

PHASE-4

Validation Rules

Object: Patient(Contact)

Name	Purpose	Formula
PrivateInsurancePolicy	If coverage_Type is private Insurance user needs to provide the Provider details and policy number	AND(ISPICKVAL(Coverage_Type__c, "Private Insurance"), OR(ISBLANK(Insurance_Provider__c), ISBLANK(Insurance_Policy_Number__c)))
GovtScheme	If the patient's coverage_type is a government scheme like CGHS, ECHS, etc, provide schemeID	AND(OR(ISPICKVAL(Coverage_Type__c, "CGHS"), ISPICKVAL(Coverage_Type__c, "ECHS"), ISPICKVAL(Coverage_Type__c, "ESIC"), ISPICKVAL(Coverage_Type__c, "State Health Scheme")), ISBLANK(Scheme_ID__c))
InvalidDOB	Date of Birth can't be in the future	Date_of_Birth >TODAY()
EmergencyContact	If the patient is a minor Emergency Contact is a must	(TODAY() - Date_of_Birth__c) / 365 < 18 && ISBLANK(EmergencyContact__c)

SETUP > OBJECT MANAGER

Patient

Details

Data Cloud Related List

Data Cloud Copy Field

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Validation Rules

4 Items, Sorted by Rule Name

NEW

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
EmergencyContact	EmergencyContact	An emergency contact is required for patients under 18	✓	anushka bhatt, 9/23/2025, 8:38 PM
GovtScheme	Scheme_ID	Please enter the Scheme ID for government health coverage patients.	✓	anushka bhatt, 9/19/2025, 11:21 AM
InvalidDOB	Date_of_Birth	Date of Birth cannot be in the future.	✓	anushka bhatt, 9/21/2025, 1:23 PM
PrivateInsurancePolicy	Insurance_Provider	"Please enter Insurance Provider and Policy Number when Coverage Type is Private Insurance.	✓	anushka bhatt, 9/19/2025, 11:19 AM

Object: Doctor__c

Name	Purpose	Formula
EmailValidation	Email should be valid	NOT(REGEX(Email__c , "^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,}\$"))
ValidPhoneNo	Phone must contain 10 digits	NOT(REGEX(Phone__c , "^0-9]{10}\$"))

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Doctor

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Validation Rules

2 Items, Sorted by Rule Name

NEW

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
EmailValidation	Email	Enter valid email	✓	anushka bhatt, 9/23/2025, 8:41 PM
ValidPhoneNo	Availability_Status	Enter valid 10 digit number	✓	anushka bhatt, 9/23/2025, 9:04 PM

Object: Appointment__c

Name	Purpose	Formula
AppointmentDate	It can't be of past	Appointment_DateTime__c < NOW()
DoctorOnLeave	An appointment can't be made for a date on which the Doctor is on leave	ISPICKVAL(Doctor__r.Availability_Status__c, "On Leave")

SETUP > OBJECT MANAGER

Appointment

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Validation Rules

2 Items, Sorted by Rule Name

New

RULE NAME	ERROR LOCATION	ERROR MESSAGE	ACTIVE	MODIFIED BY
AppointmentDate	Appointment_DateTime	Appointment time cannot be in the past	✓	anushka bhatt, 9/23/2025, 8:42 PM
DoctorOnLeave	Appointment_DateTime	Doctor is not available for this appointment	✓	anushka bhatt, 9/23/2025, 8:43 PM

Approval Process:

System contains custom object Treatment__c , approval process if based on it .

Entry Criteria

If EstimatedCost__c for treatment > 0

Conditions:

If estimatedCost is less than 50,000 → Automatically approve

Else: need Hospital Manager approval

Step2:

If estimated cost is greater than 100000 → need Director Approval



SETUP

Approval Processes

Process Name	TreatmentCost	Active	✓
Unique Name	TreatmentCost	Next Automated Approver Determined By	Manager of Record Submitter
Description			
Entry Criteria	Treatment: EstimatedCost GREATER THAN 0		
Record Editability	Administrator ONLY	Allow Submitters to Recall Approval Requests	✓
Approval Assignment Email Template	<u>CostApproval</u>		
Initial Submitters	Appointment Owner, <u>User: Henry William</u> , <u>User: Kevin Joshep</u> , <u>User: Sarah Roger</u> , <u>User: Tony Stark</u>		
Created By	<u>anushka bhatt</u> , 9/24/2025, 9:42 AM	Modified By	<u>anushka bhatt</u> , 9/24/2025, 9:56 AM

Initial Submission Actions ?

