TRIP ADVISOR E-MANAGEMENT

INTRODUCTION:

Salesforce is a leading cloud-based **Customer Relationship Management** (CRM) platform that provides versatile tools for managing and optimizing customer relationships, sales processes, and customer service. In today's highly competitive travel industry, delivering exceptional customer experiences and efficient operations is critical for success.

The **TripAdvisor E-Management** Project is designed to utilize Salesforce's robust CRM platform to address these challenges. By integrating Salesforce's diverse capabilities—ranging from automation and analytics to customer service and marketing—this project aims to revolutionize how TripAdvisor manages bookings, customer interactions, and reviews. This scalable, data-driven solution will empower TripAdvisor to provide personalized experiences, ensure seamless communication with travel partners, and gain actionable insights into customer behaviour.

With Salesforce at its core, the project positions TripAdvisor to adapt to the evolving demands of the travel industry while enhancing its operational efficiency and customer satisfaction.

Overview of salesforce:

Salesforce offers a wide array of functionalities that allow organizations to manage interactions and relationships with various stakeholders, including clients, volunteers, and donors. Key modules in Salesforce include:

- **Sales Cloud:** Enhances sales process efficiency through lead tracking and management tools, ensuring effective outreach and engagement.
- **Service Cloud:** Focuses on customer service, providing tools for case management and knowledge sharing that could support the logistics of food distribution.
- **Marketing Cloud:** Automates communication and engagement, including email campaigns and analytics, helping nonprofits reach out to donors and partners efficiently.

Project Overview:

The TripAdvisor E-Management Salesforce project aims to streamline TripAdvisor's operational processes, improve customer engagement, and optimize business workflows through Salesforce's robust Customer Relationship Management (CRM) platform. The solution will enable seamless management of bookings, reviews, and customer interactions while ensuring scalability and real-time analytics.

Objectives:

Business Goals:

1. Enhance customer satisfaction and engagement.
2. Automate workflows for booking and review management.
3. Provide real-time insights into customer behaviors and trends.
4. Improve operational efficiency by reducing manual tasks.

Specific Outcomes:

- A unified platform for managing customer reviews, booking data, and travel partner communications.
- Reduced response time for customer inquiries and complaints.
- Advanced reporting dashboards for performance and trend analysis.
- Scalable architecture to accommodate growing customer data and interactions.

Salesforce Key Features and Concepts Utilized:

1. Sales Cloud for lead and opportunity management.
2. Service Cloud for customer service and case management.
3. Marketing Cloud for personalized customer engagement campaigns.
4. Experience Cloud to create a portal for customers and travel partners.
5. Einstein Analytics for predictive analytics and insights.
6. Automation Tools like Flows, Process Builder, and Workflow Rules.
7. Integration with third-party tools using APIs for seamless data synchronization.

Detailed Description of Implemented Features:

Acceptance Criteria & Solution

- As the Salesforce User we have to manage the data for the Hotels, Flights, and Food Options for this we have to create some automation for simplification.
- To ensure that when a new Food Option is added or updated, the corresponding Hotel's information is updated accordingly. For example, you might want to maintain a total count of food options for each hotel.
- Also, there is an automation for the customer benefits if the buying amount is with respect to some amount. then they will get some discounts on their bill.
- For the flights their schedule process being involved where the customer who has booked the flight will get the reminder mail alert for knowing proper timing of the flight before 24 hrs it's important to manage the in a good way.
- The system should provide confirmation or notification to the user upon successful sending of the email.

Solution: For the Above requirements of TripAdvisor, we have created the solutions by creating the custom objects and Fields the Custom Objects that are created are Hotels, Food Options, Customer & Flights. For the Automation we have used here a flow and triggers and for scheduling the email alerts we have created the Apex Schedulable class so email alerts will be created.

1. Create Object

Hotel Object is created to ensure that when a new Food Option is added or updated with the necessary information

- Enter label: Hotel
- Plural Name: Hotels
- Data Type: (text)
- Field Name: Hotel Name
- Click Allow Reports
- Allow Search? Save

With Above References Create the following Objects

- Food Option? Data Type? Auto Number? Format? FO - {0000}
- Flight? Data Type? Auto Number? Format? FL- {0000}
- Customer? Text? Field Name? Customer Name.

2. Create Fields for Hotel Object

Sr. No.	Field Name	Data Type
1	TotalFoodOptions	Number
2	Date	Date

3. Create Fields For Food Option

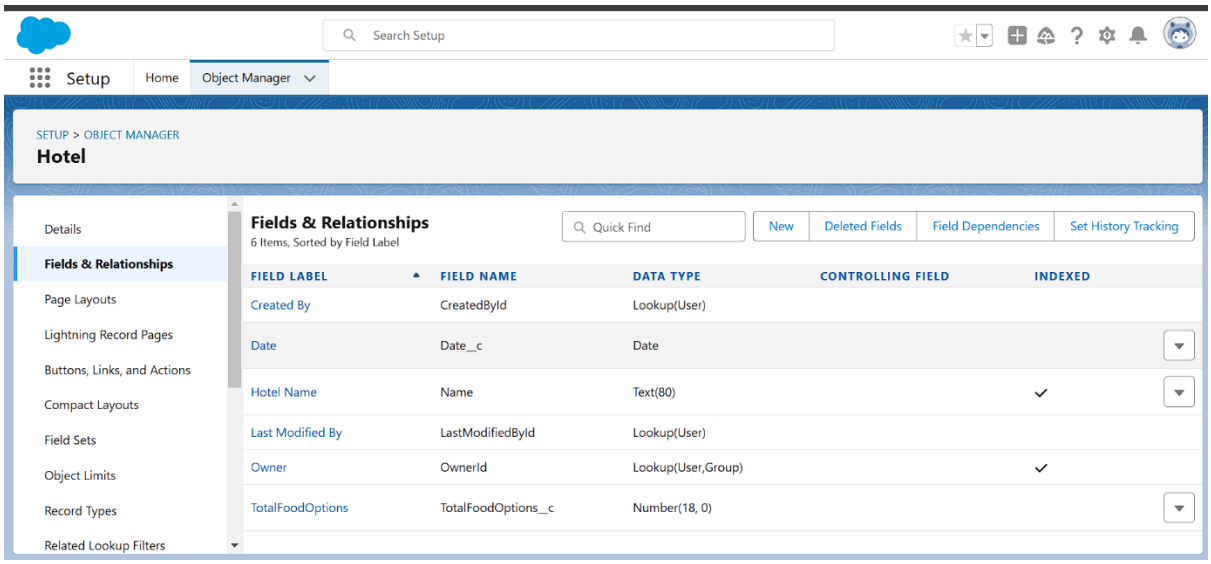
Sr. No.	**Field Name**	**Data Type**
1	Name	Text
2	Hotel	Hotel(Lookup)
3	Food Amount	

