Solution Architecture and Usage

Detailed information flow of Travel Booking site project, covering data movement between frontend and backend:

1. Customer Frontend Interaction (LWC on Experience Cloud Site)

- **Homepage:**
  The customer begins their journey on the homepage, which is built using Lightning Web Components (LWC) within the Salesforce Experience Cloud site. This serves as the entry point for browsing travel offerings.
- **Product Filtering & Sorting:**
  Customers can refine their search using filters such as product type (e.g., hotels, activities, transfers) and location (countries or cities). Based on the selected criteria, LWC components dynamically query the Salesforce backend to retrieve and display relevant products.
- **Multi-Currency Pricing:**
  When a customer selects a different currency, the LWC invokes a backend service to perform real-time price conversion. Currency exchange rates are maintained in Salesforce custom settings, ensuring accurate and consistent pricing across the application.
- **Product Details View:**
  Customers can select any product to view detailed information. The product details page dynamically fetches and displays data directly from Salesforce product records, ensuring up-to-date and accurate information.

2. Cart and Customer Details Collection

- Customer adds selected products to a Cart (frontend temporary data structure, stored in LWC)
- Customer provides personal details: name, trip start/end dates, contact number, email, etc.
- Client-side validations (Lightning Data Service and LWC validations) run first, then server-side validation rules ensure data integrity when data hits Salesforce objects.

3. Lead Creation and Storage

- On booking, an Apex callout from LWC invokes backend Apex method that:
  - Creates a Lead (Inquiry) record with customer details in Salesforce.

    - Creates related Lead Products records capturing the cart items.
- Validation rules enforce data hygiene on Lead and Lead Products objects.

4. Lead Conversion to Account, Contact, Opportunity

- Salesforce backend process or manual action converts the Lead to:
    - Account: stores basic and additional customer info.
    - Contact: stores details of co-travelers or passengers.
    - Opportunity: central object capturing the customer's travel booking details.
- Product data from Lead Products is copied into Opportunity Line Items using Apex triggers.

5. Quotes Management in Opportunity

- Multiple Quotes can be created under the Opportunity, storing alternative travel plans, pricing, etc.
- Quotes can be emailed using custom Visualforce pages with Apex for sending and tracking.
- Customers select and accept one quote, which triggers subsequent booking confirmation.

6. Booking Confirmation and Order Creation

- When quote is accepted:
    - Booking Confirmation (Order) records are created in Salesforce.
    - Products from Quote Line Items are copied into Order Line Items via Apex.
- Order represents the confirmed travel package.

7. Invoice and Itinerary Generation and Delivery

- Invoice is created automatically upon order confirmation, with line items copied to Invoice Line Items via Apex.
- Visualforce generate Invoice PDF which can be sent to customers with one click.
- Similarly, Itineraries are generated and emailed using Apex .

8. Security and Salesforce Features Leveraged

- Use of Salesforce Standard Objects (Lead, Account, Contact, Opportunity, Quote, Order, Product2).

- Custom Objects like Travel_CRM__Invoice__c, Travel_CRM__Travel_Invoice_Line_Items__c and custom fields to extend data capture.
- Validation Rules enforce data integrity at multiple stages.
- Record Types for Products to handle different customer and product types.
- Salesforce Apex handles data copying and business logic (triggers).
- Visualforce provide email invoice/itinerary generation.
- Lightning Message Channel (LMS) for component communication on the site.
- Profiles and Permission Sets ensure role-based access control.

Solution Flow Diagram (Conceptual)

```
[Customer - Experience Cloud (LWC)]
                |
                ▼
    [Filter & Sort Products]
                |
                ▼
[Fetch Product Data (Salesforce)]
                |
                ▼
  [Add to Cart + Enter Details]
                |
                ▼
       [Submit Booking]
                |
                ▼
  [Apex Processing (Backend)]
  - Create Lead (Inquiry)
  - Create Lead Products
                |
                ▼
       [Lead Conversion]
                |
                ▼
[Account + Contact + Opportunity]
       + Opportunity Line Items
                |
                ▼
       [Quote Generation]
```

|
▼
[Quote Emailed]
|
▼
[Quote Accepted]
|
▼
[Order + Order Line Items Created]
|
▼
[Invoice + Invoice Line Items]
|
▼
[Invoice PDF Generated & Sent]
|
▼
[Itinerary Generated & Sent]

Project Installation Guide

This document outlines the **prerequisites** and **post-installation configuration** required to set up the Travel CRM package in your Salesforce Organization.

Before Package Installation – Prerequisites

🔹 1. Create a Salesforce Developer Edition Org

If not already done, create a **Salesforce Free Developer Edition Org** from:
👉 https://developer.salesforce.com/signup

🔹 2. Enable Quotes

Purpose: To allow users to create, manage, and send quotes to customers.
Steps:

- Go to **Setup**.
- Enter **Quote Settings** in Quick Find.
- Click **Quote Settings**.

