

Online Resort Booking System

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<https://doi.org/10.55041/ijstmt.v2i3.146>

Cite this Article: AR, A. (2026). Online Resort Booking System. International Journal of Science, Strategic Management and Technology, 02(03).
<https://doi.org/10.55041/ijstmt.v2i3.146>

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Abstract

The rapid growth of online travel services has changed how people plan and book vacations. Traditional resort booking often requires phone calls or in-person visits, which can take a lot of time and be inefficient. This paper presents a smart web-based Online Resort Booking System that lets users search, compare, and book resorts through an interactive digital platform.

The system offers features like resort search and filtering, real-time booking, OTP verification, automated receipt generation, and an admin dashboard to monitor bookings and revenue. The platform also includes an AI assistant to help users during the booking process. By using modern web technologies such as HTML, CSS, JavaScript, and browser-based storage, the system provides an efficient and user-friendly booking experience.

This proposed system simplifies the booking process, boosts customer satisfaction, and helps administrators manage resort reservations more effectively.

Keywords:

Online Booking System, Resort Reservation, Web Application, Travel Technology, Smart Tourism, Admin Dashboard, Booking Management

1. Introduction

The tourism and hospitality industry has grown quickly in recent years because of the rising use of the internet and digital technologies. Today's travellers prefer simple and fast ways to plan their trips, book accommodations,

and manage reservations online. Because of this, online booking systems have become a vital part of modern tourism services. These platforms let users explore different travel options, compare prices, and make reservations without needing to visit places or make phone calls.

Traditional resort booking methods usually require contacting travel agencies or resort management directly. These manual processes can be time-consuming, inefficient, and prone to mistakes. Customers may run into problems like limited information about resort availability, delayed confirmations, and unclear pricing. Often, travelers must rely on multiple sources to gather information about resorts, which complicates the booking process.

To tackle these issues, web-based resort booking systems have been created to offer centralized platforms. Users can easily browse available resorts, check details, and make bookings in real time. These systems improve the travel planning experience by providing features such as search filters, price comparisons, and instant booking confirmations. By using modern web technologies, these platforms ensure quicker and more reliable booking services.

The Online Resort Booking System proposed in this project aims to make the resort reservation process easier through a user-friendly web interface. The system allows users to search for resorts based on location, price range, guest capacity, and ratings. This helps customers quickly find the best accommodation that fits their preferences

and budget. The platform also offers detailed information about resorts, including images, pricing, and ratings, to help users make informed choices.

Another key feature of the system is secure booking verification using One-Time Password (OTP) authentication. This guarantees that bookings are confirmed only by authorized users, which helps prevent fraudulent reservations. Once the booking is complete, the system automatically generates a digital receipt containing all booking details such as resort name, check-in and check-out dates, and total payment amount. This improves transparency and helps users keep track of their reservations.

2.Literature Review

The growth of online reservation systems has become a major focus in recent years because of the rapid expansion of the tourism and hospitality industry. Researchers and developers have looked into different digital solutions to make booking accommodations, flights, and travel packages easier. Online booking platforms let customers see available options, compare prices, and confirm reservations without needing to interact face-to-face with service providers.

In the past, hotel and resort reservation systems were mostly manual or semi-digital. Bookings were often logged using spreadsheets or simple database systems. These methods led to problems like double bookings, delayed confirmations, and challenges in managing customer information. To address these issues, web-based booking systems were created to automate the reservation process and increase efficiency.

Many studies have examined how to design web-based travel booking platforms that combine search, reservation, and payment features into one system. These platforms let users browse available resorts, check room availability, and make bookings online. They offer key benefits such as quicker booking processes, more accurate information, and higher customer satisfaction.

Recent research has also looked at using smart technologies in travel reservation systems. Features like filtering options, recommendation systems, and automated customer support have been added to improve the user experience. For instance, search filters based on location, price range, ratings, and guest capacity help

users quickly find suitable resorts that match their preferences.

3.Problem Statement

Planning travel and booking resorts has become common due to the rise of tourism and online services. However, many resorts and travel providers still use traditional booking methods like phone calls, manual record keeping, or simple spreadsheets. These outdated methods often make it hard for customers to get accurate and current information about resort availability, pricing, and facilities. As a result, travellers may experience delays in booking confirmation and may struggle to find the best resort for their needs.

Another significant issue is the lack of a centralized platform where users can easily search and compare different resorts based on location, price, guest capacity, and ratings. Without an efficient online system, customers have to visit several websites or reach out to various resorts separately, which makes the booking process time-consuming and inconvenient. In many instances, the lack of real-time booking management can lead to problems like double bookings, incorrect availability information, and a poor customer experience.