Add Existing

Add New ▾

Action	Type	Description
	Record Lock	Lock the record from being edited

Approval Steps ?

Action	Step Number	Name	Description	Criteria	Assigned Approver	Reject Behavior
Show Actions Edit	1	ManagerApproval		Treatment: EstimatedCost GREATER THAN 50000 , else Approve	<u>User:Henry William</u>	Final Rejection
Show Actions Edit	2	DirectorApproval		Treatment: EstimatedCost GREATER THAN 100000	Approval based on first response <u>User: anushka bhatt</u> , <u>Cassie Thompson</u>	Go Back 1 Step

Care Team can submit the approval request

Treatment
TRT-0001

Related **Details**

Treatment Name
TRT-0001

Visit Date
25/09/2025, 12:00 pm

Diagnosis
need surgery

Prescription

Followup_Required
☐

Appointment
[APT-0002](#)

Doctor
[DOC-0003](#)

EstimatedCost
\$9,000.00

Created By
 Sarah Roger, 24/09/2025, 11:14 am

Last Modified By
 Sarah Roger, 24/09/2025, 11:14 am

Treatment
TRT-0001

Related **Details**

Notes & Attachments (0)

Upload Files

Upload Files

Or drop files

Approval History (2)

Recall

Step Name	Date	Status	Assigned To
ManagerApproval	24/09/2025, 11:18 am	Pending	Henry William
Approval Request S...	24/09/2025, 11:18 am	Submitted	Sarah Roger

View All

If the manager agree to approve he /she approves

If Cost is > 100000 goes to the director for approval

The screenshot displays a web application interface for a medical treatment record. At the top, a header bar shows a green icon with a white 'E' and the text 'Treatment TRT-0003'. Below this, a tabbed interface has 'Related' and 'Details' tabs, with 'Details' being the active tab. The 'Details' section contains several rows of data, each with a text field and a small edit icon (pencil) on the right. The fields are: 'Treatment Name' (TRT-0003), 'Visit_Date' (17/09/2025, 12:00 pm), 'Diagnosis' (empty), 'Prescription' (empty), 'Followup_Required' (checkbox), 'Appointment' (APT-0003), 'Doctor' (DOC-0004), 'EstimatedCost' (1,55,000.00), and 'Created By' (Sarah Roger, 24/09/2025, 12:11 pm).

Field	Value	Edit
Treatment Name	TRT-0003	
Visit_Date	17/09/2025, 12:00 pm	
Diagnosis		
Prescription		
Followup_Required	<input type="checkbox"/>	
Appointment	APT-0003	
Doctor	DOC-0004	
EstimatedCost	1,55,000.00	
Created By	Sarah Roger, 24/09/2025, 12:11 pm	

Agent using agentforce

The goal of this Agent is to streamline patient registration and doctor appointment booking in the **CuraForce App**.

- Patients or staff can interact with the chatbot to **create a new patient record**.
- The chatbot will ask for basic patient details (name, age, gender, health issue).
- Based on the **health issue description**, the bot uses an **Apex-powered NLP-like keyword matcher** to **suggest a suitable doctor specialty** (e.g., Cardiologist for chest pain, Dermatologist for skin issues, General Physician for other conditions).
- The chatbot then shows a list of **available doctors** in that specialty.
- If the patient confirms, the chatbot books an **appointment** (DoctorPatient record) with the selected doctor.

This automation reduces manual data entry for staff and provides patients with quick doctor recommendations.