- Check **Enable Quotes**.
- Click **Save**.

🔹 3. Enable Multiple Currencies

Purpose: To manage sales in different currencies.
Steps (Option 1):

- Go to **Setup**.
- Enter **Manage Currencies** in Quick Find.
- Click **Enable Multiple Currencies**.
- Confirm and click **Save**.

OR (Option 2):

- Go to **Setup**.
- Enter **Company Information** in Quick Find.
- Click **Edit**.
- Set your default currency locale.
- Check **Activate Multiple Currencies**.
- Click **Save**.

🔹 4. Enable Custom Address Fields

Purpose: To use the standard Custom Address data type in your objects.
Steps:

- Go to **Setup**.
- Enter **User Interface** in Quick Find.
- Scroll to the **Setup section**.
- Check **Use Custom Address Fields**.
- Click **Save**.

✅ Post-Package Installation Configuration Steps

◆ 1. Assign Custom Page Layouts

Purpose: Apply the custom layouts delivered by the Travel CRM package.
Example: Assigning Account Page Layout

- Go to **Setup** > **Object Manager**.
- Search and select **Account**.
- Click **Page Layouts**.
- Click **Page Layout Assignment**.
- Click **Edit Assignment**.
- Select all Record Types and Profiles.
- Choose **Custom Account Layout**.
- Click **Save**.

👉 Repeat the above steps for objects like:

- Lead (Inquiry)
- Inquiry Product (custom)
- Contact
- Opportunity
- Opportunity Product
- Quote
- Quote Line Item
- Booking Confirmation (Order)
- Order Product
- Travel Invoice (custom)
- Travel Invoice Line Item (custom)

◆ 1.1 Assign and set Custom Valus in Product Family field in Product object (Required for this step)

- Go to **Setup** > **Object Manager**.
- Search and select **Product2** object
- Click **Fields/Relationships.**
- Search **Product Family** field and click and edit.
- Set the **Product family Picklist Values >** Click **New Button**

- Add three custom values: - **Hotel, Transfers and Activities**

◆ 2. Field Mapping: Lead to Account & Opportunity

Purpose: Ensure data continuity by mapping important fields.

Steps:

- Go to **Setup** > **Object Manager** > **Lead (Inquiry)**.
- Click **Fields & Relationships**.
- Click **Map Lead Fields**.
- Map the following:
  - **Trip Start Date** → Account & Opportunity
  - **Trip End Date** → Account & Opportunity
  - **Communication Email** → Account & Opportunity
- Click **Save**.

◆ 3. Add Products

Purpose: Create product entries that can be added to Opportunities or Quotes.
Steps:

- Go to the **Products** tab.
- Click **New**.
- Enter Product Name, Code, Description, and other details.
- Click **Save**.

◆ 4. Add and Activate Price Books

Purpose: Manage and assign prices to your products.
Steps:

- Open **App Launcher** > Search for **Price Books**.
- Click on **Standard Price Book**.
- Check **Active**.

- Click **Save**.

👉 You can also click **New** to create custom Price Books.

◆ 5. Assign Permission Sets

Purpose: Provide access to the Travel CRM package features.
Steps (for Booking Manager User):

- Go to **Setup** > Enter **Permission Sets** in Quick Find.
- Select **Booking Manager User**.
- Click **Manage Assignments**.
- Click **Add Assignments**.
- Select the user(s) you want to assign.
- Click **Next** > **Assign** > **Done**.

👉 Repeat for **Booking Guest User** permission set as needed.

◆ 5. Create Permission Set Access:

After installing the package, please complete the following steps to ensure proper access:

1. Go to **Setup.**
2. In the Quick Find Box, search for **Permission Sets**.
3. Click **New** Button.
4. Enter the Label Name:
    Label: UnPackaged Booking User. Or any Name.

    API Name: UnPackaged_Booking_User
5. Click **Save** Button.
6. Open the Newly Created permission set.
7. Navigate to **Object Settings**.
8. Click on **Order** object and Click **Edit**.
9. Scroll down to the **Field Permission** Section.
10. Locate the field **OpportunityId**.
11. Enable **Read Access** for this field and **save**.
12. Go to **Manage Assignments**.
13. Click **Add Assignments**.
14. Select the Users who need access.
15. Click **Assign** and **Done**.

📌 Summary Checklist

Task	Status
Developer Org Created	✅
Quotes Enabled	✅
Multiple Currencies Activated	✅
Custom Address Fields Enabled	✅
Custom Page Layouts Assigned	✅
Lead Field Mapping Completed	✅
Products Created	✅
Price Books Activated & Created	✅
Permission Sets Assigned	✅