From a management perspective, handling resort bookings manually can be challenging and inefficient. Resort administrators often find it hard to keep track of customer reservations, manage booking records, and monitor revenue effectively. Without an integrated management system, errors in booking data can occur, making it tough to generate reports related to reservations and payments.

4. Objectives

The goals of this project are to create a smart and efficient Online Resort Booking System that makes it easier to find, choose, and book resorts online. The system is meant to make booking travel easier by combining resort search, booking management, automated confirmation, and administrative monitoring into one system.

The proposed platform aims to make travel easier for customers while also helping administrators keep track of bookings, customer information, and revenue data in an efficient way.

4.1 Online Resort Search and Filtering

The main goal of this project is to make a system that is easy to use and lets people easily search for and learn about resorts. The system lets you search and filter by things like location, price range, guest capacity, and resort ratings.

These filtering options help users quickly find resorts that fit their needs and budget. This makes the whole booking process better and helps travellers choose the right place to stay.

4.2 Resort Information Visualization

Another important goal is to make resort information easy to read and interactive. The system shows information about resorts, like pictures, location, prices, and ratings, in a neat way.

This picture makes it easy for people to compare different resorts and learn about their features before they book. The goal is to make sure that users can quickly find all the information they need without having to go to more than one website.

4.3 Smart Booking Management System

Additionally, the project intends to create an effective booking management system that enables users to make direct resort reservations via the platform. Booking information, including customer name, check-in and check-out dates, can be entered by users. After the verification process is finished, the system automatically determines the total cost based on the number of nights and confirms the reservation. This automation helps reduce manual errors and improves the efficiency of the reservation process.

4.4 Secure Booking Verification

Ensuring that the booking process is safe, dependable, and validated prior to reservation confirmation is one of the key goals of the Online Resort Booking System. Reservations may be made in many conventional booking systems without the necessary verification, which could result in inaccurate reservations, fraudulent

reservations, or system abuse. The suggested system includes a secure verification mechanism that verifies the user's identity prior to finishing the booking process in

order to address these problems. During the booking phase, the system verifies the user using a One-Time Password (OTP). The system creates a temporary OTP code when a user chooses a resort and inputs the necessary booking information, including customer name, check-in date, and check-out date.

4.5 Administrative Monitoring and Management

Providing an effective administrative monitoring and management system that enables administrators to supervise and control all booking activities within the system is a key goal of the Online Resort Booking System. Manual booking record management in conventional reservation systems can be difficult and time-consuming. Resort managers frequently struggle with tracking reservations, keeping track of customer information, and figuring out total revenue. As a result, the suggested system has a centralized administrative dashboard that makes managing booking operations easier.

The administrative dashboard provides a clear overview of all booking activities performed by users on the platform. Through this interface, administrators can view detailed information about each reservation, including the customer name, resort selected, booking dates, and the total payment amount.

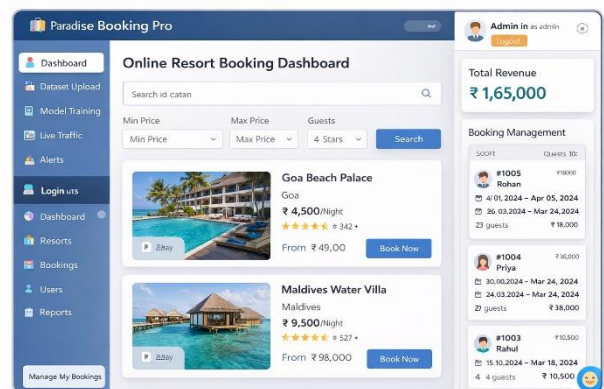


Fig 1: Online Resort Booking Dashboard and Booking Management System

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5. Methodology

The Online Resort Booking System's methodology is centred on developing an organized and effective platform that makes it simple for users to search, view, and reserve resorts via an online interface. To provide a

seamless and dependable booking experience, the system is built by integrating several components, including user registration, resort searching, booking management, and administrative control.

Customers can register or log in to the system via the web interface, which initiates the process. Users can search for resorts using a variety of criteria, including location, price range, available rooms, and amenities, after authenticating.

5.1 Data Collection

Essential information about users, resorts, and booking transactions is gathered as part of the Online Resort Booking System's data collection process. Through a variety of input forms, including user registration, resort listing forms, and booking requests made via the web interface, this data is gathered. The system uses the gathered data to process reservations, manage resort availability, and keep correct booking records.

Attribute Name	Description
user_id	Unique identification number assigned to each registered user
resort_name	Name of the resort selected by the customer
location	Location where the resort is situated
check_in_date	Date when the customer checks into the resort
check_out_date	Date when the customer checks out of the resort
guests	Number of guests included in the booking

Table.1 Dataset Description

5.2 Data Processing and Preprocessing

Essential information about users, resorts, and booking transactions is gathered as part of the Online Resort Booking System's data collection process. Through a variety of input forms, including user registration, resort listing forms, and booking requests made via the web interface, this data is gathered. The system uses the gathered data to process reservations, manage resort availability, and keep correct booking records.