Current Implementation (Prototype Stage)

Apex Class for Doctor Suggestion

Implemented **HealthIssueDoctorService** class which:

- Reads patient health issue text.
- Maps keywords → suggested specialty.
Queries doctors with **Availability__c = 'Available'**.
- Returns a formatted list of doctor names & IDs.

```

public with sharing class HealthIssueDoctorService {
    // Invocable Request (input)
    public class Request {
        @InvocableVariable(required=true)
        public String healthIssue;
        @InvocableVariable
        public Integer maxResults; // number of doctors return
    }

    public class Response {
        @InvocableVariable
        public String suggestedSpecialty;
        // doctorListCsv is "Id|Doctor Name;Id|Doctor Name;..."
        @InvocableVariable
        public String doctorListCsv;
    }

    @InvocableMethod(label='Suggest Specialty & Doctors' description='Return suggested specialty and small list of doctors based on health issue text')
    public static List<Response> suggest(List<Request> requests) {
        List<Response> outputs = new List<Response>();
        for(Request req : requests) {
            String issue = (req.healthIssue == null) ? '' : req.healthIssue.toLowerCase();
            Integer maxR = (req.maxResults == null || req.maxResults <= 0) ? 5 : req.maxResults;
            String spec = 'General Physician';

            // keyword rules
            if(issue.contains('chest') || issue.contains('heart') || issue.contains('angina') || issue.contains('palpiti')) {
                spec = 'Cardiologist';
            } else if(issue.contains('skin') || issue.contains('rash') || issue.contains('itch') || issue.contains('eczema') || issue.contains('psoriasis')) {
                spec = 'Dermatologist';
            } else {
                spec = 'General Physician';
            }

            // Querying doctors for that specialty
            List<Doctor__c> doctors = new List<Doctor__c>();

            try {
                doctors = [
                    SELECT Id, Name, Specialty__c, Availability_Status__c
                    FROM Doctor__c
                    WHERE Specialty__c = :spec
                    AND Availability_Status__c = 'Available'
                    LIMIT :maxR
                ];
            } catch (Exception e) {
                // if the Doctor__c object/fields not matched, fallback to empty list
                doctors = new List<Doctor__c>();
            }

            String csv = '';
            for(Doctor__c d : doctors) {
                if(csv != '') csv += ',';
                csv += String.valueOf(d.Id) + '|' + (d.Name == null ? '' : d.Name);
            }

            Response out = new Response();
            out.suggestedSpecialty = spec;
            out.doctorListCsv = csv;
            outputs.add(out);
        }
        return outputs;
    }
}

```

Tested apex class using executing this in anonymous window

```

List<HealthIssueDoctorService.Request> reqs = new List<HealthIssueDoctorService.Request>();
HealthIssueDoctorService.Request r = new HealthIssueDoctorService.Request();
r.healthIssue = 'I have chest pain and difficulty breathing';
r.maxResults = 3;
reqs.add(r);

List<HealthIssueDoctorService.Response> res = HealthIssueDoctorService.suggest(reqs);
System.debug(JSON.serializePretty(res));

```

Result return Doc 004 and 007 are cardiologist that are available.

Clinics ▾ Schedule/Page Patients Tasks ▾ **Doctors ▾** Appointments ▾ Treatments ▾ Feedbacks ▾ More ▾

Doctors
 All ▾ +


New Import Assign Label

13 items • Sorted by Doctor ID • Updated a New seconds ago

Search this list...

	Doctor ID ▾	Full Name ▾	Specialty ▾	Availability Status ▾
1	<input type="checkbox"/> DOC-0001	Joey Macow	Cardiologist	Available ▾
2	<input type="checkbox"/> DOC-0002	Ragini Mishra	Dermatologist	Available ▾
3	<input type="checkbox"/> DOC-0003	R K Ghosh	General Physician	Available ▾
4	<input type="checkbox"/> DOC-0004	J P Narayan	Cardiologist	Available ▾
5	<input type="checkbox"/> DOC-0005	Dr.Rishi Parmar	General Physician	On Leave ▾
6	<input type="checkbox"/> DOC-0006	Dr.Sheetla Singh	Dermatologist	Booked ▾
7	<input type="checkbox"/> DOC-0007	Dr Alia Sharma	Cardiologist	Available ▾
8	<input type="checkbox"/> DOC-0009	Roxson	Cardiologist	Available ▾
9	<input type="checkbox"/> DOC-0010	Yin Su	Cardiologist	Available ▾
10	<input type="checkbox"/> DOC-0011	Chole	Dermatologist	On Leave ▾
11	<input type="checkbox"/> DOC-0012	Jin Su	Dermatologist	Available ▾
12	<input type="checkbox"/> DOC-0014	Kin Su	Dermatologist	Available ▾
13	<input type="checkbox"/> DOC-0015	Alia Cruise	Cardiologist	Available ▾

I already have all my agent permissions active so I directly head to creating new agent.



