

Airline Management System Project

Continuation Report (Phase 3 – Phase 10)

Phase 3: Data Modeling & Schema Design

- Created Custom Objects: Airline__c

Setup

Home

Object Manager

SEARCH SETUP

SETUP > OBJECT MANAGER

Airline

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Fields & Relationships

7 Items, Sorted by Field Label

FIELD LABEL

FIELD NAME

DATA TYPE

CONTROLS

Active Status

Active_Status__c

Checkbox

Airline Code

Airline_Code__c

Text(5)

Airline Name

Name

Text(80)

Country

Country__c

Picklist

Created By

CreatedById

Lookup(User)

Last Modified By

LastModifiedById

Lookup(User)

Owner

OwnerId

Lookup(User,Group)

Setup

Home

Object Manager

SEARCH SETUP

SETUP > OBJECT MANAGER

Flight

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Fields & Relationships

14 Items, Sorted by Field Label

FIELD LABEL

FIELD NAME

DATA TYPE

CONTROLS

Airline

Airline__c

Lookup(Airline)

Available Seats

Available_Seats__c

Number(5, 0)

Created By

CreatedById

Lookup(User)

Departure Time

Departure_Time__c

Date/Time

Destination

Destination__c

Text(50)

Flight Name

Name

Text(80)

Flight Number

Flight_Number__c

Auto Number

Flight Type

Flight_Type__c

Picklist

- Passenger__c

Setup

Home

Object Manager

SETUP > OBJECT MANAGER

Passenger

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

Fields & Relationships

7 Items, Sorted by Field Label

Quick Find

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLS
Created By	CreatedById	Lookup(User)	
Email	Email__c	Email	
ID Proof	ID_Proof__c	Picklist	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	
Passenger Name	Name	Text(80)	
Phone	Phone__c	Phone	

- Booking__c

SETUP > OBJECT MANAGER

Booking

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Fields & Relationships

10 Items, Sorted by Field Label

Quick Find

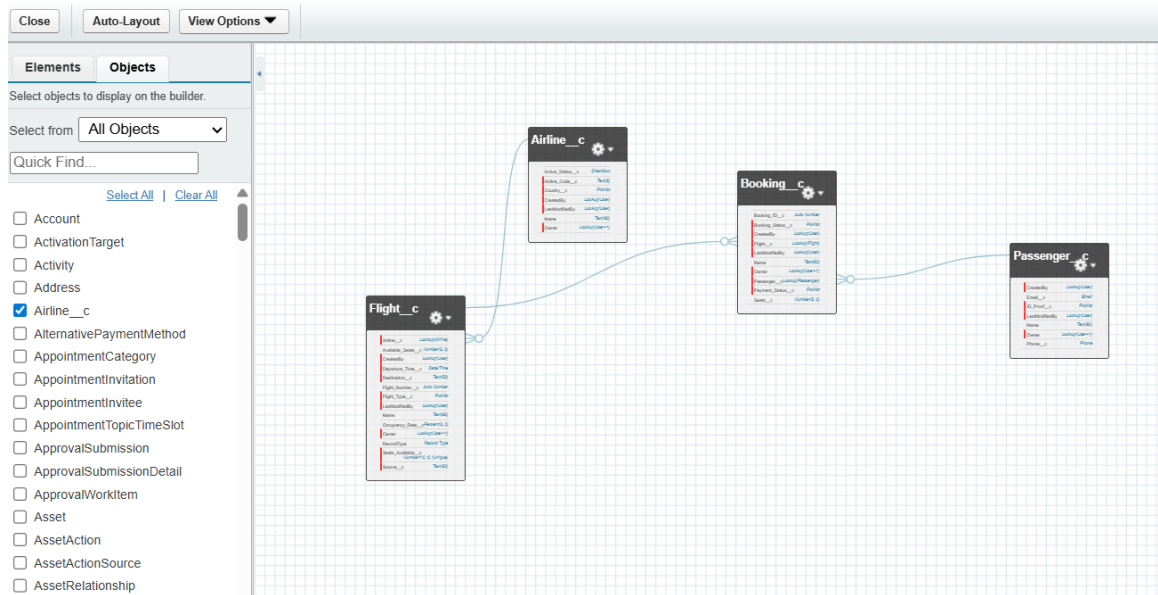
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLS
Booking ID	Booking_ID__c	Auto Number	
Booking Name	Name	Text(80)	
Booking Status	Booking_Status__c	Picklist	
Created By	CreatedById	Lookup(User)	
Flight	Flight__c	Lookup(Flight)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	
Passenger	Passenger__c	Lookup(Passenger)	
Payment Status	Payment_Status__c	Picklist	