In this stage of data preprocessing, the system validates all the data that has been entered to ensure accuracy. Any duplicate booking entries are removed from the data to prevent making multiple reservations for a single booking request. In addition, missing data is checked and corrected if necessary. The system also validates that the check-in date is valid and that the check-out date is after the check-in date.

5.3 Online Booking Management Framework

After data collection and processing, the Online Resort Booking System has developed an efficient framework that can manage resort search, resort reservations, and resort booking confirmation. The primary aim behind this framework is to offer users an easy and efficient way to search and book resorts online.

The Online Resort Booking System first enables users to search for available resorts by entering information like resort location, check-in date, check-out date, and number of guests. According to these inputs, the system fetches resort information from the database and displays it on the screen. Resort search results include information like resort name, pricing, rooms available, facilities, and images so that customers can compare and select their desired resort.

6. Results and Discussion System Performance Evaluation

The Online Resort Booking System was evaluated based on its efficiency, usability, and accuracy in handling booking requests. The Online Resort Booking System was able to perform and operate efficiently, and it was able to perform all the requested tasks without any errors. It was able to provide users with accurate information as requested. The search, booking, and management of the system were integrated, and it was able to operate efficiently.

Improved Booking Efficiency

The deployment of the online platform was instrumental in improving the efficiency of the resort reservation process. This was in comparison with traditional manual booking methods. Users were able to search and compare prices, and even book within a short period. This reduced the possibility of human error.

Real-Time Booking Management

The system offers real-time management of bookings by immediately updating the availability of rooms after a customer has successfully completed a booking. When a customer completes a booking, the system will automatically record it in the database while updating the availability of the resort. This will prevent customers from making duplicate bookings while ensuring that customers are provided with correct information concerning availability.

Effectiveness of the Admin Dashboard

The Admin Dashboard is an important feature in managing the whole system. From the Admin Dashboard, administrators are able to monitor all booking activities, manage the resorts, and edit the information related to the resorts. In addition, the Admin Dashboard allows administrators to have a clear view of recent bookings, customer information, and other activities. This representation of booking information enables administrators to easily understand the status of the system.

User Experience and Accessibility

The system has been developed with a user-friendly interface that enables customers to navigate through different sections of the system, such as resort search, booking forms, and user profiles. The customers can search for resorts according to their needs by applying filters like location, price range, and facilities. The user-friendly interface has been developed to enhance the user experience for customers.

System Reliability and Practical Applicability

The results show that the Online Resort Booking System is reliable and feasible for practical application. The system has successfully integrated resort search, resort booking management, and resort monitoring into a single system. By providing accurate resort booking information, secure data storage, and efficient management tools, the system assists users and resort administrators in efficient management. In conclusion, the proposed system has been successfully implemented to offer a convenient and reliable solution for modern online resort booking services.

7. Conclusion

The Online Resort Booking System is a modern solution for managing resort bookings through an integrated online system. The system is comprised of various modules such as user registration, resort search, resort booking management, and administrative monitoring. These modules are integrated to form a single environment for resort bookings. The system allows users to search for a resort online and book a resort through the online system. This simplifies the resort booking process and is user-friendly for users to access resort information online.

The system is able to collect and process resort booking information in a structured manner. This allows users to manage resort bookings accurately. The automated resort booking system is able to update resort room availability in real time and store resort reservation information in the database. This minimizes any chances of duplicate resort bookings and allows users to obtain accurate information regarding available resort rooms.

The inclusion of an Admin Dashboard in the system allows administrators to manage resort bookings and customer reservations effectively. The visual representation of resort bookings and system activities allows administrators to understand system activities and manage resort bookings efficiently.

8. Future Scope

The Online Resort Booking System can be further improved by incorporating advanced technology and features to increase its efficiency and user experience. In the future, intelligent recommendation systems can be incorporated to help users select a resort based on their past search history and ratings. Such systems can help users save time searching for relevant information about a resort and increase customer satisfaction.

Another feature to be incorporated in the Online Resort Booking System is secure online payment systems. By providing various online payment systems such as credit cards, debit cards, net banking, and online wallets, users can complete their bookings through online transactions. This feature will increase customer convenience and efficiency in completing online transactions.

The Online Resort Booking System can be further improved by incorporating advanced technology features to increase its efficiency and user experience. In the

future, the system can be improved by integrating cloud-based technology. By deploying the system on a cloud platform, its efficiency and user experience can be increased. Cloud-based systems are more scalable and efficient in handling a large number of users simultaneously. Additionally, such systems are more accessible from remote locations.

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