

Sri Lanka Institute of Information Technology



Information Technology Project (IT2080)

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Group ID - 92

Pearlora – Travel Agency Management System

Activity 01

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Introduction

The story of **Pearlora Travel Agency**, which is set to begin operations in the near future, is a tale of future growth and a commitment to be providing the highest standards of travel service. The agency is firmly grounded in providing on time delivering personalized service and creating unforgettable travel experience for all its clients. However, like many businesses in the market

The Travel Agency Management system all offer features such as booking trips, arranging transportation, managing hotel reservations, and organizing events. The system will allow customers to browse available travel options, make bookings, and view personalized plans. The manager will have the ability to approve or disapprove customer requests, ensuring smooth operation and service delivery. Other travel services, such as guided tours or excursions, will also be accessible and bookable by customers through the system. This application will thus provide both clients and manager a portable, efficient way to manage travel agency activities, improving coordination and customer satisfaction.

Part – 01: Identifying the Business Requirement & Project Scope

1.1 Real world problems and solutions

Real-world problem:

- Risk of data loss, unauthorized access, and the instability to collect and update information on time.
- Low customers Engagement caused due Poor digital marketing and lack of personalized offers based on their budget and preferences.
- Poor payment and refund management: Customers often struggle with payment options, refund policies and cancellations.
- Communication challenges: Discomfort in notifying customers and employees regarding specific announcements, discounts, and travel advisories.
- Inability to manage the manual system.
- Dealy in customer inquiries.
- Booking and scheduling conflicts: Overbooking and poor tour synchronization.
- Lack of Real-Time: Delay in updating new travel details and current availability.
- Limited customer support like poor handling of inquiries, complaints and updating their experiences with the agency.
- Limited capacity of storage for customer records and other essentials documents.
- High risk of human errors during data processing and pricing calculations.
- Poor connectivity with the airlines, hotels, and rentals.

IT solutions:

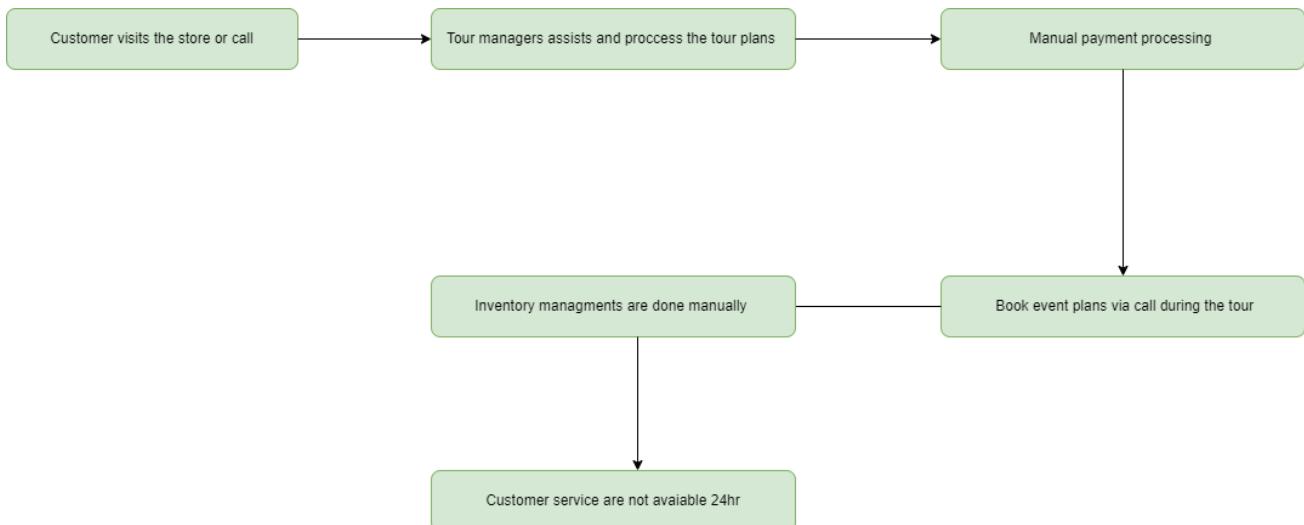
- Using multi-factor authentication (MAF)
- Regular automated backups
- Maintaining a cloud based secured Database.
- Implementing user friendly interface
- Provide announcements and offers via social media platform
- Introducing helpdesk, and customer relationship management system
- Multiple payment gateways and auto mated payment gateway.
- Introducing language translation option

