

A Modern Tour and Travel Web System for user Experience and Digital Growth

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ABSTRACT:

In recent years, digital technologies have advanced from paper-based methods to provide businesses with opportunities to deliver services in an online environment digital technology allows smaller to establish a digital presence this project will assist small/medium sized travel companies transition to an online world by creating a web based application that provides the body of travel companies to offer their users improved access, improving user experience and improving opportunity for increased growth through the improved delivery of booking process using digital method.

The application provides a single point of contact for users to register, search for travel packages and create bookings; it will use HTML, CSS and JavaScript for its front end user interface and be supported by its use of Firebase to provide security, authentication and database services; the application will have inbuilt EmailJS functionality to send automated emails to users when they complete a booking or request an inquiry and will regulate user data security while providing timely access to booking data.

As an outcome of this project, businesses will become more efficient in serving their customers' needs and providing quality service with reduced reliance on manual operations. The convenience provided will enhance the travel services experience of users, thereby increasing their satisfaction. Future enhancements to the application, such as an online payment feature and enhanced admin functions, will be implemented in line with its scalability. Therefore, this project offers a solution to both ease the digital transformation of travel-based companies and enable them to grow as required in the future.

Keywords: Cloud Database, Email Automation, Scalable Systems, Digital Transformation, User Experience, Digital Travel Web Application, Online Booking System.

1.Introduction:

The introduction of the internet into business has completely changed how customers are served. Customers now expect to be able to use the convenience and speed of the internet to find and purchase goods and services, with the tourism and travel industry being no exception; there has been rapid growth in the number of online options available to customers in order to make reservations and purchase travel products from their homes. Unfortunately, there are many small travel agencies that are still using manual systems due to lack of resources and/or technical know-how to create a digital solution. The objective of this project is to create a web-based travel solution that will allow small (and mid-sized) travel agencies to convert to digital operations using a low-cost solution that is scalable. The solution will allow customers to view the different travel packages, make reservations and communicate with the travel suppliers that provide the packages to them. This will allow customers to avoid needing to go to the travel agency to make their reservations. Additionally, the agency

will have an efficient way to manage customer inquiries, purchasing activity, and the reservation's details (all integrated into one location).

The effort that the design team has put into the application has been to create a user-friendly experience by providing a simple-to-use interface so that everyone who uses an application will be able to quickly and easily navigate through all aspects of the application. Additionally, this application also provides an opportunity for an increase in the number of users who will be able to access this software.

Furthermore, this application design also allows for additional features that will be available in the future. For example, users will be able to pay their bills online and will have access to improved management tools.

With the implementation of this project, travel agencies with the ability to combine new technologies with old traditional travel services will enable them and their clients to better serve their customers.

2. Objectives:

The project's purpose has outlined a primary objective and that is to develop an online travel application that supports all types of travel so that small and medium-sized travel companies may enter into the digital world.

The specific objectives include

- Develop a user-friendly site allowing customers to research and book their own travel packages
- Provide a more efficient means of tracking customer information and bookings for travel companies
- Create an asset that improves the communication between the customer and travel company by providing a means of automated e-mail messaging.
- Reduce the number of manual processes and increase the operational efficiency of both the customer and travel company.
- Build a system that is capable of growing and adapting to accommodate new features and improvements through the years.

3. Literature Review:

The increasing number of studies indicating that web-based applications benefit both business performance and enhance the overall customer experience has contributed to greater adoption of these types of applications. In particular, having a web application that can scale will allow a business to support additional customers while maintaining the same level of service.

Currently, there are many travel management systems available on the market; however, most of these systems are designed to be overly complicated and/or very expensive to implement. In addition, they typically require a high degree of technical expertise which makes them impractical for a relatively high percentage of small-business owners who may benefit from a travel management solution. Accordingly, there is a high demand for an easy-to-use and low-cost travel management solution designed specifically for small travel agencies.

The objective of this project is to create an inexpensive travel web application that has a simple user interface and will contain only the minimum features necessary to manage travel reservations and customer interactions. By applying modern web technology and using a minimal design approach, the travel web application will provide an efficient tool for managing travel services.

4. Methodology:

The software development process for this app was developed with a clear structure and process. The four stages of this process are: 1. Requirement Analysis 2. System Design 3. Implementation 4. Testing.

The User Interface for this application was developed using HTML, CSS and Javascript to provide users with permanent visual interaction with the travel application. The use of Firebase provides back-end support to securely store travel

booking data and enable user authentication. The integration of the EmailJS library allows for automatic email notifications to be sent directly to users when booking travel or upon completion of their contact or enquiry form.

The following modules are the main components of the application:

- User Authentication
- Display Travel Packages
- Book Travel
- Contact & Enquiry Form

When a user books travel through the travel application, that booking will automatically be entered into a Firebase database. The user will receive an immediate confirmation email with the details of their travel booking created with the EmailJS integration. Users can send a message to the travel company/owner via the contact/enquiry form within the travel application.

The Application as a whole was designed to be simple to use; dependable; and will allow for infinite growth allowing for future capability of growing beyond and processing many more customers.

5. Results and Discussion:

After completing the development of the system, extensive functional testing was performed on the system to ensure its functionality & performance. Each module on the system could be used correctly by the end users to register, log in & successfully book travel package reservations (travel package). The application also worked properly in various environments and allowed for smooth use of the system by the end users and helped to support them in achieving their desired results.

The booking module accurately & successfully captured user's data and stored it in the database, which proved that emails were sent successfully as confirmations of both booked & inquired reservations, therefore confirming that the system's communications worked properly. The end users could access the application's user interface from a variety of devices (e.g., tablets, smart phones) that provided access to the database for a wide range of user types.

Because the system has substantially reduced the amount of manual labour a business owner would typically perform by having to have separate locations for booking information & customer information for each customer, the business owner has significantly increased his time savings and has been able to operate more efficiently on a day-to-day basis.

Customers now have the capability of booking and buying travel and travel-related products much faster than before, thus making it easier to meet customer expectations through a higher level of customer satisfaction and improved overall use of the system.

6. Conclusion:

This project has produced an efficient solution for smaller travel companies to incorporate digital technologies within their business model (a web application that facilitates the management of bookings, customer inquiries, and travel information). A centralized point of access for customers for virtual services provided by the travel company will enable the travel company to increase its efficiency and enhance customer accessibility to their business products/services.

The web application will provide significant support for business growth/expansion by enabling the automation of key functional processes, reducing labor intensive processes, and improving overall productivity, while providing an improvement in the customer service of the travel company.

Long-term enhancements to an online travel application may include integrated payment processing capabilities, improved administrative functionality, and enhanced forms of communication. These enhancements will improve the application/functionality of the web application and will provide additional user experience.

To summarize, the results of this project show that well-designed web applications can facilitate the establishment of a robust digital presence by small travel companies, thus allowing small travel companies to take advantage of the digital marketplace.

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