SETUP > AGENT DETAILS

Healthcare Service Agent

Version 1 ▾

Open in Builder

API Name	Type	Active
Healthcare_Service_Agent	Service Agent	<input type="checkbox"/>

Details

Topics

System Messages

Language Settings

Connections

* Name

Healthcare Service Agent

Created On

September 25, 2025 at 11:51 PM

* API Name

Healthcare_Service_Agent

Created By

anushka bhatt

* Description ⓘ

You are an AI Agent whose job is to help patients with registration, health issue analysis, doctor recommendations, and appointment scheduling for CuraForce.

Last Modified By

anushka bhatt


* Role ⓘ

Assists patients with registration, health issue analysis, doctor recommendations, and appointment scheduling.

* Company ⓘ

CuraForce

* Agent User

 EinsteinServiceAgent User (healthcare_service_agent@)

Keep a record of conversations with enhanced event logs to review agent behavior ⓘ

☒

Set the topics for agent so that it give relevant answers

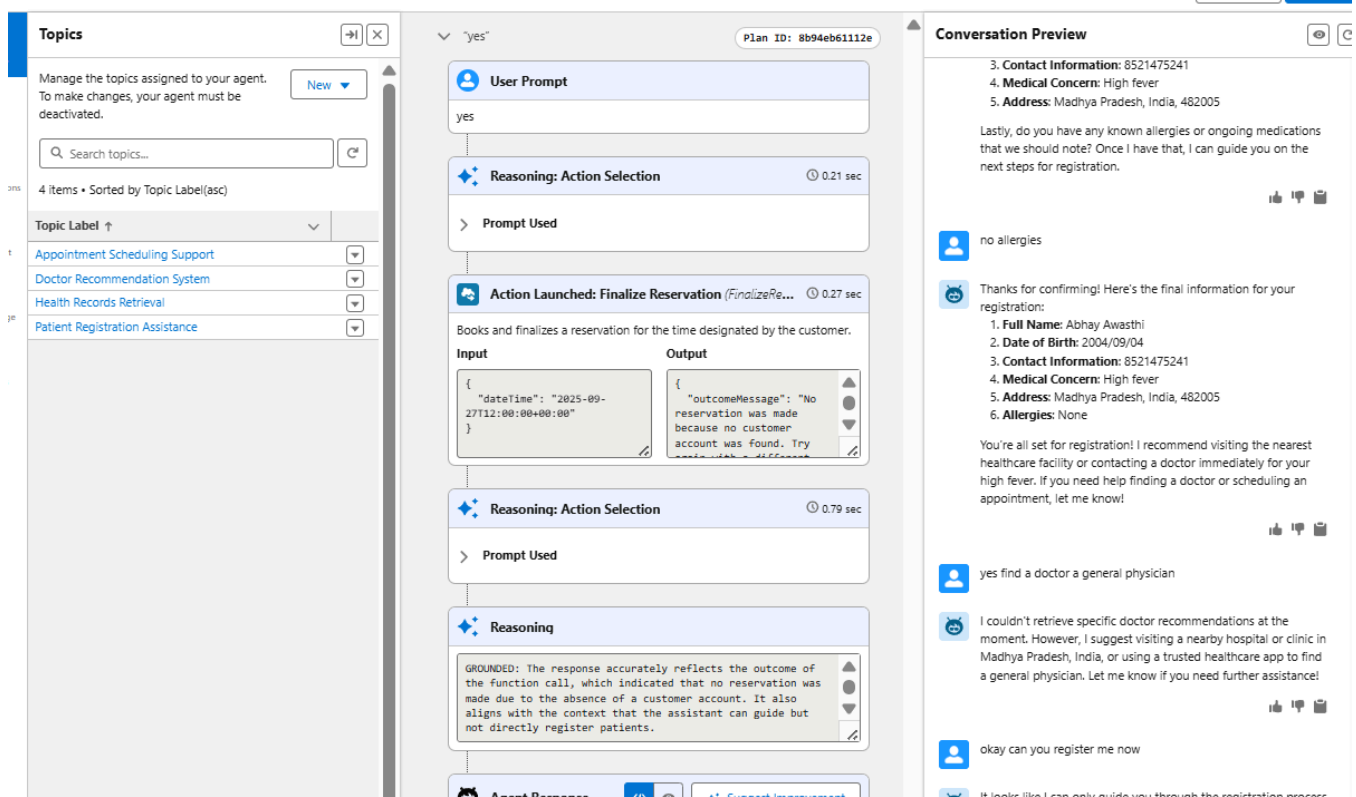
The screenshot shows the Agentforce Builder interface for a "Healthcare Service Agent". The left sidebar contains a "Topics" panel with a search bar and a list of four topics: "Appointment Scheduling Support", "Doctor Recommendation System", "Health Records Retrieval", and "Patient Registration Assistance". The main area is titled "Put your topics to the test" and includes a "Batch Test" button. The right sidebar shows a "Conversation Preview" with a cartoon astronaut character and the text "Let's chat! Hi, I'm an AI assistant. How can I help you?"