1.2 User Identification and Benefits of the Software System

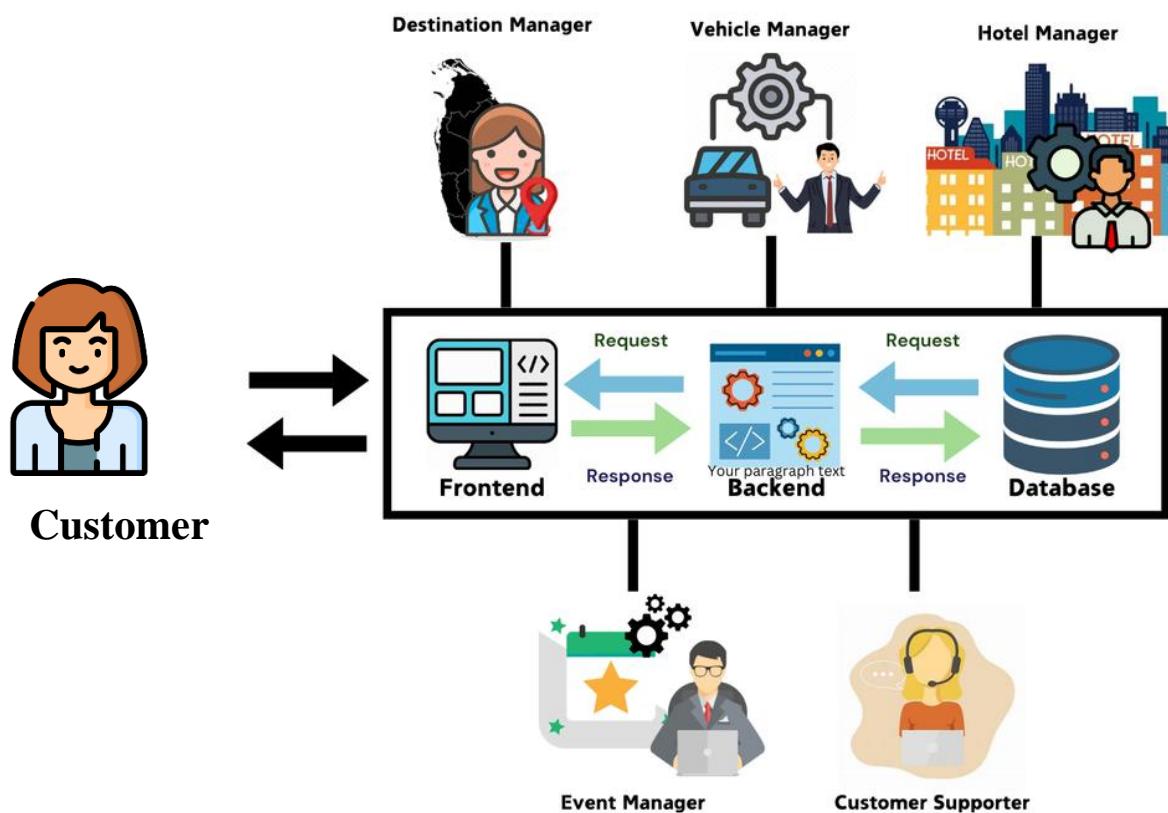
User	Benefits
Customers (Travelers)	<p>Browser and book trips.</p> <p>Personalized travel plans based on preferences.</p> <p>View real-time availability of tour packages.</p> <p>Online booking and payments.</p> <p>Real time notification.</p> <p>Customer support and queries.</p>
Travel Agents/ Staff	<p>Assist in booking management.</p> <p>Generate invoices and reports.</p> <p>Coordinate with service providers.</p> <p>Handle customer requests and issues.</p>
Destination Manager	<p>Update and administer travel destination and package data.</p> <p>Monitor and maximize provided travel experiences.</p> <p>Coordinate suppliers and services with local operators.</p> <p>Ensure quality control and compliance with travel standards.</p>
Hotel reservation managers	<p>Manage hotel bookings and room availability in real-time.</p> <p>Route customer or travel agency booking requests.</p> <p>Automate cancellation and confirmation processes.</p> <p>Increase efficiency in handling hotel bookings.</p>
Vehicle Renting Manager	<p>Manage rental vehicle bookings and availability.</p> <p>Automate pricing and availability updates.</p> <p>Coordinate with customers and travel agents for seamless transport services.</p> <p>Track and maintain vehicle usage history.</p>
Customer supporter	<p>Provide 24/7 support for customer queries and concerns.</p> <p>Respond to changes in bookings, cancellations, and special requests.</p> <p>Provide support and guidance along the travel process.</p> <p>Enhance customer satisfaction with prompt service.</p>

