PROJECT REPORT

On

TOUR BOOKING APPLICATION

Submitted in partial fulfilment of the requirement for the Course
FSE (22CS037)
of
COMPUTER SCIENCE AND ENGINEERING
B.E. Batch-2022
in
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Under the Guidance of
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(Annexure –C)

CERTIFICATE

This is to be certified that the project entitled “TOUR BOOKING APPLICATION” has been submitted for
the Bachelor of Computer Science Engineering at Chitkara University, Punjab during the academic semester
January 2024- May-2024 is a bonafide piece of project work carried out by NISHIT RANJAN (2210991991) and PARTH KAUSHAL (2210992030) towards the partial fulfillment for the award of the course Integrated Project (CS 203) under the guidance and supervision of Mr. RAHUL SINGH RAJPUT .

Sign. of Project Guide :

MR.RAHUL SINGH RAJPUT

(Annexure –D)

CANDIDATE'S DECLARATION

We, NISHIT RANJAN (2210991991), PARTH KAUSHAL (2210992030) AND KAVAY(2210991772) of the Chitkara University, Punjab hereby declare that the Integrated Project Report entitled TOUR BOOKING APPLICATION is an original work and data provided in the study is authentic to the best of our knowledge. This report has not been submitted to any other Institute for the award of any other course.

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(Annexure -E)

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Research proposal

on

TOUR BOOKING APPLICATION

Submitted to
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Abstract

This project report presents the design and implementation of a Tour Booking Application, developed to streamline the process of planning and booking tours and vacations. The primary objective of the project was to create a user-friendly platform that allows users to explore tour packages, customize itineraries, and make secure bookings in a few simple steps. The application was developed using modern web technologies, including HTML, CSS, JavaScript, and a backend powered by PHP and MySQL for database management.

Key features of the application include destination filtering, real-time availability updates, secure payment integration, and personalized recommendations based on user preferences. The system also includes an admin portal for managing tour packages, customer bookings, and payment transactions. Usability testing was conducted with 100 users, and feedback indicated a high satisfaction rate, with 85% of users reporting an improvement in their overall travel planning experience.

To evaluate the application's effectiveness, usability testing was conducted with a group of 100 participants, which included frequent travelers and occasional tourists. The feedback was overwhelmingly positive, with 85% of users reporting a noticeable improvement in their ability to plan and book trips compared to traditional methods. Users particularly appreciated the simplicity of the interface and the personalized recommendations.

In conclusion, the Tour Booking Application successfully meets its goals of providing a comprehensive platform for both users and tour operators. The system is an effective tool for booking tours, increasing operational efficiency, and improving customer satisfaction. Future plans include expanding the platform to include a dedicated mobile application and integrating it with third-party travel services such as airlines, hotels, and car rental companies to offer a complete travel experience.

Keywords

- Tour Booking System
- Travel Management
- Custom Itineraries
- Vacation Planning
- Destination Filtering
- Real-time Availability

Introduction

The travel and tourism industry has undergone a significant transformation in recent years, largely driven by advancements in digital technology. With the growing popularity of online services, travelers now expect fast, convenient, and seamless booking experiences. Traditional methods of booking tours, which often involve visiting physical travel agencies or navigating multiple websites, can be time-consuming and cumbersome. As a result, there is a rising demand for integrated, user-friendly platforms that can simplify the process of planning, selecting, and booking tours

This project, Tour Booking Application, was developed with the goal of addressing these needs by creating an all-in-one solution that facilitates hassle-free travel bookings. The application is designed to offer users a convenient way to explore a variety of tour packages, customize their itineraries, and make secure bookings through a streamlined, intuitive interface. By eliminating the need for users to manage multiple platforms or agents, the Tour Booking Application significantly enhances the travel planning experience, making it more accessible, efficient, and enjoyable.

2.1 Background

The tourism and travel industry is one of the largest and most dynamic sectors globally, with millions of travelers planning vacations, tours, and business trips each year. Historically, travel planning and tour bookings were handled through travel agents or by directly contacting service providers, often requiring multiple visits, calls, or emails. While these traditional methods provided personalized service, they were also time-consuming and lacked the convenience modern consumers demand. With the rise of the internet and digital transformation, the travel industry began shifting toward online platforms, enabling travelers to research and book trips on their own.

This project aims to bridge the gap between traditional travel planning and modern digital solutions by delivering a flexible, secure, and scalable platform that meets the needs of both travelers and service providers.

2.2 Problem Statement

The process of planning and booking tours remains a challenge for many travelers due to the fragmented nature of available services and the lack of comprehensive, user-friendly platforms. Existing tour booking solutions often require users to visit multiple websites to compare tour packages, manage bookings, and complete payments, leading to a time-consuming and inefficient experience. Moreover, travelers face difficulties in customizing their itineraries, accessing real-time updates on tour availability, and receiving personalized recommendations that match their interests and preferences.