This detailed screenshot shows the Agentforce Builder interface with a conversation flow. The left sidebar is the same as the previous image. The main area displays a conversation flow for a user prompt "no allergies". The flow includes a "Reasoning: Topic Selection" step (0.36 sec) which selects the topic "Patient Registration Assistance". This is followed by a "Reasoning: Action Selection" step (1.44 sec) and a "Reasoning" step. The "Agent Response" section shows a JSON object:

```
{ 1: { 2: { "message": "Thanks for confirming! Here's the" } } }
```

. The right sidebar shows the "Conversation Preview" with a chat history:

- User: "i am a patinet"
- Agent: "Hi! How can I assist you as a patient today?"
- User: "i am having fever"
- Agent: "I'm sorry to hear that you're feeling unwell. I can help recommend a doctor for you. Could you let me know your location and any preferences you have for the doctor (e.g., gender, language, or specialty)?"
- User: "can you register me as patinet"
- Agent: "Sure! I can guide you through the patient registration process. Could you please provide the following details to get started? 1. Your full name 2. Date of birth 3. Contact information (phone number and/or email) 4. Address 5. Any specific medical concerns or conditions we should note Let me know, and we'll proceed!"
- User: "Abhay Awasthi, my date of birth is 2004/09/04,contact info is 8521475241,having high fever"
- Agent: "Thank you for providing the details, Abhay. Here's what I have so far: 1. Full Name: Abhay Awasthi 2. Date of Birth: 2004/09/04 3. Contact Information: 8521475241"



The agent is asking me as a patient to give information for required fields so that can create my patient account or check if i am already there. But I am working on functionality to book appointment and suggesting doctor. Right now the agent is under development.