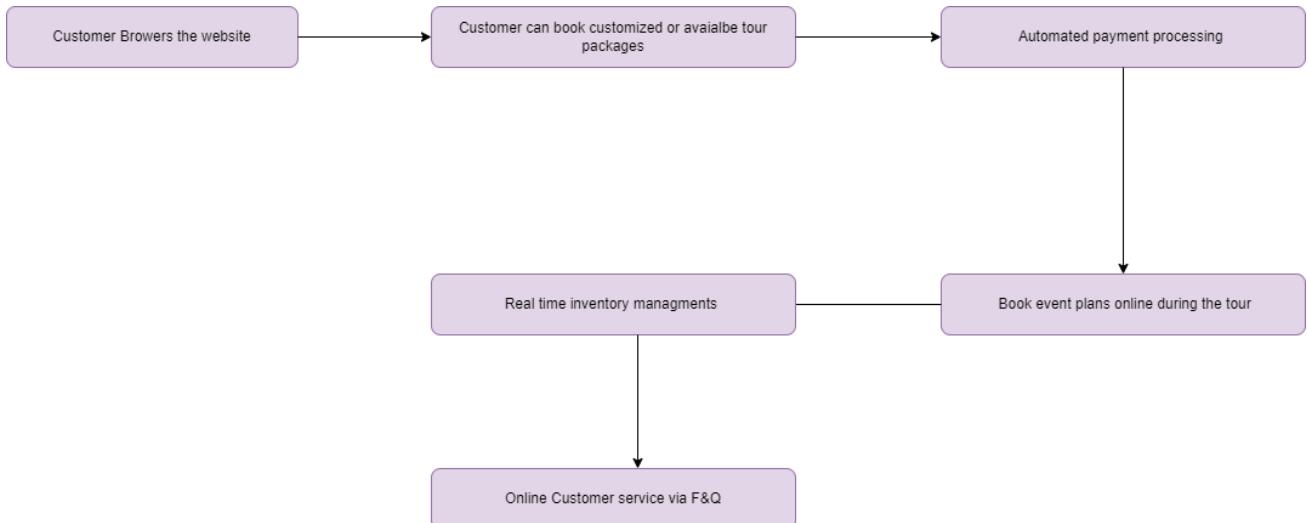
1.3 Business Process Diagram

Current Process



Expected process





1.4 Main Features

1. User Management

User registration and login (email, social media, or phone number)
Profile management (personal details, saved preferences, booking history)
Role-based access (admin, travel agents, customers)

2. Search & Booking System

Advanced search filters (location, date, price range, type of travel)
Multi-category booking (hotels, flights, car rentals, activities)
Real-time availability check

3. Payment & Transactions

Price comparison and special offers
Multiple payment gateways (credit/debit cards, PayPal, digital wallets)
Currency conversion
Secure transactions with encryption
Invoice generation and email confirmations.

4. Travel Package Management

Customizable tour packages (hotels + flights + activities)
Discount and promo code management.
Seasonal and group booking discounts.

5. Reviews & Ratings

Customer reviews and ratings for hotels, flights, and services
Verified booking reviews.
Review moderation by admins.

6. Itinerary & Notifications

Automated itinerary generation
Real-time notifications via email and SMS
Reminders for check-ins and upcoming trips

7. Admin Dashboard & Reports

Booking analytics and revenue tracking
User management and support system
Reports on top destinations, peak booking times, and trends

8. Integration & APIs

Google Maps integration for location-based search
API integration with airlines, hotels, and rental services
Weather and travel advisory updates.