Defined Relationships: Flight_c linked to Airline_c, Booking_c linked to Passenger_c and Flight_c.

Added key Fields: Flight Number, Source, Destination, Departure Time, Seats Available, Flight Type. **This is cover in my screenshort**

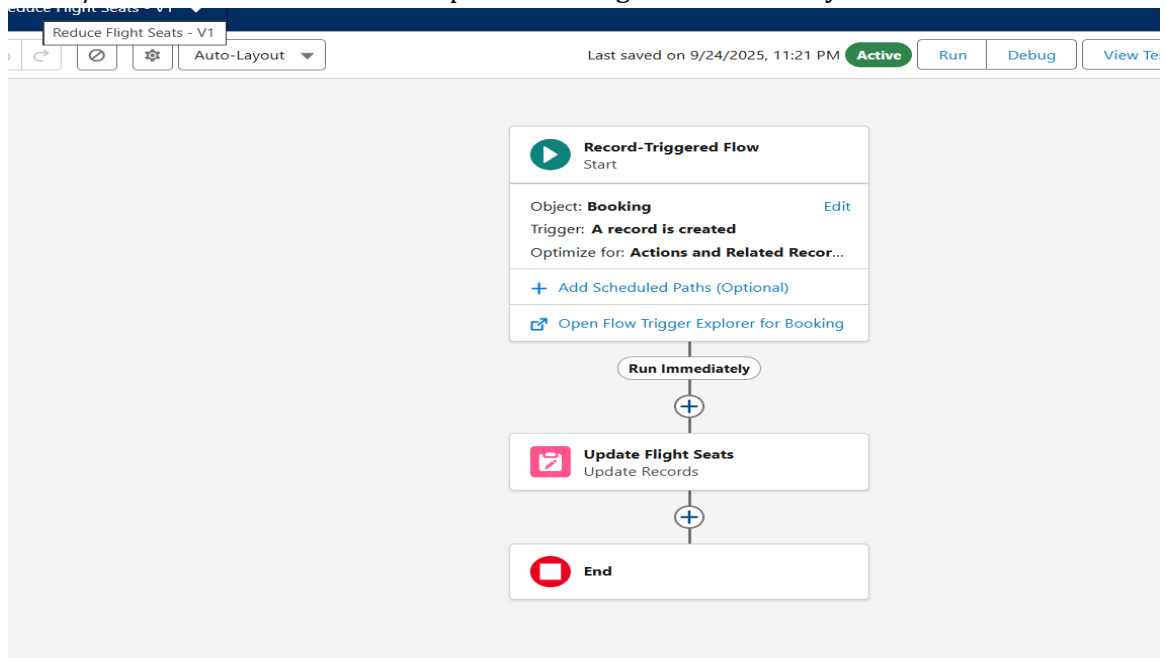
- Ensured schema supports bookings, cancellations, and reporting.