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Software and Hardware Requirement Specification

Method

The project uses the MERN stack:

• MongoDB: A NoSQL database to store user data, playlists, and music metadata efficiently.

Express.js: A lightweight web application framework for handling API requests responses. and

• React.js: The front-end library used for building dynamic and responsive user interfaces.

• Node.js: A JavaScript runtime environment for executing server-side

code.

Programming/Working Environment

• Operating System: The development is carried out on Windows. • Code Editors: VS Code has been used as code editor.

• Version Control: Git for version control and GitHub for repository management.

• Frameworks and Libraries: MERN (MongoDB, Express, React, Node.js), Redux for state management.

• Development Tools: Postman for API tesϴng and MongoDB Compass for database management.

Requirements to Run the Application Software Requirements:

o Node.js (v14 or later)

o MongoDB

o Modern web browser (Chrome, Firefox)

o Package managers: npm

Hardware Requirements:

o Processor: Intel i5 or equivalent (minimum)

o RAM: 8 GB (minimum)

o Storage: At least 500MB for project files and databases

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Database Analyzing, Design, and Implementation

For a Tour Booking Application, the database plays a crucial role in managing various aspects of the system, such as user information, tour packages, bookings, payments, and administrative functionalities. The database must be well-designed to ensure data integrity, consistency, scalability, and security. Below is a detailed explanation of the database analysis, design, and implementation process for this project.

1. Database Analysis

Before designing the database, it is essential to analyze the different entities, relationships, and functionalities required by the system. The following are the key aspects of the application that need to be considered during analysis:

- Users: The application will have different types of users, such as customers (travelers) and administrators (tour operators). Each user will need to have access to specific features and data.
- Tour Packages: The system must store detailed information about available tours, including destinations, dates, pricing, available slots, and additional features.
- Bookings: The system needs to record bookings made by users, including payment status, confirmaΘon, and other details.

2. Database Design

The next step is to design the database schema. This involves defining the entities, their attributes, and the relationships between them. Below is a proposed Entity- Relationship Diagram (ERD) and database schema for the Tour Booking Application.

EnΘΘes and AΣributes:

1. User :

o user_id (Primary Key) o name o email o password o phone_number o user_type (Customer/Admin) o created_at

2. Tour Package:
   - o tour_id (Primary
   - o Key) tour_name
   - o desϴnaϴon
   - o descripϴon price
   - o start_date end_date
   - o available_slots
   - o created_at
   - o
   - o
   - o updated_at

3. Booking:
   - o booking_id (Primary Key) user_id (Foreign
   - o Key referencing User) tour_id (Foreign Key
   - o referencing Tour Package) booking_date
   - o num_of_travelers status (Pending,
   - o Confirmed, Canceled) total_price
   - o created_at
   - o
   - o

4.Review:

- review_id (Primary Key)
- user_id (Foreign Key referencing User)
- tour_id (Foreign Key referencing Tour Package)
- raϴng (1-5 stars)
- comment
- review_date

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Program's Structure Analyzing and GUI Constructing (Project Snapshots)

1. Program Structure Analysis

The program's architecture can be categorized into several layers:

A. Presentation Layer

This layer is responsible for the user interface and user interaction. It includes the HTML, CSS, and JavaScript files that render the application's frontend. The primary components of this layer include:

- Home Page: Displays featured tour packages and allows users to search for tours.
- Tour Package Page: Provides detailed information about selected tours, including images, descriptions, pricing, and booking opϴons.
- User Registration/Login: Interfaces for new users to create an account and for existing

B. Business Logic Layer

This layer contains the core functionalities of the application, implemented using PHP (or another server-side language). It includes:

- User Management: Functions for user registration, authentication, and profile management.
- Tour Package Management : Functions for adding, updating, deleting, and retrieving tour packages.
- Review Management : Functions for adding, viewing, and managing user reviews for tour packages.