9. Customer Support System

Live chat and chatbot support
FAQ section and travel guides
Support ticket system.

10. Mobile Responsiveness & App Support

Fully responsive web design
Mobile-friendly booking process
Option for mobile app integration in the future

1.5 User Requirements Analysis

Functional Requirements

1. Customers (They can access the front-end of the system)

User requirements –

- Customers can visit the Pearlore website.
- Customers can sign up onto the Pearlore website.
- Customers check the available feedback.
- Customers check and select the tour packages available or customaries packages.
- Registered customers can pay for the specific tour package through the website.
- Customers can leave ratings and feedback on their and trips.
- Customer can edit their own account details.
- Customer can delete his/her account when needed.
- Customer can delete his/her feedback.
- Customer will also be able to see payment history.

2. Destination Manager (Can access the backend of the system)

User requirements –

- Destination Manager can visit the Pearlore website.
- Destination Manager add new travel destinations with details such as name, country, description, attractions, and images.
- Destination Manager update existing destination details and deletes a destination if it is no longer available.
- Destination Manager can view a list of all available destinations.
- Destination Manager can define travel packages for each destination, including itinerary, price, duration, and accommodations.
- Destination Manager can modify package details, including discounts and special offers.
- Destination Manager can remove outdated packages.
- Destination Manager can set availability for each destination based on seasonality and capacity.
- Destination Manager can track and manage bookings for specific destinations.
- Destination Manager can assess customer booking details related to destinations.
- Destination Manager Generate reports on the most popular destinations.
- Destination Manager Track revenue and bookings per destination.
- Destination Manager Monitor seasonal trends in travel preferences.

3. Hotel reservation manager (Can access the backend of the system)

User requirements –

- Hotel Reservation Manager can log in to the system by entering login credentials.
- Hotel Reservation Manager can manage hotel room availability.
- Hotel Reservation Manager can update hotel pricing and special offers.
- Hotel Reservation Manager can view and manage customer reservations.
- Hotel Reservation Manager can confirm or cancel hotel bookings.
- Hotel Reservation Manager can generate reports on hotel occupancy and revenue.
- Hotel Reservation Manager can coordinate with travel agents regarding hotel bookings.
- Hotel Reservation Manager can handle refund and cancellation requests.
- Hotel Reservation Manager can manage agreements with hotels and service providers.
- Hotel Reservation Manager can receive and respond to customer feedback related to hotel stays.

4. Vehicle Renting Manager (Can access the backend of the system)

User requirements –

- Vehicle Renting Manager can log in to the system by entering login credentials.
- Vehicle Renting Manager can manage available rental vehicles.
- Vehicle Renting Manager can update vehicle pricing and rental policies.
- Vehicle Renting Manager can track vehicle availability and maintenance schedules.
- Vehicle Renting Manager can approve or reject vehicle rental requests.
- Vehicle Renting Manager can generate reports on vehicle rentals and revenue.
- Vehicle Renting Manager can coordinate with travel agents for transportation needs.
- Vehicle Renting Manager can handle refund and cancellation requests.
- Vehicle Renting Manager can manage agreements with vehicle suppliers and agencies.
- Vehicle Renting Manager can respond to customer inquiries regarding rental vehicles.

5. Event manager (Can access the backend of the system)

User requirements –

- Event manager can login to the system by entering login credentials.
- Event manager can Ability to create events for different destinations (e.g., festivals, conferences, guided tours).
- Event manager can Set event categories (e.g., adventure, cultural, business, etc.).
- Event manager can upload event images to attract users and provide a visual preview.
- Event manager can manage status (active, inactive, cancelled)
- Event manager can edit existing event details (e.g., change date, update location, or description)
- Event manager can send notifications to customers about event updates (e.g., event cancellations, new events, or last-minute offers)
- Event manager can generate reports on event popularity, sales performance, and customer demographics.

6. Customer supporter (Can access the backend of the system)

User requirements –

- Customer supporter can login to the system by entering login credentials.
- Customer supporter access the customer support dashboard to manage queries.
- Customer supporter view customer booking history for better queries
- Customer supporter check the customer feedback.
- Customer supporter can communicate and resolve the customer complaints.
- Customer supporter can update the community page.
- Customer supporter can add and delete blogs.
- Customer supporter can edit their own account details.
- Customer supporter can delete his/her account when needed.
- Customer can delete his/her feedback.
- Customer will also be able to see payment history.