Schema Builder

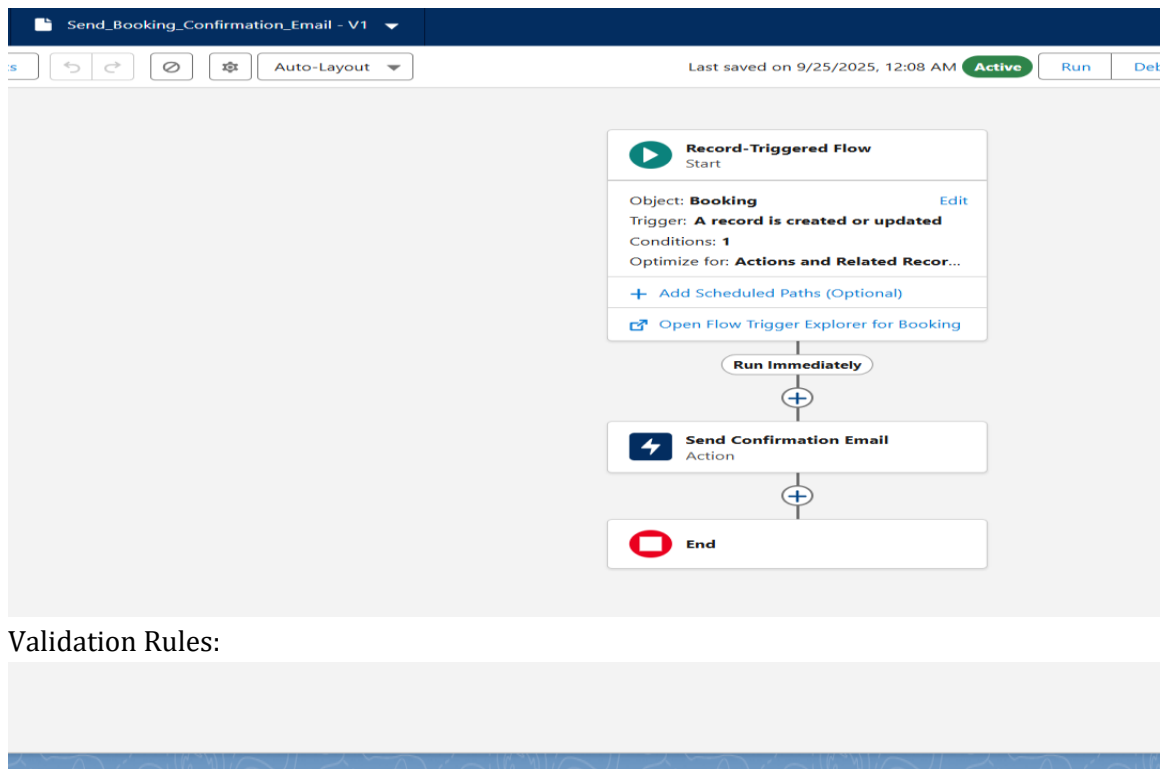


Phase 4: Automation (Flows & Validation Rules)

- Flows/Process Automation: Auto-update Booking status when Payment is Confirmed.



Send confirmation email after booking approval.



- Validation Rules:


Booking Validation Rule

[Back to Booking](#)

Validation Rule Detail		Edit	Clone
Rule Name	Prevent_Overbooking	Active	<input checked="" type="checkbox"/>
Error Condition Formula	Flight_r.Seats_Available__c <= 0		
Error Message	No seats available for this flight.	Error Location	Booking Name
Description			
Created By	Himanshu Kahalkar , 9/24/2025, 8:03 AM	Modified By	Himanshu Kahalkar , 9/24/2025, 8:03 AM

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

- Approval Process: Cancellations require Manager approval.


SETUP

Approval Processes

Approval Processes

Booking: Booking Cancellation Approval

« [Back to Approval Process List](#)

Process Definition Detail

Edit

Clone

Deactivate

Process Name	Booking Cancellation Approval	Active	<input checked="" type="checkbox"/>
Unique Name	Booking_Cancellation_Approval	Next Automated Approver Determined By	Manager of Record Submitter
Description			
Entry Criteria	Booking: Booking Status EQUALS Cancellation Requested		
Record Editability	Administrator ONLY	Allow Submitters to Recall Approval Requests	<input type="checkbox"/>
Approval Assignment Email Template			
Initial Submitters	Booking Owner		
Created By	Himanshu Kahalkar, 9/24/2025, 12:06 PM	Modified By	Himanshu Kahalkar, 9/25/2025, 2:40 AM

Initial Submission Actions

Add Existing

Add New

Action	Type	Description
	Record Lock	Lock the record from being edited


Approval Steps

Approval Processes: Booking: Booking Cancellation Approval – Salesforce - Developer Edition

Action	Step Number	Name	Description	Criteria	Assigned Approver	Reject Behavior
Show Actions Edit	1	Step 1			Manager	Final Rejection

Phase 5: Apex Programming (Optional Enhancement)

- Developed PaymentGatewayService Apex class for payment gateway simulation.