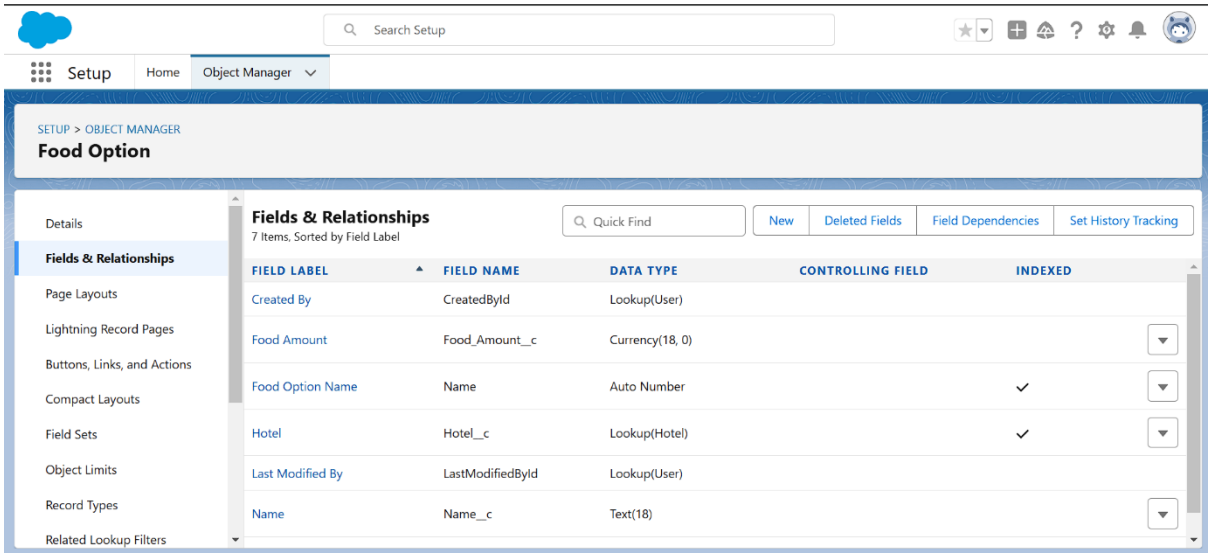
4. Create Fields For Food Option

Sr. No.	Field Name	Data Type
1	Name	Text
2	Hotel	Hotel(Lookup)
3	Food Amount	

5.Create Fields in the Customer Object

Sr. No.	Field Name	Data Type
1	Customer Name	Name
2	Discount Amount	Formula (Currency)
3	Discount Percent	

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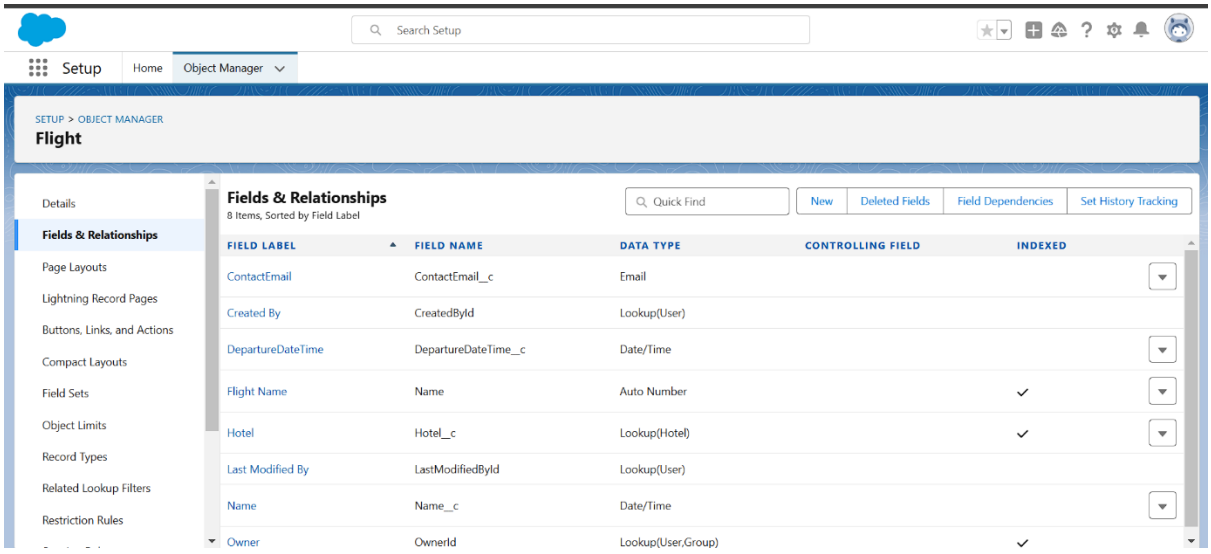
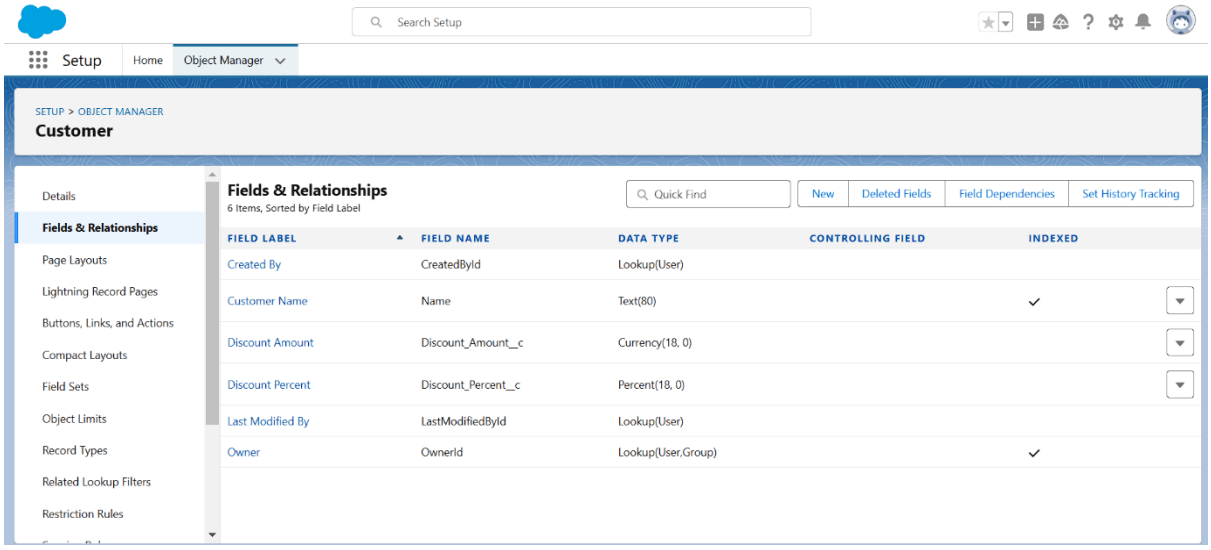
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Food Option
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Fields & Relationships
7 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Created By
CreatedById
Lookup(User)
Food Amount
Food_Amount__c
Currency(18, 0)
Food Option Name
Name
Auto Number
Hotel
Hotel__c
Lookup(Hotel)
Last Modified By
LastModifiedById
Lookup(User)
Name
Name__c
Text(18)


Search Setup
Setup
Home
Object Manager
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
Restriction Rules
Fields & Relationships
8 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
ContactEmail
ContactEmail__c
Email
Created By
CreatedById
Lookup(User)
DepartureDateTime
DepartureDateTime__c
Date/Time
Flight Name
Name
Auto Number
Hotel
Hotel__c
Lookup(Hotel)
Last Modified By
LastModifiedById
Lookup(User)
Name
Name__c
Date/Time
Owner
OwnerId
Lookup(User,Group)


Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Customer
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Fields & Relationships
6 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Created By
CreatedById
Lookup(User)
Customer Name
Name
Text(80)
Discount Amount
Discount_Amount__c
Currency(18, 0)
Discount Percent
Discount_Percent__c
Percent(18, 0)
Last Modified By
LastModifiedById
Lookup(User)
Owner
OwnerId
Lookup(User,Group)

Create Flow

Create the Flow for the discount for customer when the Amount is greater than 3000, some Amount of Discounts will be there if the Amount is between 1500 to 3000 so Some Amount of Discount will be there for them

Flow Procedure

Create 3 variable :

Variable > Api name > foId > text > Available for Input

Variable > Api name > csId > text > Available for Input

Variable >Api name > discount > Number

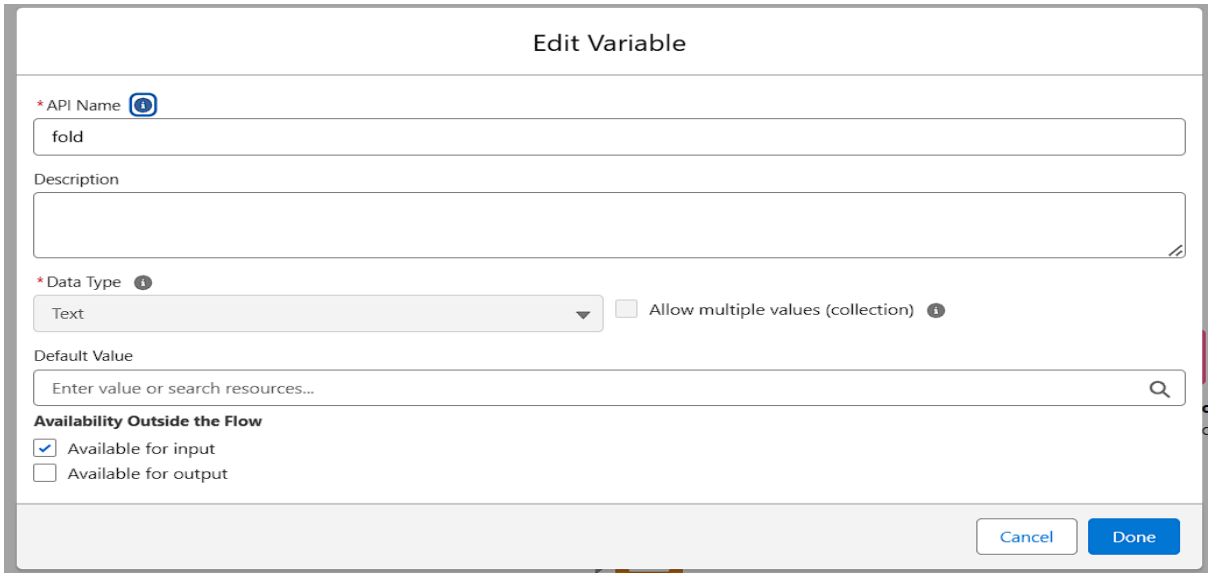
Flow Steps :