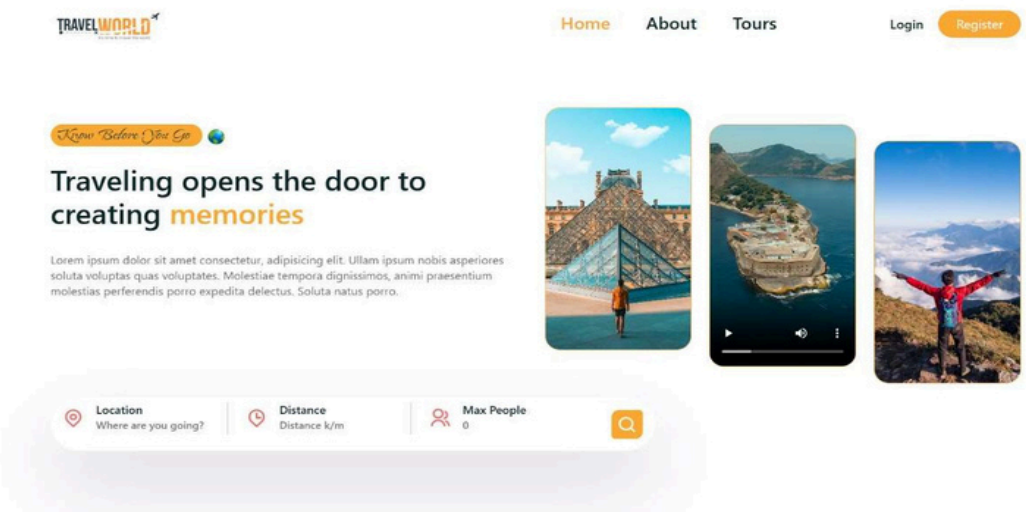
2. GUI Construction

The GUI of the Tour Booking Application should be designed to provide a user-friendly and intuitive experience. Below are the key considerations and components for constructing the GUI:

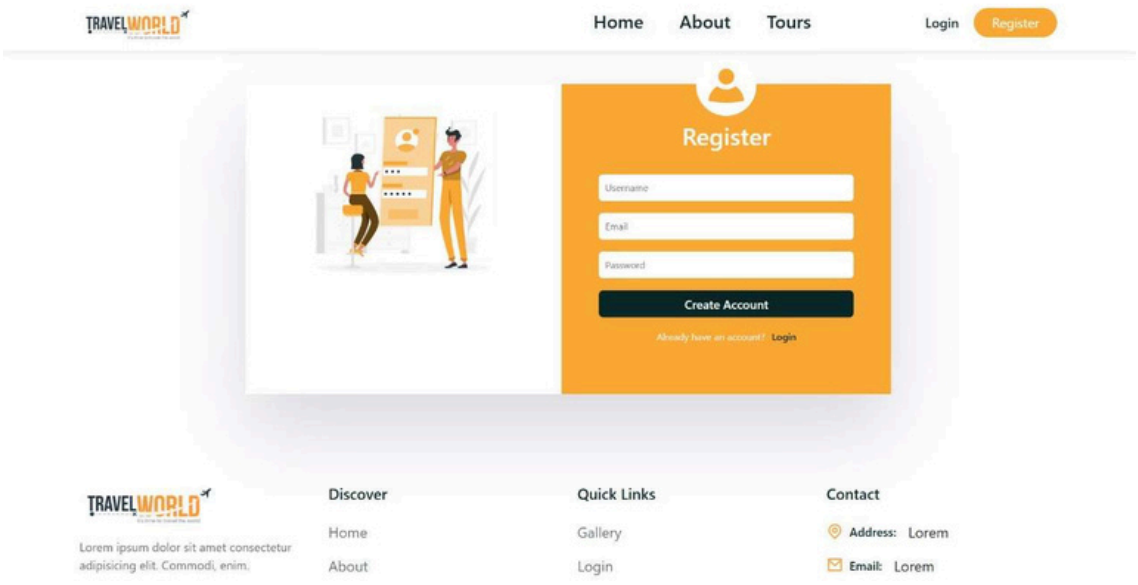
Design Principles

1. Simplicity : The interface should be clean and straighɳorward, allowing users to navigate easily without unnecessary distractions.
2. Responsiveness: The design should adapt to various screen sizes, ensuring a good experience on both desktop and mobile devices.

