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Department Name: UIC

Institute Name: Chandigarh University

Program: BCA (Advanced Web Development)



Case Study:

Title: Smart Travel Planner: A Tour Planning and Management Website Using Laravel



Objective:

The main objective of this project is to develop a **Tour Planning Website** that allows users to plan, book, and manage their travel trips easily.

The system aims to:

- Simplify trip creation and destination management.
- Provide an online platform for travel agencies and users.
- Automate trip scheduling, booking, and information management.
- Enhance user experience with a dynamic and responsive web interface.



Problem Statement:

In traditional travel planning, tourists often face difficulties such as:

- Lack of centralized information about destinations and trips.
- Manual booking and payment processes.
- Poor management of trip schedules and data records.
- Inefficiency in handling multiple users and agencies simultaneously.

Hence, a **Tour Planning Website** built on **Laravel** can automate these processes — providing real-time access, booking, and management of tour data through a secure and user-friendly web interface.



Tools and Concepts Used:

Languages & Frameworks:

- **Backend:** PHP (Laravel Framework)
- **Frontend:** HTML, CSS, Bootstrap, Blade Template Engine
- **Database:** MySQL
- **Server:** Apache (XAMPP / Laravel Artisan)
- **Version Control:** Git & GitHub



Concepts Used:

- *MVC (Model–View–Controller) Architecture*
- *CRUD Operations (Create, Read, Update, Delete)*
- *Routing and Middleware*
- *Eloquent ORM for Database Management*
- *Laravel Blade for Dynamic Views*
- *Authentication and Authorization*



System Design: Architecture Overview

The website follows MVC architecture:

- *Model: Defines data structure for trips, destinations, and users.*
- *View: Blade templates that render dynamic web pages.*
- *Controller: Handles user requests, business logic, and database communication.*

Database Design

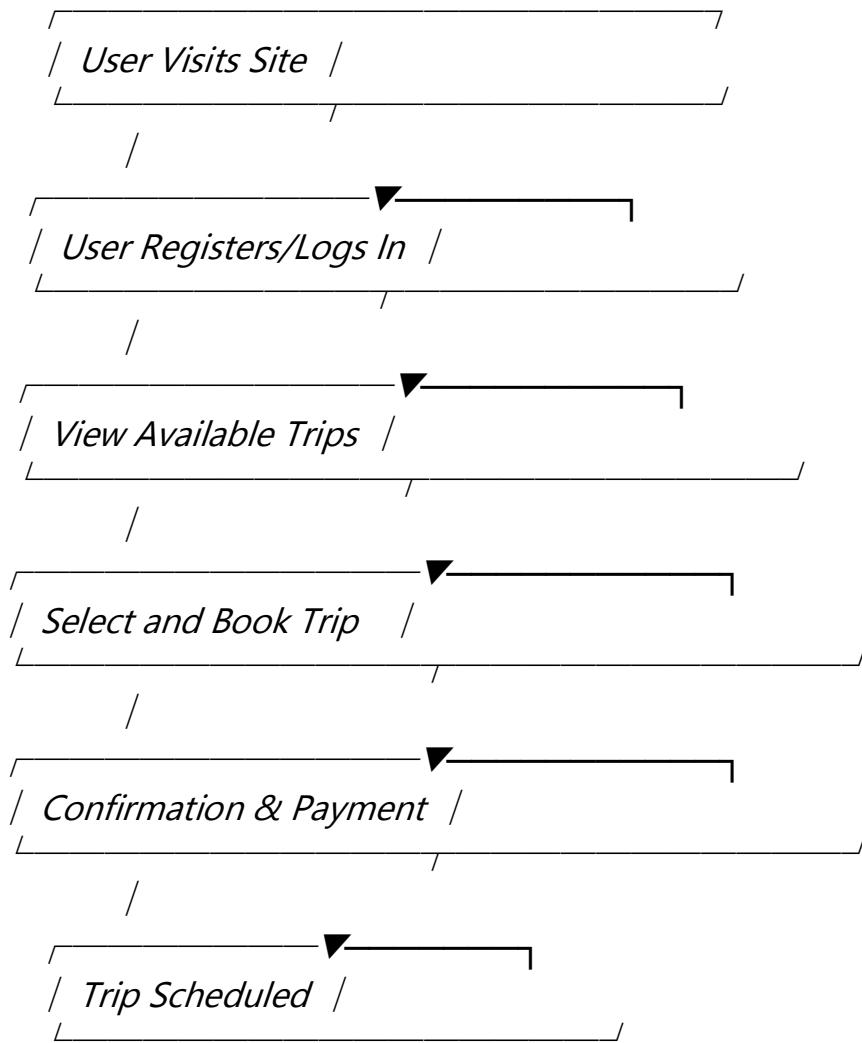
Tables:

1. *Users: stores user details (id, name, email, password).*
2. *Trips: stores trip details (id, title, destination, start date, end date, price).*
3. *Bookings: links users with trips (id, user id, trip_ id, status).*



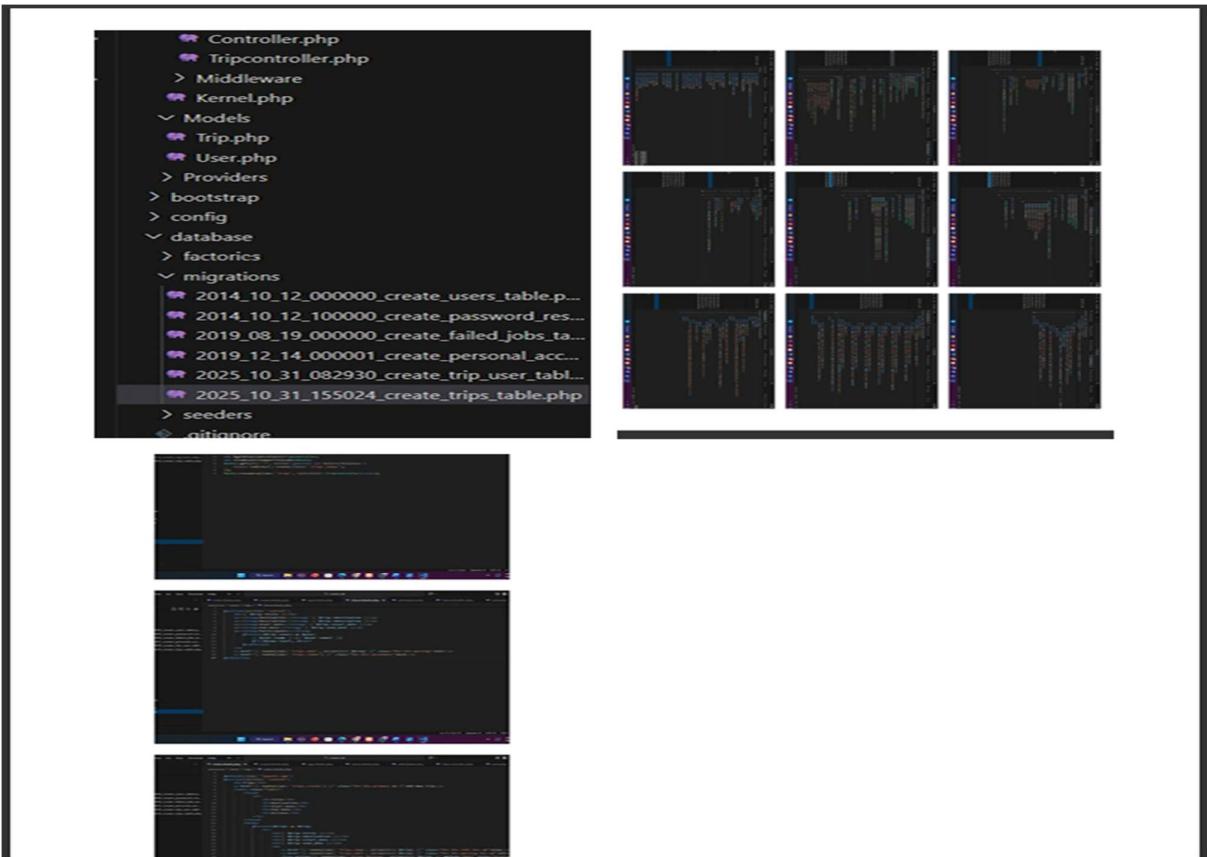
Flowchart / Algorithm

Flowchart:





Code Snippet / Module Explanation:



Explanation:

These routes define how user requests are handled.