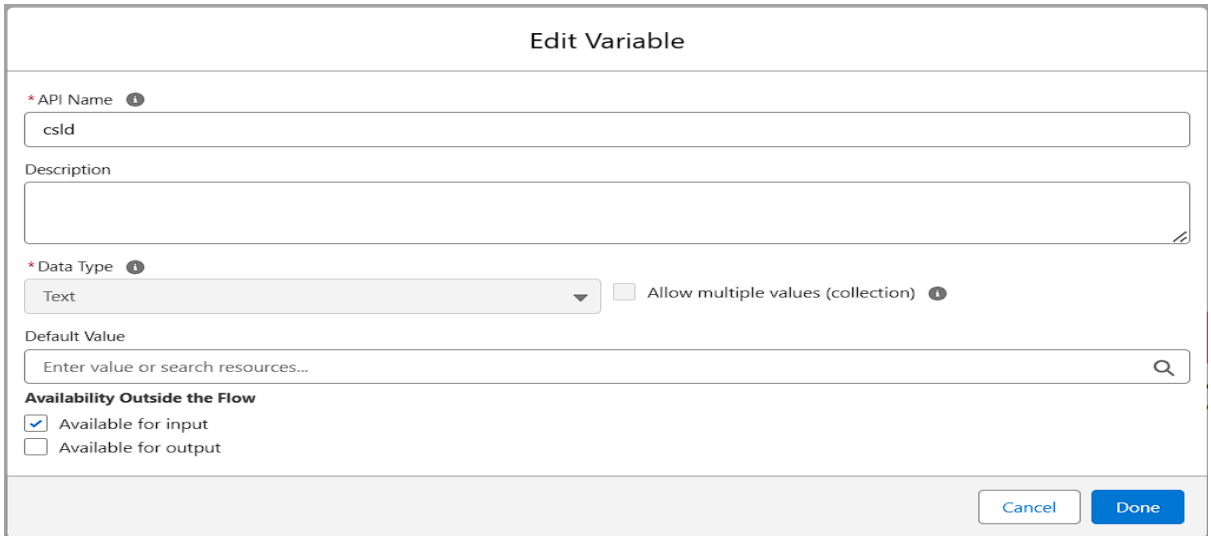
1.Get Records

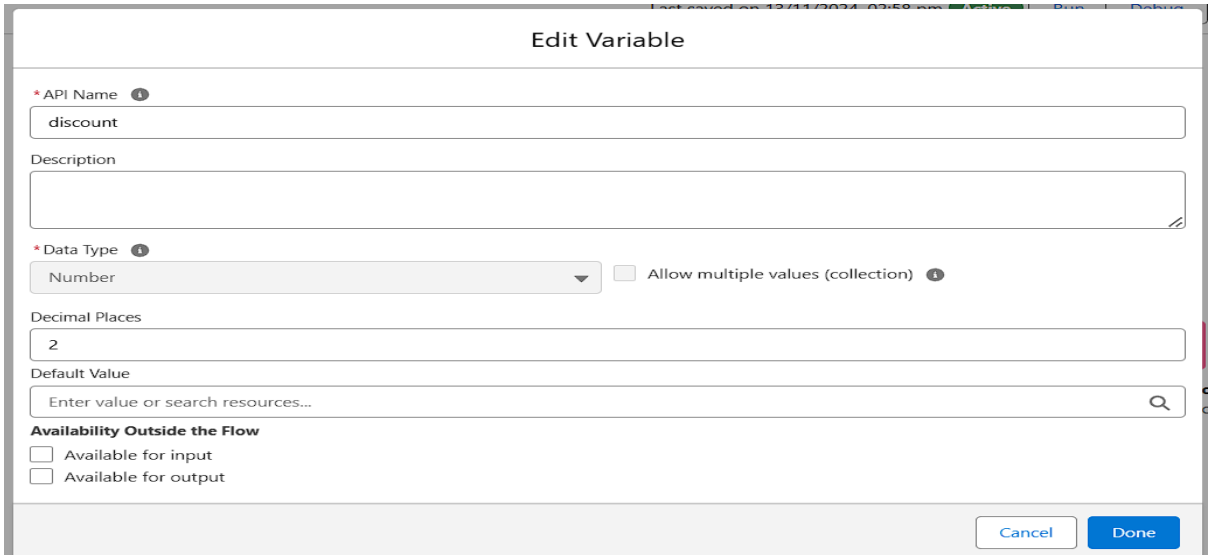
2. Decision Element: Create 2 Outcomes

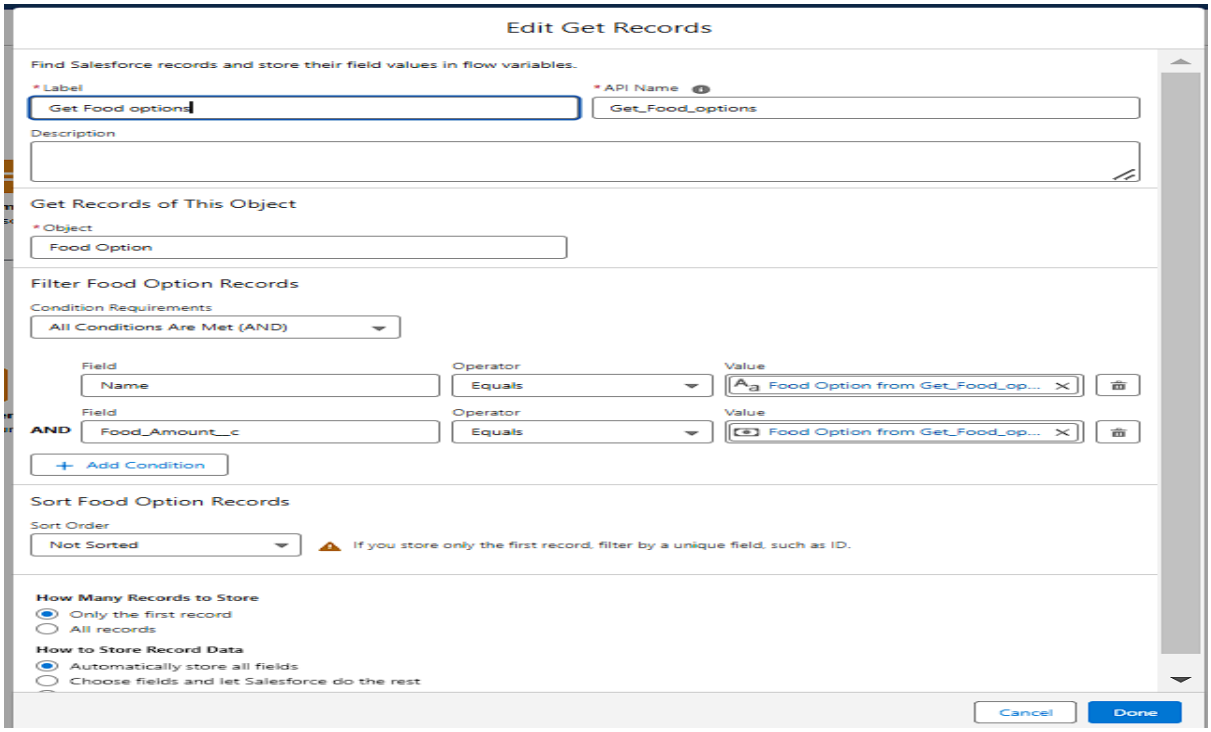
3. Take the 3 Assignments > Full Discount, Partial Discount & No Discount.

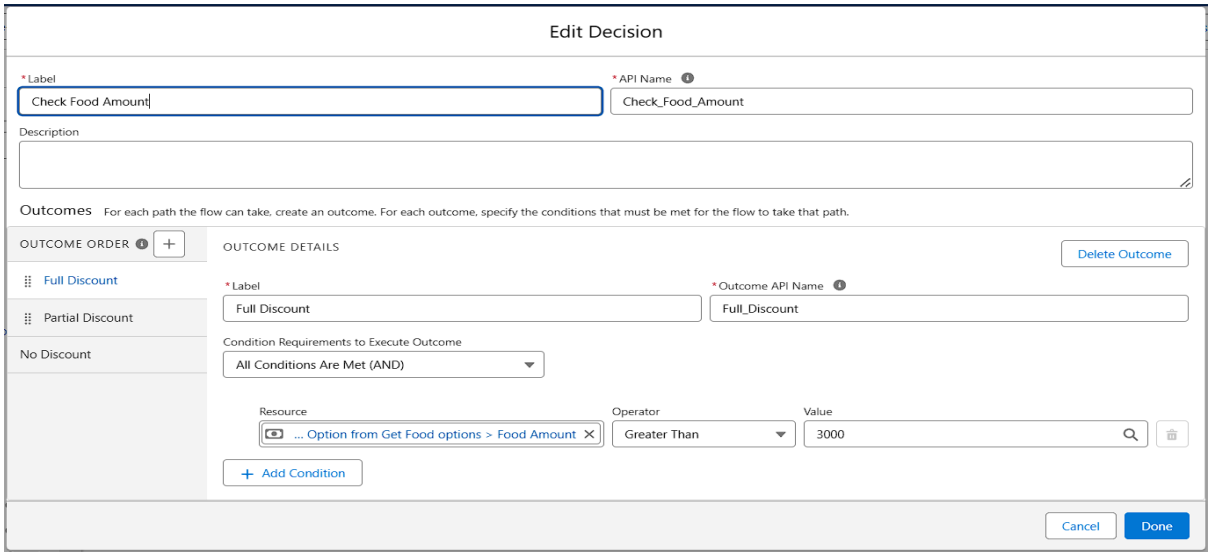
4. Update Record Element.

