

20PCSC53J- Database Technologies

NAME

DHIVYA S

CLASS

M. TECH (FullStack Development)

ROLL

PA2312053010001

Inference Document

Tourly Travel Agency Website

Overview:

Tourly is a modern travel agency website designed to provide users with a seamless booking experience for their dream vacations. The website offers a range of features, including dynamic destination search, package browsing, and interactive galleries, all wrapped in an elegant and user-friendly interface.

Key Features:

1. Header Section:

- Includes branding elements like the logo and helpline number for easy access.*
- Navigation buttons and social media links facilitate seamless navigation and engagement.*

2. Main Content Sections:

- Hero Section: Engaging hero section with clear messaging and prominent call-to-action buttons for registration and login.*
- Tour Search Section: Dynamic destination search form with PHP integration for fetching destinations from a database.*
- Popular Destination Section: Interactive section displaying popular destinations with the option to view more attractions dynamically.*
- Package Section: Database-driven package listings presented in visually appealing cards with key details and booking options.*
- Gallery Section: A visually stunning gallery showcasing traveler photos to inspire users and enhance engagement.*
- Call-to-Action Section: Encourages users to take action by contacting the agency or subscribing to updates.*

3. Footer Section:

- Includes essential contact information, subscription form, and links to important pages like privacy policy and FAQs.*
- Accessibility features ensure all users can access and navigate the website effectively.*

4. JavaScript Functionality:

- Popup Forms: JavaScript controls the opening and closing of registration, login, and booking forms, providing a seamless user experience.*
- Form Submission Handling: Asynchronous form submission using Fetch API ensures immediate feedback to users and robust error handling.*

Recommendations:

- Enhance code readability and collaboration by adding comments to explain complex logic.*
- Implement client-side form validation to improve user experience and prevent invalid data submission.*

- Ensure the website is fully responsive and optimized for various devices and screen sizes.
- Apply security best practices to protect user data and prevent common vulnerabilities.
- Optimize code and assets for improved page load times and overall performance.

Step 1: Unnormalized Form (UNF)

Pre-Normalization Tables:

1. ****Accommodations****

- `accommodation_id` (Primary Key)
- `name`
- `destination_id` (Foreign Key)
- `description`

2. ****Attractions****

- `attraction_id` (Primary Key)
- `name`
- `location`
- `description`

3. ****Destinations****

- `destination_id` (Primary Key)
- `name`
- `city`
- `state`
- `country`
- `description`

4. ****Itineraries****

- `itinerary_id` (Primary Key)
- `user_id` (Foreign Key)
- `destination_id` (Foreign Key)
- `start_date`
- `end_date`
- `budget`

5. ****Packages****

- `package_id` (Primary Key)
- `title`
- `description`
- `duration`
- `capacity`
- `location`
- `reviews`
- `rating`
- `price`
- `image`

6. ****Tour Inquiries****

- `inquiry_id` (Primary Key)
- `destination_id` (Foreign Key)
- `user_id` (Foreign Key)
- `people`
- `checkin`
- `checkout`
- `inquiry_date`

7. ****Users****

- `user_id` (Primary Key)
- `username`
- `email`
- `password`

Step 2: First Normal Form (1NF)

In 1NF, each column should contain atomic values, and there should be no repeating groups.

The tables provided in the UNF are already in 1NF.

Step 3: Second Normal Form (2NF)

In 2NF, all non-key attributes should be fully functional dependent on the primary key.

The tables provided in the UNF are already in 2NF.

Step 4: Third Normal Form (3NF)

In 3NF, there should be no transitive dependencies.

The tables provided in the UNF are already in 3NF.

The tables provided in the UNF are already in a well-organized form, adhering to the principles of normalization up to the Third Normal Form (3NF). Therefore, there are no further normalization steps required. These tables should efficiently store and manage the data while ensuring data integrity and minimizing redundancy.

Conclusion:

Tourly is a sophisticated travel agency website that combines elegant design with powerful functionality to deliver an exceptional user experience. With dynamic content, seamless navigation, and interactive features, Tourly caters to the needs of modern travellers, inspiring them to embark on unforgettable journeys.