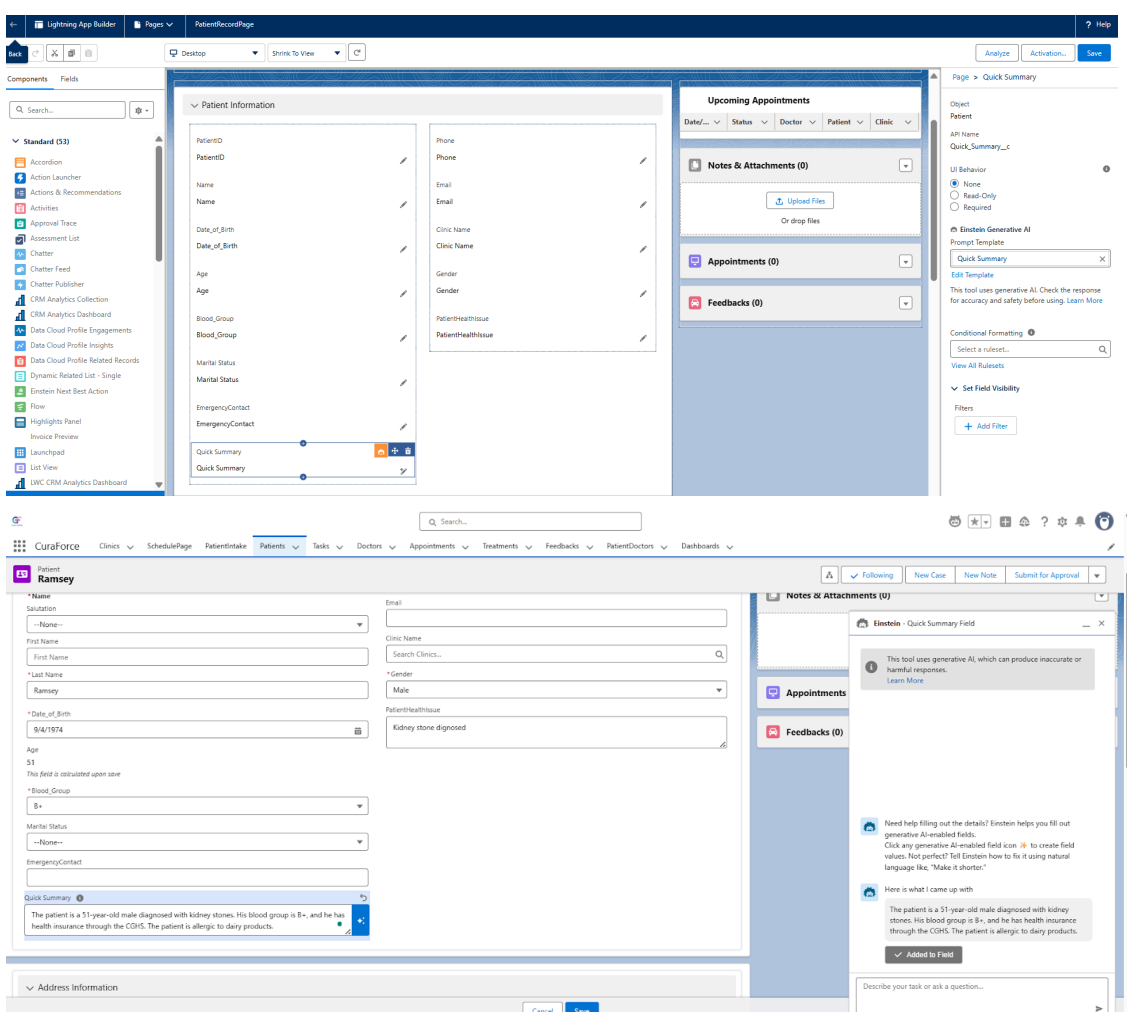
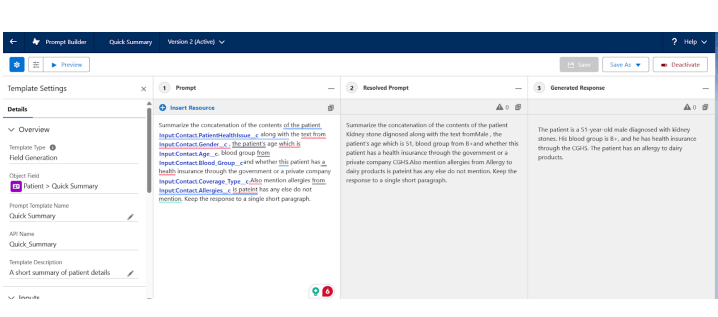
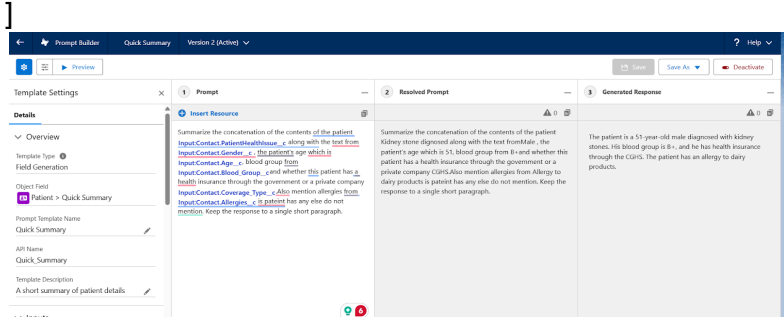
Prompt Template

I used the "Field Generation" prompt template to create a quick summary for patient using AI.

