

# TRIPADVISOR E-MANAGEMENT APPLICATION

## 1. Project Overview

The TripAdvisor E-Management App is designed to be an all-in-one travel management solution. It integrates hotels, food options, flights, and customer data to enhance travel planning and booking efficiency. The primary goal is to streamline processes, automate reminders, and provide personalized customer experiences using Salesforce's advanced features. By leveraging Salesforce, this app supports operational efficiency, user satisfaction, and data-driven insights for travel agencies and users.

## 2. Objectives

### Business Goals:

- 1. Enhanced Customer Experience:** Simplify trip planning with easy access to hotel, flight, and food information.
- 2. Automation of Notifications:** Eliminate manual follow-ups by automating flight and booking reminders.
- 3. Operational Efficiency:** Centralize data for better management and decision-making.
- 4. Data Accuracy:** Dynamically update hotel information based on real-time food option changes.

### Specific Outcomes:

- Dynamic management of hotel food options.
- Automated notifications for flight schedules.
- Dashboards and reports for analyzing customer trends.

### 3. Salesforce Key Features and Concepts Utilized

#### 1. Custom Objects:

- **Hotel:** Stores hotel data, including the total number of food options available.
- **Food Option:** Tracks individual food items linked to hotels.
- **Flight:** Manages departure schedules and reminders.
- **Customer:** Stores customer details and personalized discount information.

#### 2. Apex Classes and Triggers:

- **FoodOptionTriggerHandler:** Updates hotel food option counts dynamically.
- **FlightReminderScheduledJob:** Automates reminders for upcoming flights.

#### 3. Automation Tools:

- **Flows:** Simplify specific business processes, like data validation.
- **Scheduled Jobs:** Ensure timely reminders for flights.

### 4. Detailed Steps to Solution Design

#### Data Models

##### 1. Custom Objects:

- **Hotel:** Tracks the total count of associated food options.
- **Food Option:** Links individual options to their respective hotels.
- **Flight:** Records flight schedules and customer contact details for notifications.

- **Customer:** Stores information about users, including discounts and preferences.

## 2. Relationships:

- **Hotel → Food Option:** Lookup relationship to manage associated food options.
- **Flight → Customer:** Links flight notifications to customers.

## Business Logic

- **Dynamic Food Option Updates:**  
Automatically updates the total food options count whenever a food item is added, updated, or deleted.  
Trigger Example:
  - Trigger Name: FoodOptionTrigger.
  - Purpose: Handle food option changes and update related hotel data dynamically.
- **Flight Reminders:**  
A scheduled Apex job queries flights departing in the next 24 hours and sends reminders to associated customers.

## 5. Testing and Validation

### Testing Approach:

#### 1. Unit Testing:

- Apex classes and triggers tested with over 90% code coverage.
- **Key Classes:**
  - **FoodOptionTriggerHandler**
  - **FlightReminderScheduledJob**

## **2. User Interface Testing:**

- Verified record updates on custom object pages.
- Tested dynamic behavior of food option counts on hotel pages.

## **6. Key Scenarios Addressed by Salesforce in the Implementation Project**

### **Scenario 1: Dynamic Food Option Count**

Whenever a food option is added, updated, or deleted, the app dynamically recalculates and updates the TotalFoodOptions field for the respective hotel.

### **Scenario 2: Flight Reminders**

The app sends automated reminders for flights departing within the next 24 hours, ensuring customers are notified on time.

### **Scenario 3: Personalized Customer Discounts**

The app calculates and applies discounts dynamically based on customer-specific conditions, improving user satisfaction.

## **7. Conclusion**

### **Summary of Achievements:**

- Delivered a robust travel management solution with Salesforce as the backbone.
- Automated key processes like food option tracking and flight reminders.
- Enhanced customer experience by providing dynamic updates and notifications.
- Improved data accuracy and operational efficiency through automation.

### **Future Scope:**

- Integration with third-party booking systems for real-time updates.
- Enhanced analytics using AI for travel trend predictions