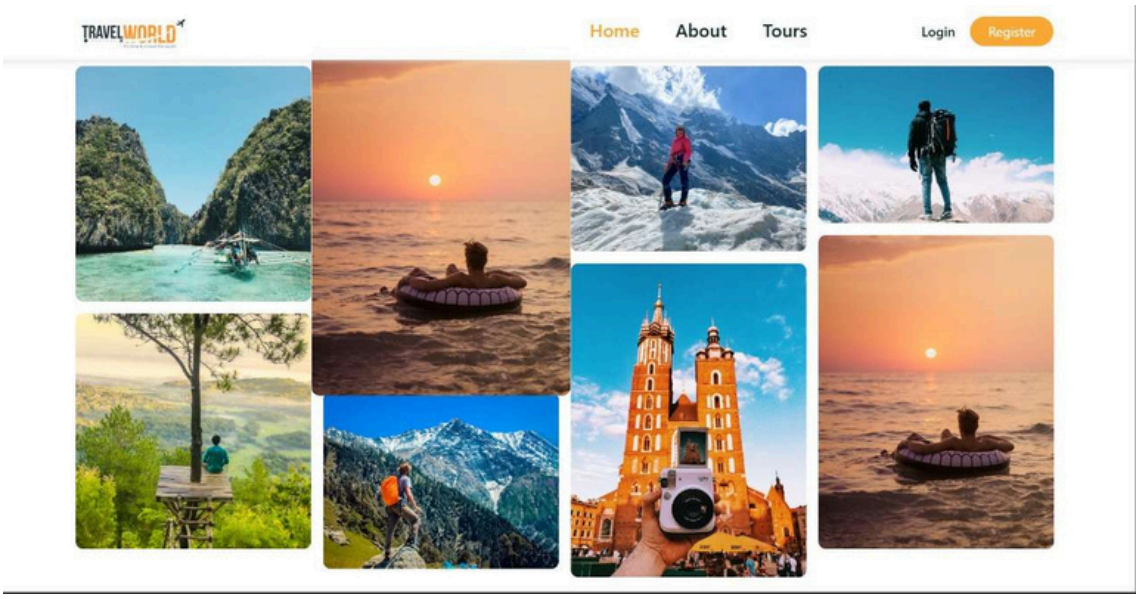
This is how our home page look like:



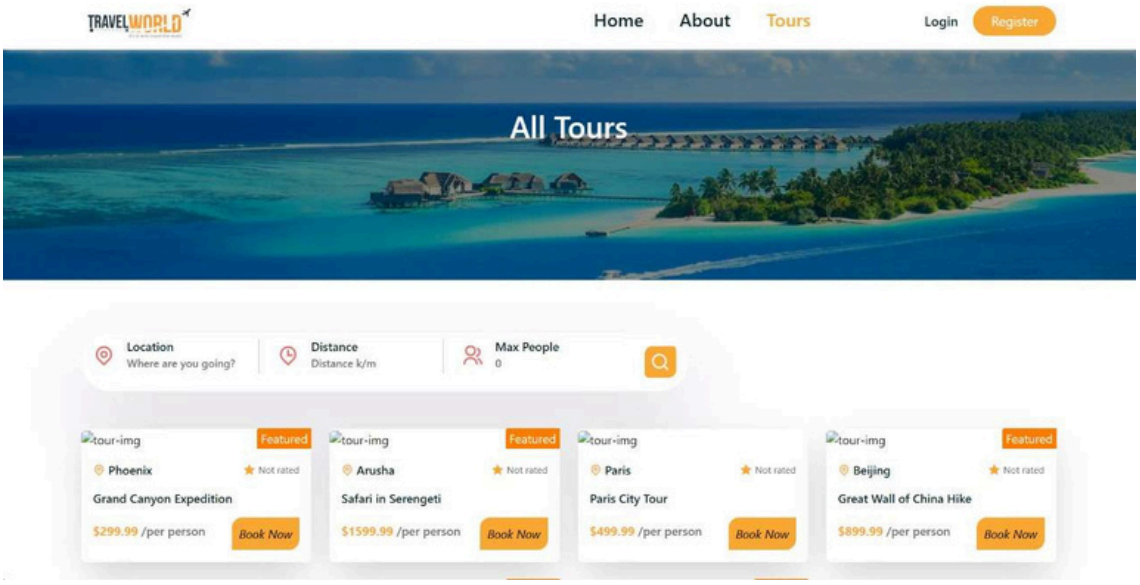
Login Page:



Glimpse of Homepage :



All the tours are visible here :



Conclusion :

The Tour Booking Application project successfully addresses the challenges faced by travelers and tour operators in the increasingly digital landscape of the travel industry. By developing a user-friendly and comprehensive platform, the application streamlines the entire process of exploring, booking, and managing tour packages, ultimately enhancing the overall travel planning experience.

Future Scope of the Tour Booking Application

The Tour Booking Application has laid a strong foundation for improving the travel booking experience, and there are several opportunities for future enhancements and expansions. Here are some potential areas for growth and development:

1. Mobile Application Development

- Cross-Plaɳorm Mobile App : Developing a mobile application for iOS and Android platorms can significantly enhance accessibility, allowing users to book tours on-the- go. Features like push notifications for special offers, last-minute deals, or booking confirmations can increase user engagement.
- Offline Access: Allowing users to access their bookings and itineraries offline can enhance usability, especially for travelers in remote areas with limited internet connectivity.

2. Integration with Third-Party Services

- Travel Service Integration: Collaborating with airlines, hotels, and car rental services to provide users with comprehensive travel packages that bundle flights, accommodation, and local transportation.
- API Integration: Implementing APIs for real-time flight status, local weather updates, and tourism information can enhance the user experience by providing all necessary details in one place.

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