1.6 Name of the Project

“Pearlora” represents an aura of the beauty, purity and elegance that mirrors the stunning visual, natural landscape of Sri Lanka.

Pearl referred to as the “Pearl of the Indian Ocean.”

Ora derived from the word “aura” - (sense of glowing energy, growth and vibrance)

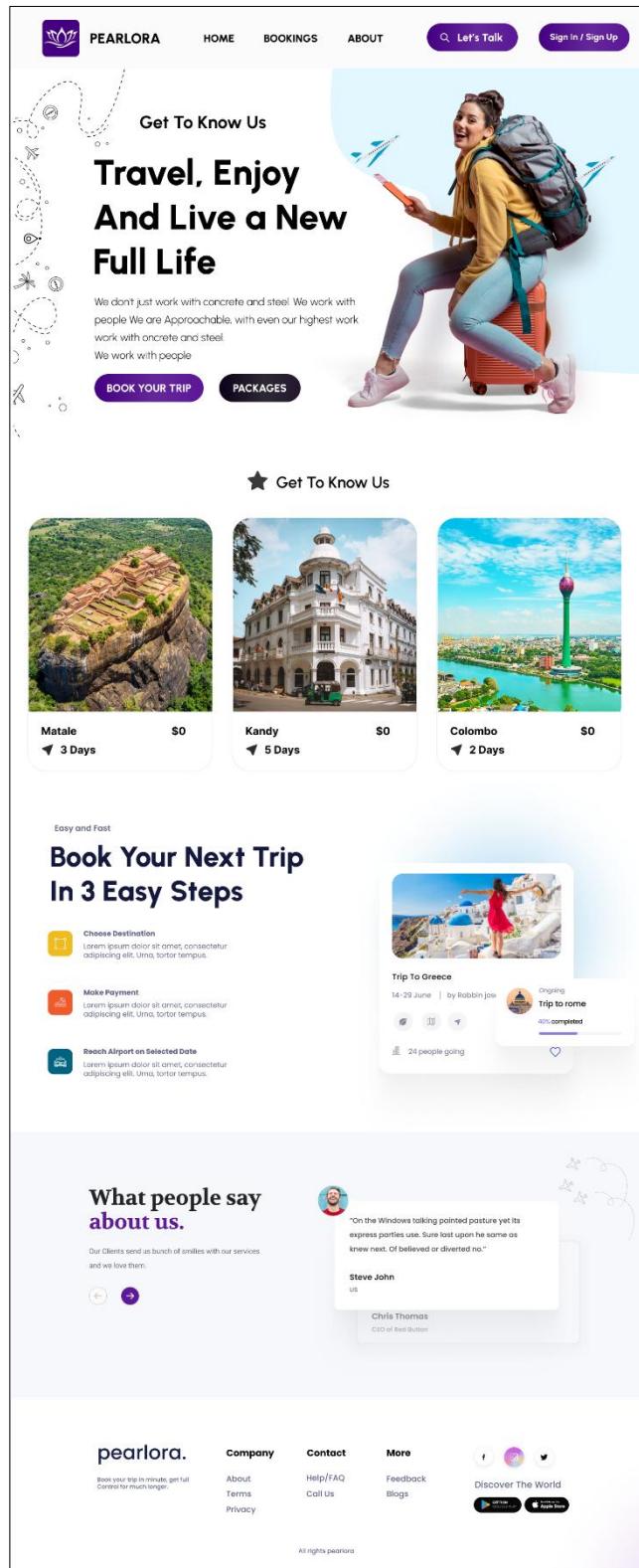


Logo

Part – 02: GUI & Database Design

2.1 GUI Screens

Home



Sign In



Welcome to Pearlora

Email

Enter your Email here

Password

Enter your Password

Sign In

Already have an account? [Sign Up](#)

OR

Sign up with Google

Sing up with GitHub

Sign Up



Welcome to Pearlora

Full Name

John Doe

Email

Enter your Email here

Password

Enter your Password

Create Account

Already have an account? [Log in](#)