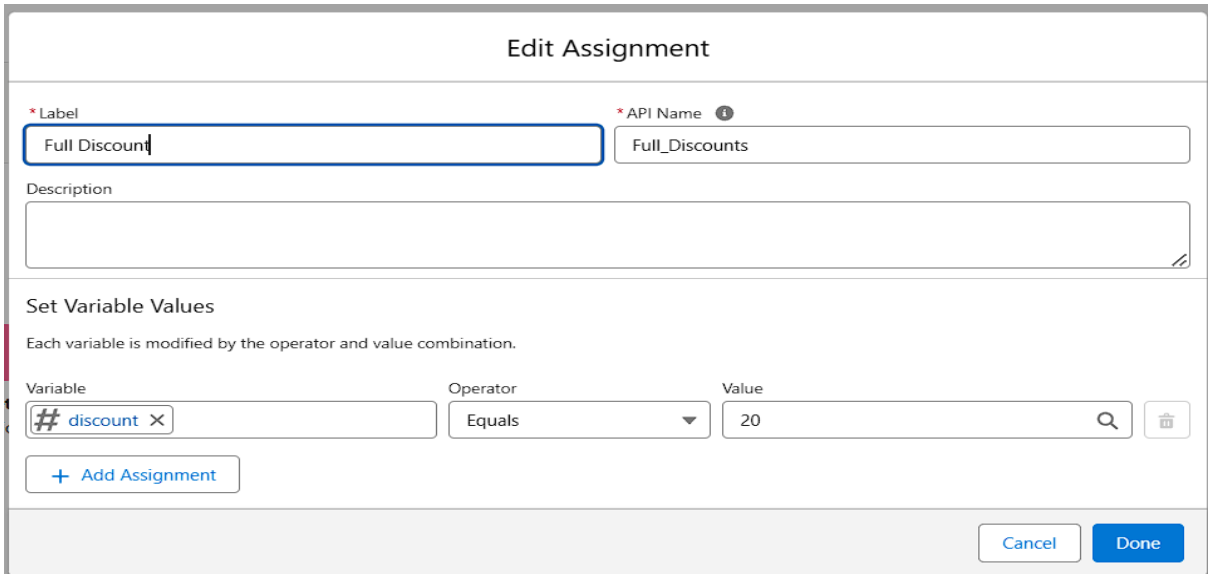


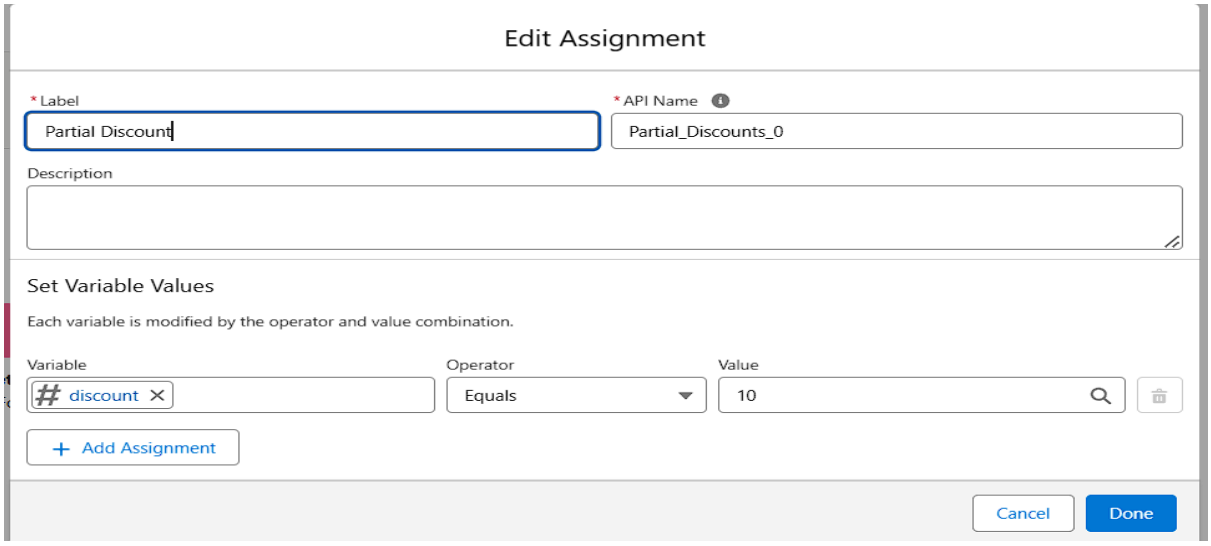

Edit Variable
* API Name
csld
Description
* Data Type
Text
Allow multiple values (collection)
Default Value
Enter value or search resources...
Availability Outside the Flow
Available for input
Available for output
Cancel
Done


Edit Variable
* API Name
discount
Description
* Data Type
Number
Allow multiple values (collection)
Decimal Places
2
Default Value
Enter value or search resources...
Availability Outside the Flow
Available for input
Available for output
Cancel
Done


Edit Get Records
Find Salesforce records and store their field values in flow variables.
* Label
Get Food options
* API Name
Get_Food_options
Description
Get Records of This Object
* Object
Food Option
Filter Food Option Records
Condition Requirements
All Conditions Are Met (AND)
Field
Name
Operator
Equals
Value
Food Option from Get_Food_op...
AND
Field
Food_Amount__c
Operator
Equals
Value
Food Option from Get_Food_op...
Add Condition
Sort Food Option Records
Sort Order
Not Sorted
If you store only the first record, filter by a unique field, such as ID.
How Many Records to Store
Only the first record
All records
How to Store Record Data
Automatically store all fields
Choose fields and let Salesforce do the rest
Cancel
Done


Edit Decision
*Label
Check Food Amount
*API Name
Check_Food_Amount
Description
Outcomes
For each path the flow can take, create an outcome. For each outcome, specify the conditions that must be met for the flow to take that path.
OUTCOME ORDER
Full Discount
Partial Discount
No Discount
OUTCOME DETAILS
Delete Outcome
*Label
Full Discount
*Outcome API Name
Full_Discount
Condition Requirements to Execute Outcome
All Conditions Are Met (AND)
Resource
... Option from Get Food options > Food Amount
Operator
Greater Than
Value
3000
Add Condition
Cancel
Done


Edit Assignment
*Label
Full Discount
*API Name
Full_Discounts
Description
Set Variable Values
Each variable is modified by the operator and value combination.
Variable
discount
Operator
Equals
Value
20
Add Assignment
Cancel
Done


Edit Assignment
*Label
Partial Discount
*API Name
Partial_Discounts_0
Description
Set Variable Values
Each variable is modified by the operator and value combination.
Variable
discount
Operator
Equals
Value
10
Add Assignment
Cancel
Done

Edit Assignment

*Label: No Discount
*API Name: No_Discount
Description:

Set Variable Values

Each variable is modified by the operator and value combination.

Variable	Operator	Value
# discount	Equals	0

+ Add Assignment

Cancel | Done

Edit Update Records

Update Salesforce records using values from the flow.

*Label: Update_Customer
*API Name: Update_Customer
Description:

***How to Find Records to Update and Set Their Values**

- ○ Use the IDs and all field values from a record or record collection
- ◉ Specify conditions to identify records, and set fields individually

Update Records of This Object Type

*Object: Customer

Filter Customer Records

Condition Requirements to Update Records: All Conditions Are Met (AND)

Field	Operator	Value
Id	Equals	csId

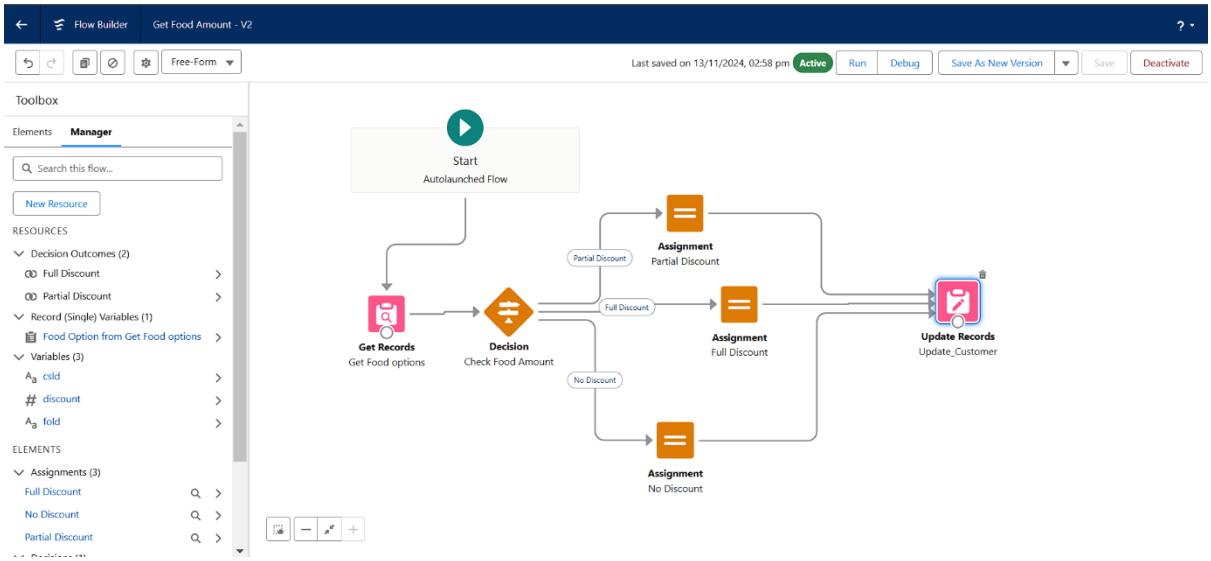
+ Add Condition

Set Field Values for the Customer Records

Field		Value
Discount_Percent__c	←	# discount

+ Add Field

Cancel | Done



Apex Triggers

Scenario: In the Hotel you have to ensure that when a new Food Option is added or updated, the corresponding Hotel's information is updated accordingly. For example, you might want to maintain a total count of food options for each hotel. To manage the things properly with perspective to the Hotel things should be clearly manageable for making the food options available with respect to hotels