- `/` → Displays the list of trips.
- `/trips/create` → Shows the form to add a new trip.
- `/Trips (POST)` → Saves a new trip to the database.

The **controller** connects views and models.

- `index ()` → Fetches all trips and sends them to the view.
- `create ()` → Displays the form for adding a trip.
- `store ()` → Validates user input and saves the trip in the database.



The **model** defines the trip data structure and connects it to the database.

- `$fillable` allows these fields to be stored when a trip is created.

The **view** displays the trip data to the user using **Blade templating**.

It loops through all trips and shows them in a styled HTML table.



Output Examples:

1 Home Page / Trips List:

Displays all available trips with destination, start, and end dates.

2 Add Trip Page:

Form to add a new trip with validation and submission success message.

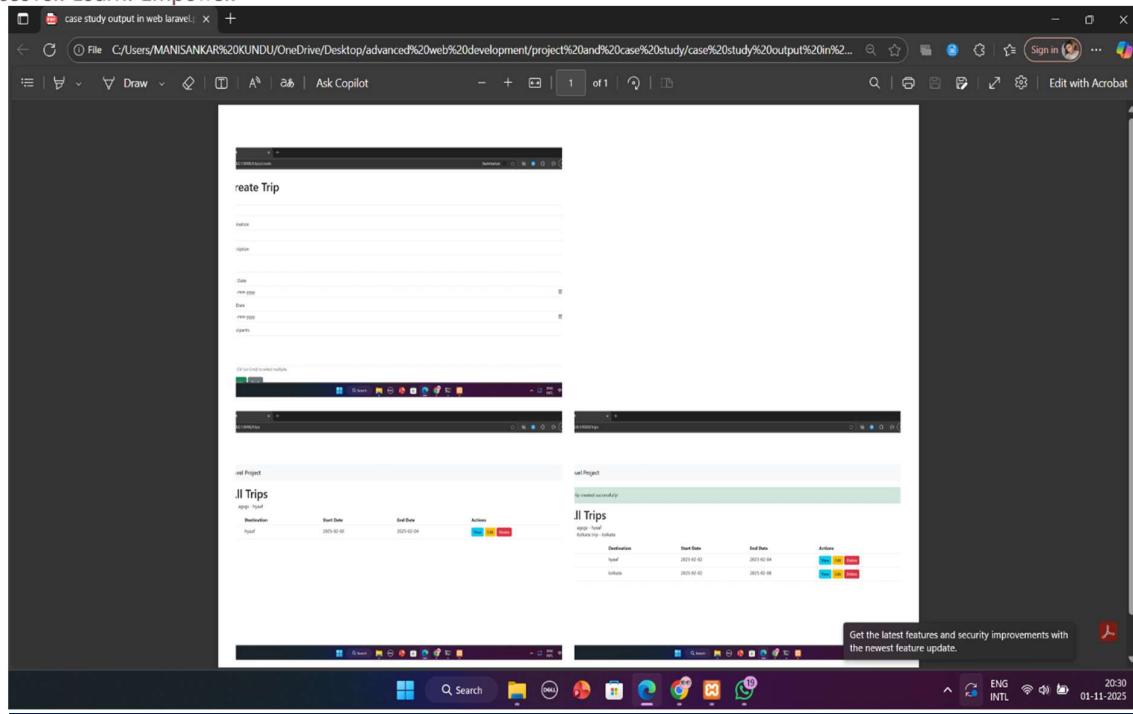
3 Booking Confirmation Page:

Shows successful trip booking message with trip details.



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Conclusion:

This project successfully demonstrates how Laravel can be used to develop a Tour Planning Website with features such as trip management, booking system, and database connectivity.

The MVC structure ensures maintainability and scalability, while Blade templates enhance the presentation layer.



Limitations and Future Scope:



Limitations:

- **Limited to basic CRUD operations (no online payment integration).**
- **Lacks an advanced search and filtering system.**
- **Does not include real-time weather or map integration.**



Future Scope:

- *Integration of Payment Gateway (Razor pay/Stripe) for online bookings.*
- *Adding Google Maps API for route and destination visualization.*
- *Implementing AI-based travel recommendations.*
- *Adding Admin Dashboard for analytics and reporting.*
- *Developing a mobile application using Laravel API backend.*