Apex Classes

Apex Class

PaymentGatewayService

Apex Class Detail

Edit

Delete

Download

Security

Name	PaymentGatewayService
Namespace Prefix	
Created By	<u>Himanshu Kahalkar</u> , 9/25/2025, 5:15 AM

Class Body

Class Summary

Version Settings

Trace Flags

```

1 public with sharing class PaymentGatewayService {
2     @future(callout=true)
3     public static void callPaymentGateway() {
4         Http http = new Http();
5         HttpRequest req = new HttpRequest();
6
7         // Use the Named Credential instead of hardcoding the URL
8         req.setEndpoint('callout:PaymentGateway');
9         req.setMethod('GET');
10
11         HttpResponse res = http.send(req);
12
13         System.debug('Response Status: ' + res.getStatusCode());
14         System.debug('Response Body: ' + res.getBody());
15     }
16 }
```

Salesforce - Developer Edition

- Created triggers and classes for custom logic (Booking updates, Batch jobs).

FlightOccupancyBatchSchedulerTest

Apex Class Detail [Edit](#) [Delete](#) [Download](#) [Run Test](#) [Show Dependencies](#)

Name FlightOccupancyBatchSchedulerTest

Namespace Prefix

Last Modified By [Himanshu Kahalkar](#), 9/25/2025, 3:52 AM


Class Body **Class Summary** **Version Settings** **Trace Flags**

```

1  @isTest
2  private class FlightOccupancyBatchSchedulerTest {
3
4      @isTest
5      static void testSchedulerRunsBatch() {
6          Test.startTest();
7          String CRON = '0 0 2 * * ?'; // 2 AM daily
8          System.schedule('Test Daily Flight Batch', CRON, new FlightOccupancyBatchScheduler());
9          Test.stopTest();
10
11         // Just checking no exception, Salesforce will run the batch
12         System.assert(true, 'Scheduler executed successfully');
13     }
14 }

```

- Ensured unit test coverage $\geq 75\%$ for deployment compliance.




 **Apex Test Execution**

Apex Test Execution

Click Select Tests to choose one or more Apex unit tests and run them. To see the current code coverage for an individual class or your org

[Select Tests...](#) [Developer Console](#) [Options...](#) [View Test History](#)