OR

Sign up with Google

Sing up with GitHub

Destination Booking



PEARLORA

HOME BOOKINGS ABOUT

Let's Talk Sign In / Sign Up

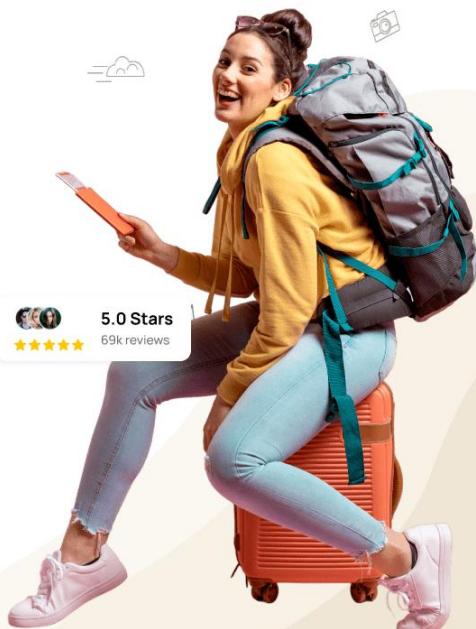
Explore the World

Destination Booking

Plan Your Perfect Trip

Explore the World with Ease

Booking your dream trip has never been easier! At pearlora, we offer a seamless way to find and book the perfect destination, tailored to your preferences and budget. Whether you're looking for a tropical beach escape, an adventurous mountain trek, or a cultural city tour, we've got you covered!



5.0 Stars
69k reviews

Destination

Start Date: 02 January 2024

Start Location: Kandy, Sri Lanka

End Location: Kandy, Sri Lanka

BOOK

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Vehicle Booking

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Book Your Ride – Fast, Easy & Reliable

Choose your vehicle, select your dates, and start your journey hassle-free.

Ride Now

Number of Passengers

Trip Start Date

DATA		HORA					
2024		Seg, julho 15					
<		Julho 2025 >					
Seg	Ter	Qua	Qui	Sex	Sab	Dom	
30	01	02	03	04	05	06	
07	08	09	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30	31	01	02	03	

Trip End Date

DATA		HORA					
2024		Seg, julho 15					
<		Julho 2025 >					
Seg	Ter	Qua	Qui	Sex	Sab	Dom	
30	01	02	03	04	05	06	
07	08	09	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30	31	01	02	03	

Vehicle Type

Bike

Three - Wheeler

Car

Van

Bus

Book & Go

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Hotel Booking

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Finest Luxury hotels
Over 100 Hotels
More than 25 places
that you can book
Customer care 24 hours

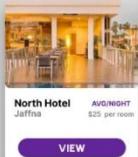
Your Destination Check in
Your Destination mm/dd/yy Search Now

Recommended Hotels



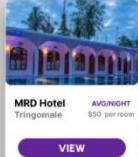
Mahaweli Hotel Avg/Night
Kandy \$50 per room

[VIEW](#)



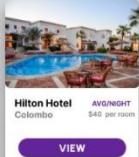
North Hotel Avg/Night
Jaffna \$25 per room

[VIEW](#)



MRD Hotel Avg/Night
Trincomalee \$30 per room

[VIEW](#)



Hilton Hotel Avg/Night
Colombo \$40 per room

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Hotel Details



Hotel Hilton in Colombo offers comfortable, well-furnished rooms at just \$40 per day. Conveniently located near major attractions, it features free Wi-Fi, 24-hour room service, and an on-site restaurant. Perfect for both business and leisure travelers seeking affordable, quality accommodation in the heart of the city.

Check in
mm/dd/yy

Check out
mm/dd/yy

Rooms
No of rooms

Days
No of days

Room type
Choose room type

[Over view](#) [FAQs](#) Book

Overview:
Hotel Hilton offers affordable comfort in the heart of Colombo, ideal for both business and leisure travelers. With modern amenities, convenient access to city attractions, and warm hospitality, it ensures a relaxing stay.
Rooms:
All rooms are well-furnished with free Wi-Fi, air conditioning, and 24-hour room service.
Room Types:
- Standard Room: Cozy and budget-friendly, perfect for solo travelers.
- Deluxe Room: Spacious with city views, ideal for couples or business stays.
- Family Suite: Designed for families, offering extra space and comfort.
Rates start at just \$40 per day.