Apex trigger With Handler

```
public class FoodOptionTriggerHandler {

    // Method to update hotel information based on food options

    public static void updateHotelInformation(List<Food_Option__c> newFoodOptions, List<Food_Option__c> oldFoodOptions, TriggerOperation operation) {

        Set<Id> hotelIdsToUpdate = new Set<Id>();
```

```
        // Collect unique Hotel Ids affected by food options changes
        for (Food_Option__c foodOption : newFoodOptions) {
            hotelIdsToUpdate.add(foodOption.Hotel__c);
        }
        // Update hotel information based on food options
        List<Hotel__c> hotelsToUpdate = [SELECT Id, Name,
TotalFoodOptions__c FROM Hotel__c WHERE Id IN
:hotelIdsToUpdate];
       for (Hotel__c hotel : hotelsToUpdate) {
            // Recalculate total food options count
            Integer totalFoodOptions = [SELECT COUNT() FROM
Food_Option__c WHERE Hotel__c = :hotel.Id];
            hotel.TotalFoodOptions__c = totalFoodOptions;
        }
        // Update hotels with new total food options count
        update hotelsToUpdate;
    }
}
```

Trigger

```
trigger FoodOptionTrigger on Food_Option__c (after insert, after
update, after delete) {
    If(trigger.isInsert && trigger.isAfter){
     FoodOptionTriggerHandler.updateHotelInformation(trigger.new);
    }
}
```

Apex Schedule

Create the Reminder mail for the customer who has booked the flight according to that booking set the Apex schedule so mail will be sent prior to 24hrs.

Note: Please create the required field for Scheduled Apex Code

Apex Schedule Class Solution

```
public class FlightReminderScheduledJob implements Schedulable {
    public void execute(SchedulableContext sc) {
        sendFlightReminders();
    }
    private void sendFlightReminders() {
        // Query for flights departing within the next 24 hours
        List<Flight__c> upcomingFlights = [SELECT Id, Name,
DepartureDateTime__c FROM Flight__c
                                    WHERE DepartureDateTime__c >=
:DateTime.now()
                                    AND DepartureDateTime__c <=
:DateTime.now().addDays(1)];
        for (Flight__c flight : upcomingFlights) {
            // Customize the logic to send reminder emails
            // For this example, we'll print a log message; replace this with
your email sending logic.
            System.debug('Sending reminder email for Flight ' +
flight.Name + ' to ' + flight.ContactEmail__c);
```

```
        // Example: Send email using Messaging.SingleEmailMessage
        Messaging.SingleEmailMessage email = new
Messaging.SingleEmailMessage();
        email.setToAddresses(new List<String>{
flight.ContactEmail__c });
        email.setSubject('Flight Reminder: ' + flight.Name);
        email.setPlainTextBody('This is a reminder for your upcoming
flight ' + flight.Name +
                               ' departing on ' + flight.DepartureDateTime__c);
        Messaging.sendEmail(new
List<Messaging.SingleEmailMessage>{ email });
      }
   }
}
```

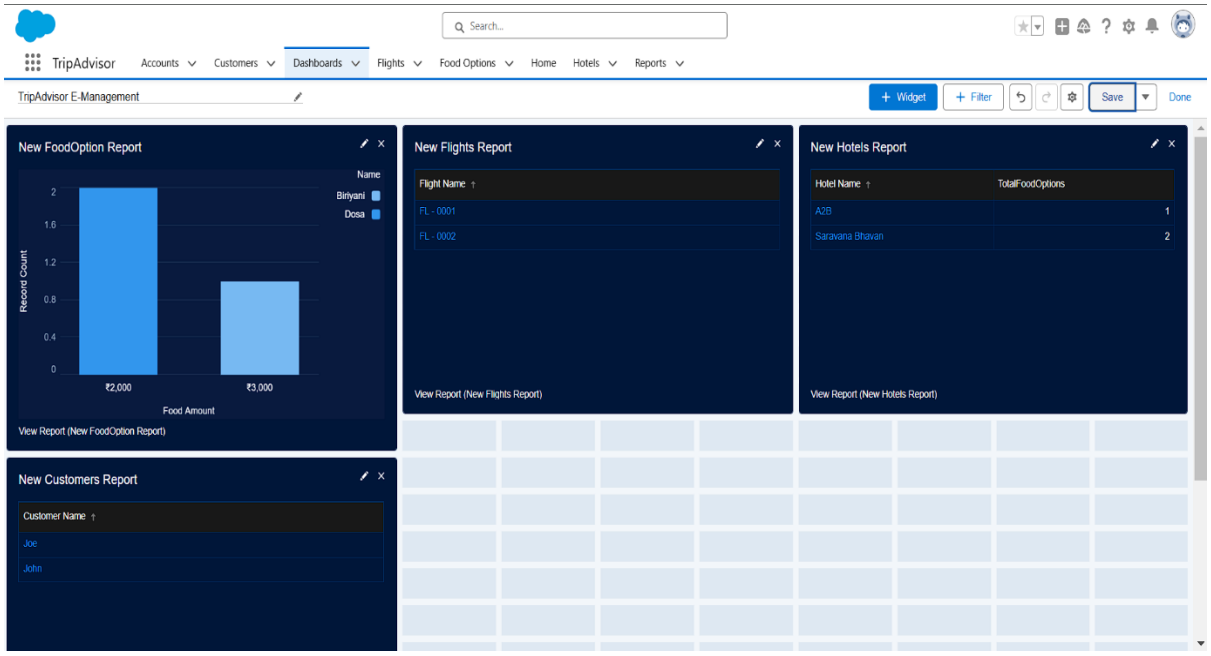
The FlightReminderScheduledJob class implements the Schedulable interface, and the execute method is where you put the logic to send reminder emails.