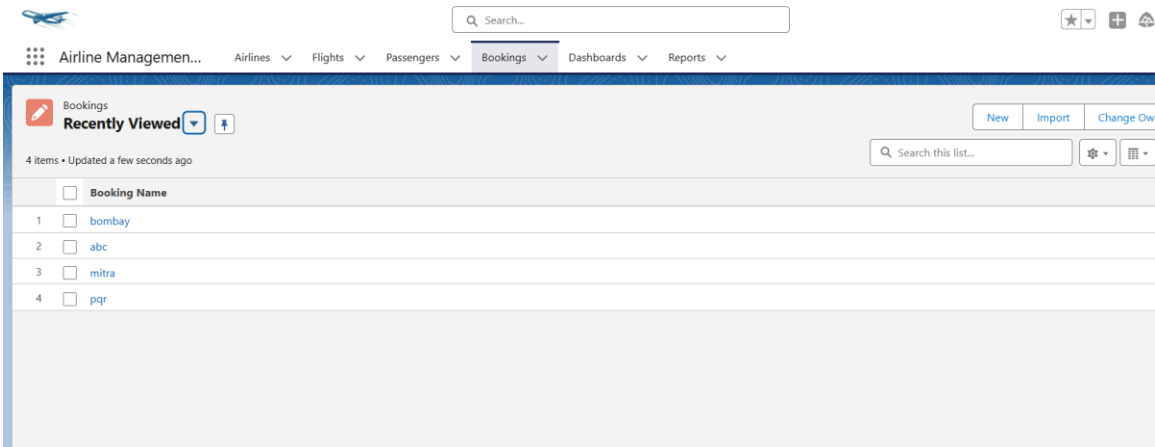
Abort

<input checked="" type="checkbox"/>	Status	Class	Result
	Test Run: 2025-09-25 09:27:28, hkahalkar55694@agentforce.com, (2 test classes run)		
	[View]	FlightOccupancyBatchSchedulerTest	(1/1) Test Methods Passed
	[View]	FlightOccupancyBatchTest	(1/1) Test Methods Passed

Detail	Duration	Class	Method	Pass/Fail	Error Message
[View]	0:01	FlightOccupancyBatchTes	testBatchExecution	Pass	

Phase 6: User Interface Development

- Created Lightning App: Airline Management System with tabs for Airlines, Flights, Passengers, Bookings.



- Customized Page Layouts to show related records (Bookings on Flight, Passengers on Booking).

Page Layouts
1 Items, Sorted by Page Layout Name

Quick Find

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Booking Layout	Himanshu Kahalkar, 9/17/2025, 4:22 AM	Himanshu Kahalkar, 9/25/2025, 2:44 AM

Page Layouts
1 Items, Sorted by Page Layout Name

Quick Find

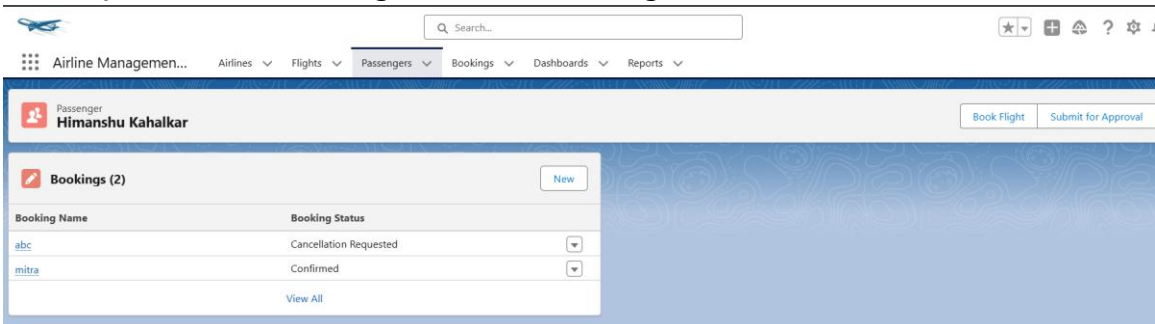
PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Passenger Layout	Himanshu Kahalkar, 9/17/2025, 4:49 AM	Himanshu Kahalkar, 9/25/2025, 4:45 AM

Page Layouts
3 Items, Sorted by Page Layout Name

Quick Find

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Domestic Flight Layout	Himanshu Kahalkar, 9/23/2025, 12:11 PM	Himanshu Kahalkar, 9/25/2025, 4:08 AM
Flight Layout	Himanshu Kahalkar, 9/17/2025, 4:18 AM	Himanshu Kahalkar, 9/25/2025, 4:08 AM
International Flight Layout	Himanshu Kahalkar, 9/23/2025, 12:14 PM	Himanshu Kahalkar, 9/25/2025, 4:08 AM

- Added Quick Action: 'Book Flight' button on Passenger record.



Phase 7: Integration & External Access

- Configured Named Credentials for external services.

SETUP > NAMED CREDENTIALS

PaymentGatewayCred

Label

PaymentGatewayCred

Name

PaymentGatewayCred

Authentication Protocol

No Authentication

Managed Package Access

Created By Namespace

Related Named Credentials

Label	Name	URL
PaymentGateway	PaymentGateway	https://api.testgateway.com

- Implemented Payment Gateway callouts with secure authentication.