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Event Booking

The screenshot shows the PEARLORA homepage. At the top, there's a navigation bar with the logo, "PEARLORA", "HOME", "BOOKINGS" (highlighted in red), "ABOUT", a search bar with "Let's Talk", and "Sign In / Sign Up". Below the navigation is a large banner with the text "Let's Celebrate Your Festival Party with Us" over a background image of a festive dinner table. Underneath the banner is a section titled "Latest Stories" featuring four grid-based story cards. Each card has a small thumbnail image, a title like "Merry Christmas", and a "Read more" button. Below these is another row of four cards with titles like "The Wedding" and "beach Party", each with a "Read more" button. At the bottom of the page is a prominent purple button labeled "Book Your Party Now!".

This screenshot shows the PEARLORA booking form page. The top navigation bar is identical to the homepage. The main area contains a large, light-gray form with several input fields: "Select your Event" (with a downward arrow icon), "Enter your name", "No of peoples", "Select the date" (with a calendar icon), "Select the time" (with a clock icon), "Select the location" (with a location pin icon), and "Do you need foods". Below the form is a "Submit" button. At the bottom of the page is the same footer as the homepage, including the "pearlora." logo, social media links, and download links for the "Discover The World" app.

Feedback

 PEARLORA

HOME BOOKINGS ABOUT

Let's Talk Sign In / Sign Up

Feedback



Name:

Contact Number:

Email Address:

Share your experience in scaling:

Worst Not Good Fine Look Good Very Good

Add your comments...

SUBMIT

Testimonials

What Customers Say

Embrace life's vastness, venture forth, and discover the wonders waiting beyond. The world beckons; seize its grand offerings now!



Annette Black
Director, Producer

Amazing app! Made my trip so memorable.



Annette Black
Director, Producer

Amazing app! Made my trip so memorable.



Annette Black
Director, Producer

TravelXplorer simplified my vacation planning.

WHAT WE SERVE

Top Values For You
Embrace life's vastness, venture forth,

Lot of choices
Embrace life's vastness, venture forth,

Best Tour Guide
Embrace life's vastness, venture forth,

Easy Booking
Embrace life's vastness, venture forth,

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ABOUT US

PEARLORA

Your Journey, Our Passion

At PEARLORA, we believe that travel is more than just visiting new places—it's about creating unforgettable experiences, discovering new cultures, and making lifelong memories. Whether you're looking for an adventurous getaway, a relaxing beach retreat, or a customized itinerary, we are here to craft the perfect trip for you.

Who We Are

Founded with a passion for exploration, [Your Agency Name] is a team of experienced travel experts dedicated to providing seamless and stress-free travel planning. From solo travelers to family vacations and corporate trips, we ensure that every journey is unique and tailored to your needs.



TRAVEL POINT

Why Choose Us?

Hay! Travelo there to help you find your dream holiday. Easy you just find where you want to go and buy the ticket.

Personalized Itineraries – Every trip is customized based on your preferences, budget, and travel goals.

Expert Guidance – Our travel specialists have firsthand experience and insider knowledge to help you plan the perfect getaway.

Hassle-Free Booking – We handle everything from flights and accommodations to local experiences and transport.

24/7 Support – Your comfort and safety are our priority. Our support team is always available to assist you.



Let's Make Your Travel Dreams Come True!

At pearlora, we don't just book trips—we create experiences that inspire. Whether you're planning your next adventure or need expert advice, we are here to help.

Our Services

- 🌐 International & Domestic Tours
- 🚗 Vehicle Booking & Rentals
- 🏨 Hotel & Resort Reservations
- 🏞 Adventure & Sightseeing Tours
- 🏛 Cultural & Heritage Trips
- 🏢 Corporate & Business Travel Packages



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2.2 Database Tables

User Management

Users

Column Name	Data Type	Description
user_id	INT (PK, AI)	Unique user ID
full_name	VARCHAR(100)	User's full name
email	VARCHAR(100)	User email (unique)
password	VARCHAR(255)	Encrypted password
phone_number	VARCHAR(15)	Contact number
user_role	ENUM('admin', 'customer', 'manager')	Role of the user
created_at	TIMESTAMP	Account creation time

