

# Project Documentation

## Event Management & Ticketing System on Salesforce

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### Phase 4: Process Automation (Admin)

#### 1. Introduction

This phase is focused on setting up automation inside Salesforce to simplify hospital-related processes. The objective is to cut down manual work, improve precision, and make sure doctors, patients, staff, and administrators receive timely updates.

Salesforce automation tools such as **Validation Rules, Workflow Rules, Process Builder, Approval Processes, and Flows** are applied to enforce hospital policies, trigger alerts, and manage the lifecycle of appointments and treatments.

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#### 2. Preparation

Before building automation, we must:

Activate **Email Deliverability** (set to "All Email").

Build **Lightning Email Templates** for confirmations, reminders, and prescription updates.

Define **Custom Notification Types** for instant alerts (e.g., appointment booked, cancelled, or report uploaded).

Generate **sample test records** for patients, doctors, appointments, and health records to verify automation.

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#### 3. Automation Components

##### *A. Validation Rules*

Purpose: Ensure **data accuracy** and prevent incorrect record creation.

##### **Examples for Project:**

Prevent Appointment Date from being set in the past.

Ensure a Patient cannot book two overlapping Appointments.

Doctor Availability must be "Available" to assign an Appointment.

Prescription record must have Diagnosis filled in before savings.

These rules enforce **clean, consistent data**.

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### *B. Workflow Rules*

- When an appointment is created → send confirmation email to the patient.
- When an appointment is rescheduled → notify both doctor and patient.

Simple, quick automations for routine updates.

Purpose: Automate simple actions.

#### **Use Cases:**

When a new Appointment is created → send a confirmation email to the Patient.

When Appointment Date/Time is rescheduled → notify the Doctor and Patient.

Helps with routine **notifications and updates**.

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### *C. Process Builder*

Purpose: Handle **multi-step automation**.

#### **Use Case Example:**

When Appointment Status changes to **Completed**:

Create a new HealthRecord\_\_c linked to Patient.

Send Custom Notification to Patient: “*Your health record has been updated.*”

Assign a follow-up Task for the Doctor.

Provides **conditional and sequential logic**.

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### *D. Approval Process*

Purpose: Automate approvals for sensitive operations.

#### **Use Case Example:**

When Appointment Type = **Surgery Appointment** → requires approval from Hospital Admin.

Approval Path: Hospital Admin reviews → Approve (Status = Approved) / Reject (Status = Rejected).

Notifications sent to Patient & Doctor.

Ensures **quality control and authorization** for critical appointments.

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#### *E. Flow Builder*

Purpose: Provide powerful automation across the system.

##### **Types used in project:**

**Record-Triggered Flow:** When Appointment is cancelled, free the doctor's schedule automatically.

**Screen Flow:** Guided Patient Appointment Booking Wizard.

**Scheduled Flow:** Send Appointment Reminders (Email/SMS) 1 day before Appointment.

**Auto-Launched Flow:** Triggered when HealthRecord is updated → notify Patient.

Flows streamline **appointment lifecycle and patient engagement**.

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#### *F. Email Alerts*

Purpose: Keep stakeholders informed via email.

##### **Examples:**

On Appointment Booking → send confirmation email to Patient.

On Appointment Reminder → send “*Your appointment is tomorrow*” email.

On HealthRecord Update → send prescription summary to Patient.

Provides **timely communication**.

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#### *G. Field Updates*

Purpose: Automatically maintain accurate statuses.

##### **Examples:**

When Appointment Date passes → update Appointment Status = “Completed.”

When HealthRecord is created → auto-update Patient Status = “Under Treatment.”

Keeps **records current without manual edits**.

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## *H. Tasks*

Purpose: Assign follow-ups to staff/doctors.

### **Examples:**

When Appointment is scheduled → create Task for Doctor to review patient history.

When Patient misses Appointment → create Task for staff to reschedule or follow up.

Ensures **no patient case is overlooked**.

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## *I. Custom Notifications*

Purpose: Deliver **real-time in-app alerts**.

### **Examples:**

Patient receives notification: *“Your Appointment is confirmed.”*

Doctor receives notification: *“You have a new Appointment scheduled.”*

Admin receives notification: *“Surgery Approval Request Pending.”*

Enhances **responsiveness and user experience**.

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## **4. Benefits of Process Automation**

- Less manual effort for doctors and staff.
  - Patients receive timely reminders and updates.
  - Data remains accurate and consistent.
  - Smooth approval for critical cases.
  - Higher patient satisfaction due to quick updates.
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### **Phase 4 Deliverable:**

- Implemented validation rules, workflows, and approvals.
- Configured Process Builder and Flows.
- Set up email alerts, notifications, and field updates.
- Automated task assignments for staff and doctors.

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