, responsive student management process**.

This forms the foundation for **Phase 5: Apex Programming (Developer tasks)**.