Steps to create prompt template are

- Setup → in the quick find box head to prompt builder → New Prompt Template → select type, Object, field of that object that you want to generate with AI, give suitable name and description.
- In the new window type the prompt / instruction you want what type of summary and all.
- Preview various models and generated responses for each of them.
- And Select the one that suits you click save and active.
- Field generation needs extra step that is add the dynamic record page to layout assign the quick summary as prompt template. And Done

Model used OpenAI GPT 4 Omni Mini, 0 toxicity detected.



Screen Flow

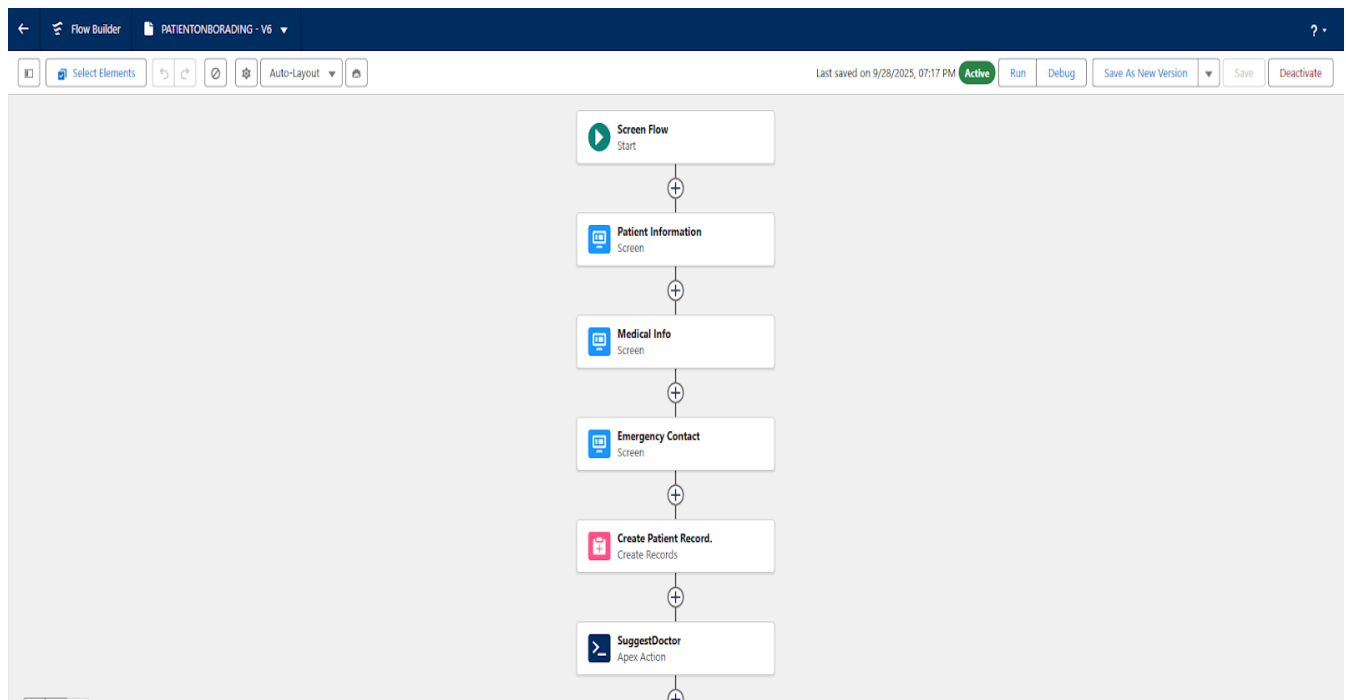
Instead of agent, for the time being I implement **screen flow** for the same cause. I have utilized the apex class as apex action in the screen flow.