Vehicle Booking

Vehicles

Column Name	Data Type	Description
vehicle_id	INT (PK, AI)	Unique vehicle ID
vehicle_type	VARCHAR(50)	Type of vehicle (Car, Bus, Van, etc.)
brand	VARCHAR(50)	Vehicle brand
model	VARCHAR(50)	Model name
capacity	INT	Number of passengers it can accommodate
availability	BOOLEAN	Availability status
price_per_day	DECIMAL(10,2)	Rental price per day

Vehicle_bookings

Column Name	Data Type	Description
booking_id	INT (PK, AI)	Unique booking ID
user_id	INT (FK)	Customer who booked
vehicle_id	INT (FK)	Vehicle booked
start_date	DATE	Booking start date
end_date	DATE	Booking end date
total_cost	DECIMAL(10,2)	Total booking cost
status	ENUM('pending', 'confirmed', 'cancelled')	Booking status

Hotel Booking

hotels

Column Name	Data Type	Description
hotel_id	INT (PK, AI)	Unique hotel ID
name	VARCHAR(100)	Hotel name
location	VARCHAR(255)	Address
contact	VARCHAR(50)	Contact number
rating	DECIMAL(2,1)	Average rating
price_per_night	DECIMAL(10,2)	Cost per night

hotel_bookings

Column Name	Data Type	Description
booking_id	INT (PK, AI)	Unique booking ID
user_id	INT (FK)	Customer who booked
hotel_id	INT (FK)	Hotel booked
check_in_date	DATE	Check-in date
check_out_date	DATE	Check-out date
total_cost	DECIMAL(10,2)	Total booking cost
status	ENUM('pending', 'confirmed', 'cancelled')	Booking status

Destination Booking

destinations

Column Name	Data Type	Description
destination_id	INT (PK, AI)	Unique ID
name	VARCHAR(100)	Destination name
description	TEXT	Brief description
location	VARCHAR(255)	Address
price	DECIMAL(10,2)	Entry fee/tour cost

destination_bookings

Column Name	Data Type	Description
booking_id	INT (PK, AI)	Unique booking ID
user_id	INT (FK)	Customer who booked
destination_id	INT (FK)	Destination booked
visit_date	DATE	Date of visit
total_cost	DECIMAL(10,2)	Total booking cost
status	ENUM('pending', 'confirmed', 'cancelled')	Booking status

Event Management

events

Column Name	Data Type	Description
event_id	INT (PK, AI)	Unique event ID
name	VARCHAR(100)	Event name
location	VARCHAR(255)	Address
date	DATE	Event date
time	TIME	Event time
price	DECIMAL(10,2)	Ticket price
organizer	VARCHAR(100)	Organized by

event_bookings

Column Name	Data Type	Description
booking_id	INT (PK, AI)	Unique booking ID
user_id	INT (FK)	Customer who booked
event_id	INT (FK)	Event booked
number_of_tickets	INT	Total tickets booked
total_cost	DECIMAL(10,2)	Total cost
status	ENUM('pending', 'confirmed', 'cancelled')	Booking status

Payments

payments

Column Name	Data Type	Description
payment_id	INT (PK, AI)	Unique payment ID
user_id	INT (FK)	Customer making payment
booking_id	INT (FK)	Related booking ID
amount	DECIMAL(10,2)	Payment amount
payment_method	ENUM('credit_card', 'paypal', 'bank_transfer')	Method used
status	ENUM('pending', 'completed', 'failed')	Payment status
transaction_date	TIMESTAMP	Date & time of transaction

Customer Support

support_tickets

Column Name	Data Type	Description
ticket_id	INT (PK, AI)	Unique ticket ID
user_id	INT (FK)	Customer raising query
subject	VARCHAR(255)	Ticket subject
message	TEXT	Issue description
status	ENUM('open', 'in_progress', 'resolved', 'closed')	Current status
created_at	TIMESTAMP	Time of request

Notifications

notifications

Column Name	Data Type	Description
notification_id	INT (PK, AI)	Unique notification ID
user_id	INT (FK)	Recipient
message	TEXT	Notification content
status	ENUM('unread', 'read')	Read status
sent_at	TIMESTAMP	Timestamp