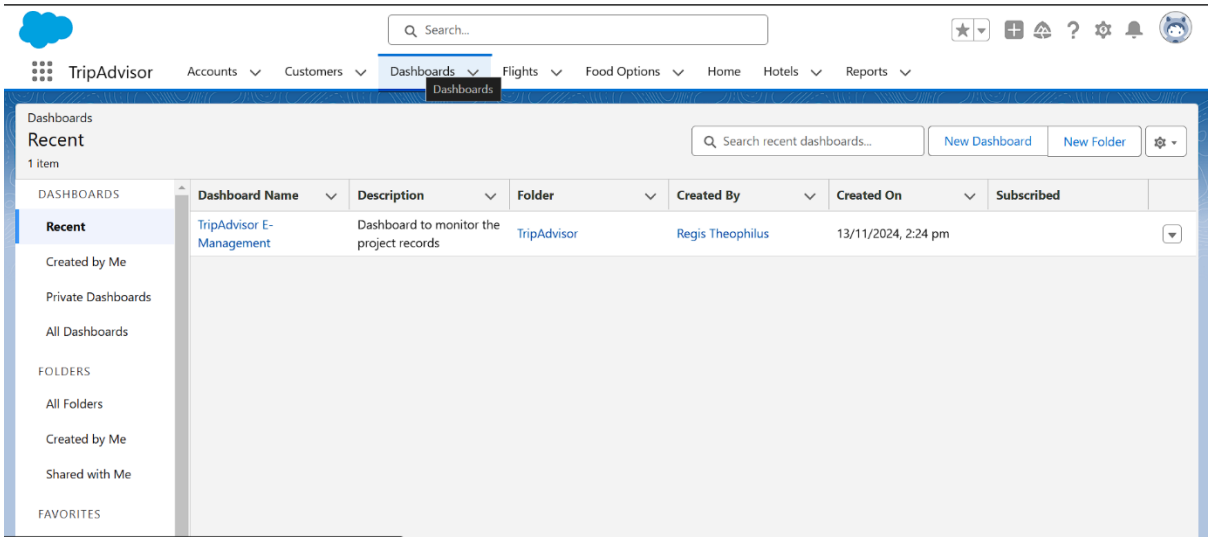
The sendFlightReminders method queries for flights departing within the next 24 hours. You can customize the query based on your specific requirements.

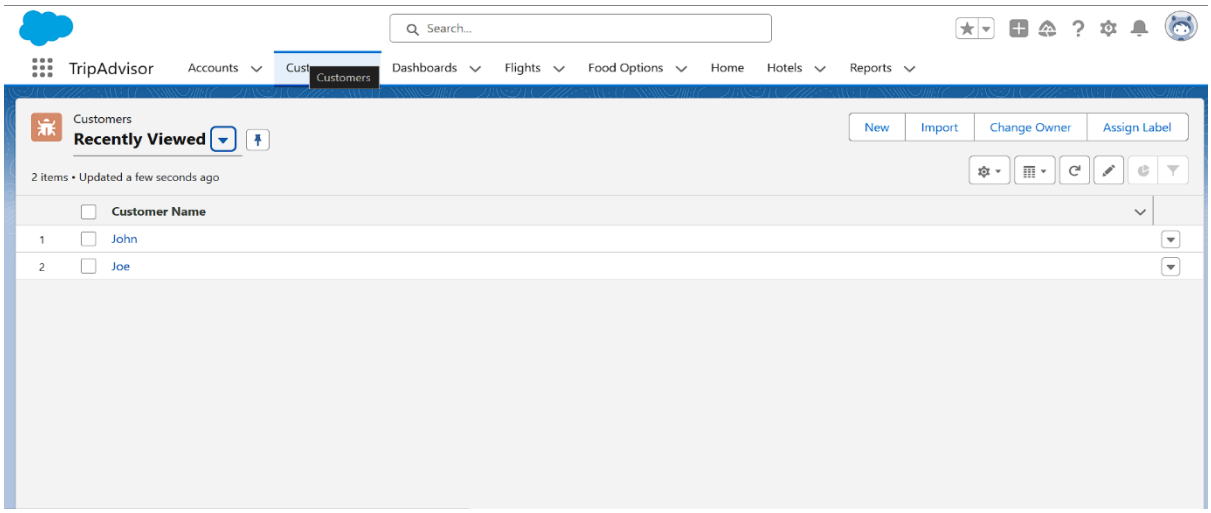
Create the Apex code in an anonymous Window to execute the Apex Code:

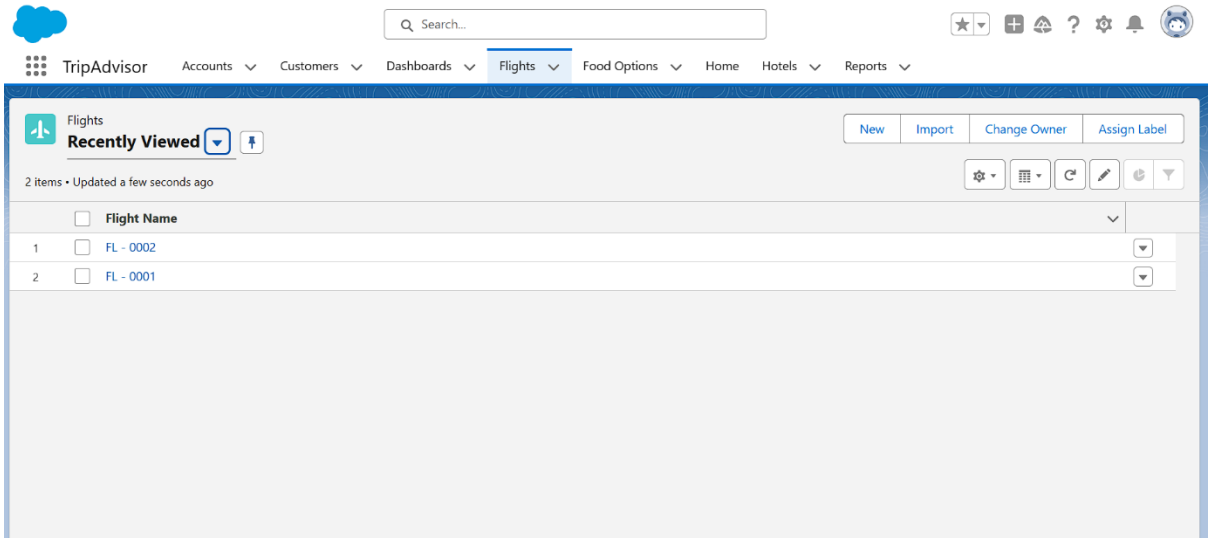
```
// Schedule the job to run every day at a specific time (e.g., 6 AM)
String cronExp = '0 0 6 * * ?';
System.schedule('FlightReminderJob', cronExp, new
FlightReminderScheduledJob());
```

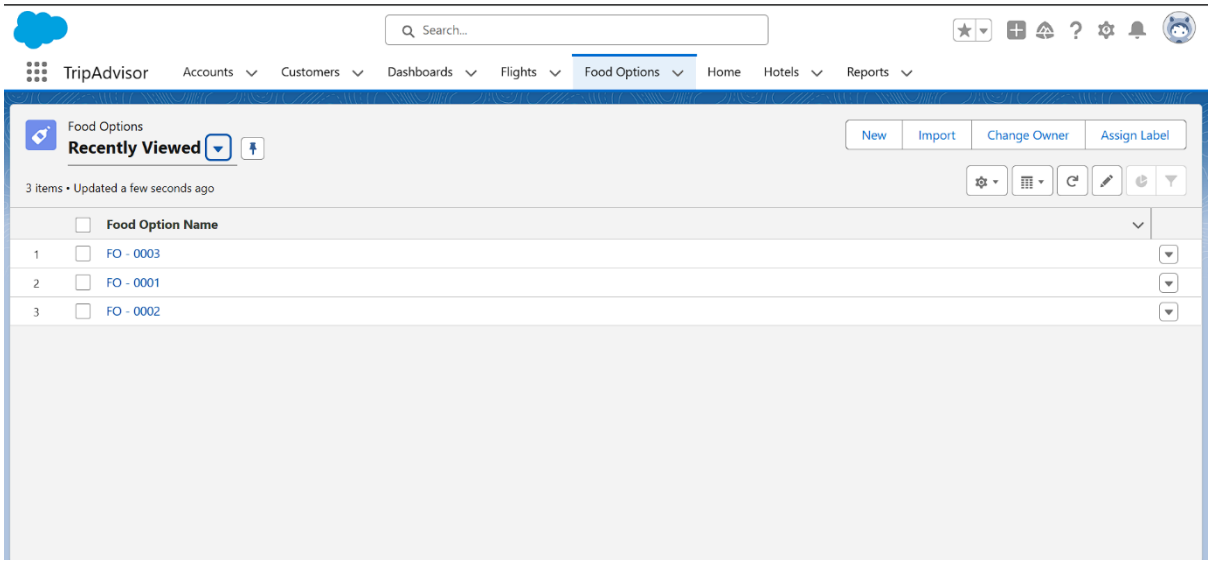
PROJECT OUTPUT:

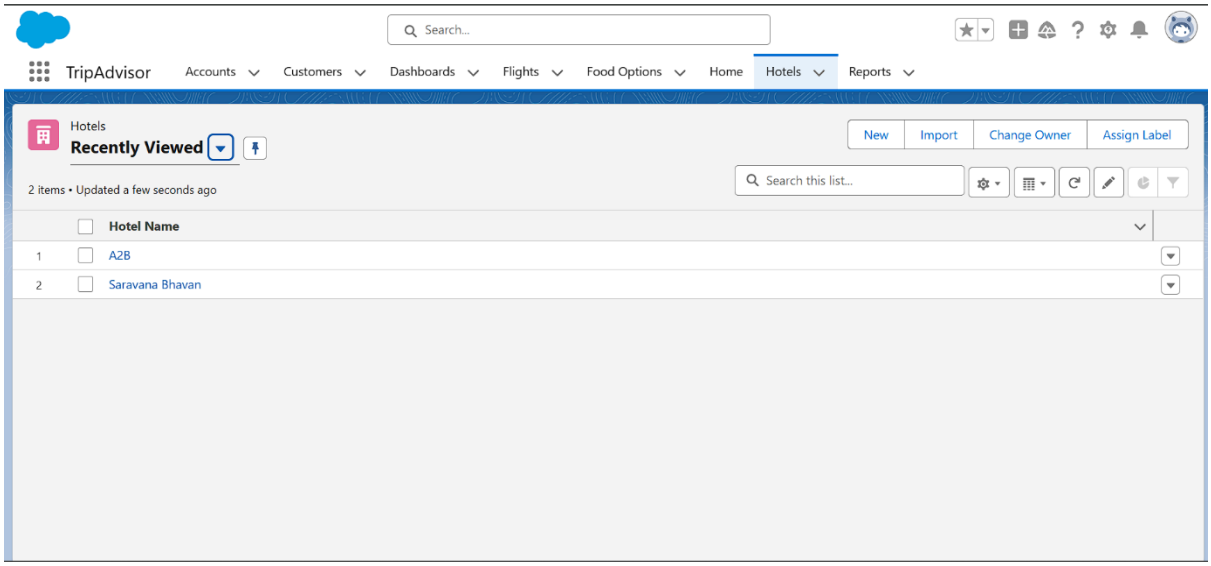


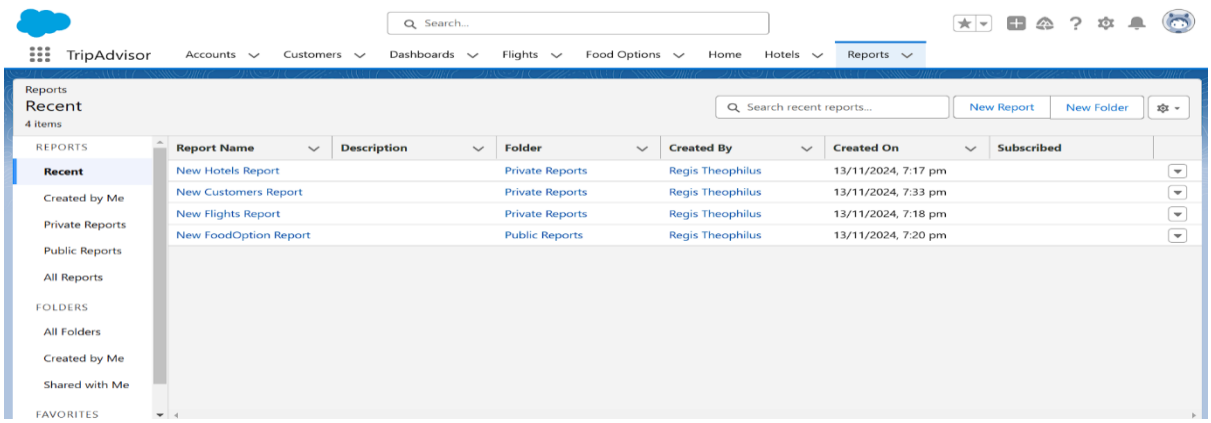





Search...
TripAdvisor
Accounts
Customers
Dashboards
Flights
Food Options
Home
Hotels
Reports
Flights
Recently Viewed
New
Import
Change Owner
Assign Label
2 items • Updated a few seconds ago
Flight Name
1
FL - 0002
2
FL - 0001


Search...
TripAdvisor
Accounts
Customers
Dashboards
Flights
Food Options
Home
Hotels
Reports
Food Options
Recently Viewed
New
Import
Change Owner
Assign Label
3 items • Updated a few seconds ago
Food Option Name
1
FO - 0003
2
FO - 0001
3
FO - 0002


Search...
TripAdvisor
Accounts
Customers
Dashboards
Flights
Food Options
Home
Hotels
Reports
Hotels
Recently Viewed
New
Import
Change Owner
Assign Label
Search this list...
2 items • Updated a few seconds ago
Hotel Name
1
A2B
2
Saravana Bhavan



Testing and Validation

- Unit Testing: Validate functionality at the object, field, and process levels.
- System Integration Testing (SIT): Ensure seamless interaction between Salesforce and third-party tools.
- User Acceptance Testing (UAT): Confirm the solution meets user expectations.
- Performance Testing: Test for scalability and system performance under peak loads.

Key Scenarios Addressed by Salesforce in the Implementation Project

1. Customer Reviews Management:

   Centralize and categorize customer feedback for quicker response and trend analysis.

2. Booking Automation:

   Automate booking workflows, including confirmations and follow-up reminders.

3. Service Requests and Escalations:

Enable efficient case management for customer inquiries and complaints.

4. Partner Collaboration:

Provide travel partners with self-service access to bookings and reports via an Experience Cloud portal.

5. Customer Engagement:

Use Marketing Cloud to deliver personalized campaigns based on user behaviour and preferences.

6. Real-time Analytics:

Leverage Einstein Analytics for actionable insights into booking patterns and review trends.

CONCLUSION

The TripAdvisor E-Management Project successfully demonstrates the transformative power of Salesforce in addressing complex business challenges within the travel industry. By leveraging Salesforce's comprehensive suite of tools, the project has created a scalable, customer-centric platform that streamlines operations, enhances customer engagement, and provides actionable insights for data-driven decision-making.