Phase 8: Data Management & Deployment

- Imported data using Data Loader (Airlines → Flights → Passengers).

SETUP

Bulk Data Load Jobs

Monitor Bulk Data Load Jobs

Help for this

Monitor the status of recent bulk data load jobs. These jobs are created by Data Loader and other Bulk API client applications.

Quota

Your organization has processed 0 batches in the last 24 hours. Your organization can process 15,000 batches in a 24-hour period.

Resource used in the last 24 hours:
CPU: 32 milliseconds
IO: 0 bytes
Disk: 0 bytes

In Progress

Job ID	Submitted By	Start Time	Status	Job Type	Operation	Object	Records Processed	Records Failed	Progress
No records to display.									

Completed last 7 days

Job ID	Submitted By	Start Time	End Time	Status	Job Type	Operation	Object	Records Processed	Records Failed	Time to Complete (hh:mm:ss)
Z50gl00000E6d5S	Kahalkar_Himanshu	9/25/2025, 7:03 AM	9/25/2025, 7:03 AM	End Time - Sorted descending	V1	Upsert	Flight	5	5	00:14
Z50gl00000E6flQ	Kahalkar_Himanshu	9/25/2025, 6:50 AM	9/25/2025, 6:50 AM	Closed	V1	Upsert	Passenger	5	5	00:00
Z50gl00000E6Lxo	Kahalkar_Himanshu	9/25/2025, 5:41 AM	9/25/2025, 5:41 AM	Closed	Bulk V1	Upsert	Airline	5	5	00:00

- Created Duplicate Rules to prevent duplicate passengers by Email + Passport.

SETUP

Duplicate Rules

Passenger Duplicate Rule

Passenger_Duplicate_Rule

Help for this rule

Duplicate Rule Detail

Edit

Delete

Clone

Deactivate

Rule Name

Passenger_Duplicate_Rule

Order 1 of 1 [Reorder]

Description

Prevent duplicate passengers using Email and Passport.

Object

Passenger

Record-Level Security

Enforce sharing rules

Action On Create

Allow

Operations On Create

Alert

Report

Action On Edit

Allow

Operations On Edit

Alert

Report

Alert Text

Use one of these records?

Active

✓

Matching Rule

✓

Passenger_Duplicate_Check

✓

Mapped

Matching Criteria

(Passenger: ID_Proof EXACT MatchBlank = FALSE) AND (Passenger: Email EXACT MatchBlank = FALSE)

Conditions

Created By

Himanshu Kahalkar, 9/25/2025, 7:15 AM

Modified By

Himanshu Kahalkar, 9/25/2025, 7:15 AM

Edit

Delete

Clone

Deactivate

Phase 9: Reporting, Dashboards & Security Review

- Reports: Flight Occupancy Bookings per Airline Cancellations.

Q Search...

★

+

🔔

?

⚙️

🔔

👤

Airline Management...

Airlines

Flights

Passengers

Bookings

Dashboards

Reports

Reports

Recent

5 items

Q Search recent reports...

New Report

New Folder

⚙️

REPORTS	Report Name	Description	Folder	Created By	Created On	Subscribed
Recent	Bookings Report		Private Reports	Himanshu Kahalkar	9/25/2025, 8:11 AM	
Created by Me	Cancellations Report		Airline report	Himanshu Kahalkar	9/25/2025, 7:55 AM	
Private Reports	Bookings per Airline Report		Airline report	Himanshu Kahalkar	9/25/2025, 7:50 AM	
Public Reports	Flight Occupancy Report		Private Reports	Himanshu Kahalkar	9/25/2025, 7:43 AM	
All Reports	DB-Adoption: CAMPAIGNS by Status	Status of all campaigns on a monthly basis	DB - Adoption	Himanshu Kahalkar	8/31/2025, 8:37 AM	

FOLDERS

All Folders

Created by Me

Shared with Me

FAVORITES

- Dashboards: Admin Dashboard (Revenue, Occupancy, Bookings), Flight Dashboard (Cancellations).