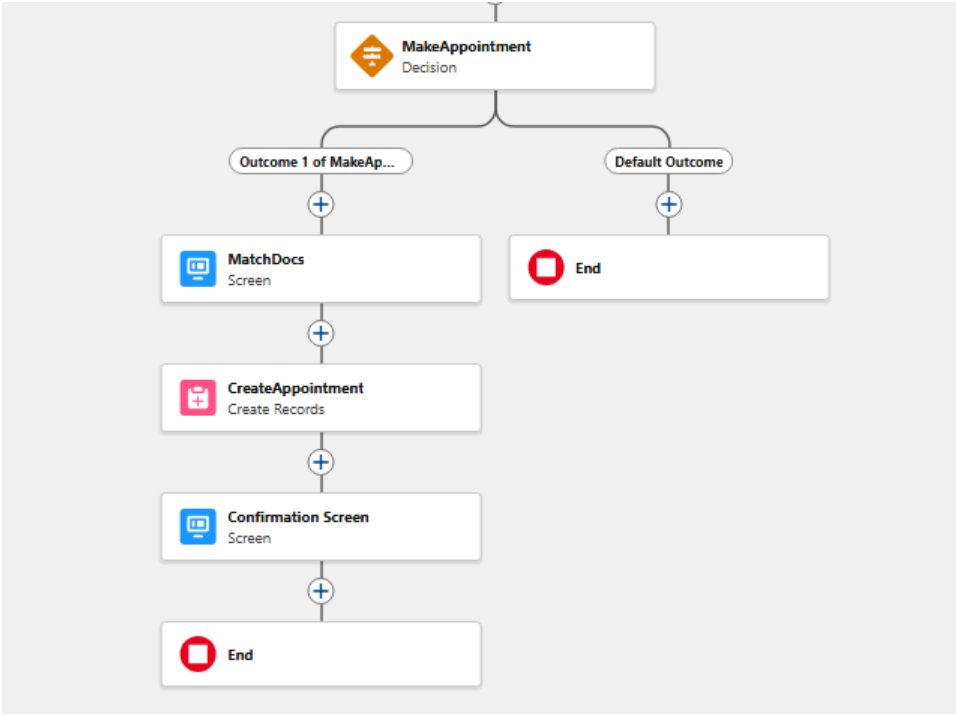
This flow starts by **collecting the required information of the patient** like name, gender, blood group, any allergies, and most importantly, current health issues, based on which later the patient gets suggested a specialty and a list of available doctors with that specialty.

The **create patient record component** simply maps the flow variables to the actual patient record field and creates a patient record.

Using the same **HealthIssueDoctorService** apex class calling it using apex action component , **patient gets the suggested doctor and their speciality list**. Then, asked does he/she wants to book the appointment.

If it says yes in the next screen, it gets to choose one of the suggested doctors and preferred date and time, if that date and time obeys other validations we previously created, like preventing Double booking, and if the doctor is available on that day. The booking gets confirmed, and the database gets updated.





PATIENTONBORADING

Fill this patient form

Name

First Name

Shrey

Last Name

Sharma

* DOB

Jul 15, 1999

* Gender

☒ Male

☐ Female

☐ Other

* Marital Status

Single

Address

Country

India

Street

PATIENTONBORADING

Based on the patient health issue, we suggest consulting:
a07gl.000000EPQMmQAPIDOC-0001:a07gl.000000Epc9QAIIIDOC-0004:a07gl.000000gTPIQAIIIDOC-0007 with specialised in Cardiologist

Make Appointment

☐ Yes

☐ No

Previous Next

PATIENTONBORADING

Any Past medical history

Allergies

allergic due to soya products

* BloodGroup

O+

PatientHealthIssue

Chest pain

Previous Next

PATIENTONBORADING

Yay! Your appointment is confirmed with doctor J P Narayan.
Time and date of your appointment is 9/30/2025, 3:00 PM.

Previous Finish