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Travel Guide Management System-Easy Viaje

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ABSTRACT: The travel guide management system project which is known as Easy Viajeis a platform created to help the people who would like to tour around the places in and around Udupi district of Karnataka State, India. It provides user with the tourist attractions along with the restaurant and hotel stay options.A web-based tool called the Easy Viaje refers to easy journey, here Viaje is a Spanish word which refers to journey. In this projectto protect the privacy of user's data, the system offers a secure login option. Tourists can use the system to look up and reserve hotels in the Udupi District, browse lodging details, and discover the area's top attractions. Additionally, the system offers details about nearby transportation, tourism destinations, and events.Tourists may effectively organize their journey using this technique, which will make getting to Udupi District easy and hassle free.

By offering a user-friendly interface that enables users to filter search results depending on their requirements.The system will be created to make the process of trip planning for tourists simpler and clearer. Additionally, the system will contain a payment gateway that will make it simple andsecure for the user to pay for their trip reservations.Also, the system would notify the user about inexpensive activities and sights at their vacation location, assisting them in planning their schedule while staying within their means. Additionally, it will provide tools for organizing group travel, enabling the user to concurrently reserve travel for a number of people.

The Easy Viajeproject will ultimately offer aextensive platform that meets the special requirements of travelers who wish to travel within their financial limits. It will allow the user to go through all the options that are available and make choices based on their requirements.We also worked onproviding a simple and secure payment procedureto our user.

KEYWORDS: Visual Studio, ReactJS ProgrammingLanguage, Tour guide model, Affordable travel options, Budget-based travel plan

I. INTRODUCTION

Being human, it is important to learn new things not just reading books but also by travelling the world and experiencing the various aspects of world. Irrespective of which, a large number of younger generations finds it difficult to travel due to lack of guidance and budget. Considering this, we make an attempt to give people a prepared tour guide by examining their statistics and personal information.

As the nation's economy has grown, a new way of thinking about life has emerged, and the vacation system has been perfected, more and more individuals are choosing to travel over the holidays. It has a large and promising market. The artificial guide service, which has several flaws, is now the dominant method for providing guides.The major focus of the multimedia material is background knowledge on history and culture. Its purpose is accomplished by the use of visitors or employees.Typically, this system is created for a single picturesque location. The picturesque cost a lot of money. Additionally, it is difficult to use and offers little services. Previous methods cannot handle the present scenario due to growing tourism and changing visitor needs, keeping this in mind we created an android application which is known as Easy Viaje to help people find the most important things to travel at a single place. These important things include the Tourist destinations, Food facilities and Staying facilities.

Easy Viaje provides a user-friendly platform where the users can plan and manage their trip while keeping their spending within the budget by exploring the different options in the required field available where the budget is ranged from low to high. with the help of different budget friendly options that are available. This system will offer details on budget-friendly lodging alternatives, using the Hotel field as well as food facilities by using the Restaurant field. The goal of this project is to develop a system that will provide a simpler and convenient platform for travelers to

organize their trip. With the help of this system, students can find and reserve travel alternatives that are within their price range, guaranteeing that they can afford to do so without sacrificing their vacation experience. Herethe user will be able to browse and compare various travel possibilities using the system's straightforward and user-friendly interface, and they will be able to restrict their search results based on their budget.

We worked on to develop a platform that meets the basic requirement of an individual when they travel. With the help of this we aim to provide a simpler and affordable travel options.

This application's key feature is its ability to offer comprehensive trip planning based in the location Udupi.

1. Coverage of most of the tourist attractions in and around Udupi district. Enhancing the tourism and helping the economy of the state.

2. By providing most of the hotels and restaurant options in and around the Udupi district, enhancing the food culture and introducing various foods of coastal Karnataka. We also provide with the restaurants that not only provide coastal foods but foods from different cultures, and styles to make sure the utmost satisfaction of our user's.

II. LITERATURE REVIEW

The paper(Design and implementation of a budget-based management system for student travel guides) by S. A. Qureshi, 2018reviews on the research done on different tour guide applications. This investigation looks at the present status of the literature on the topic, it finds the gaps that need to be filled, and makes suggestion for further studies.

The paper (Development of an online student travel guide based on budget constraints) published in the year 2019 by A. Abiodun et alsuggested a management system for student travelerswho make decisions based on the budget. The suggested method was created to assist students in organizing their journey within their financial means by giving them knowledge of the top lodging, travel, and other expenditure possibilities. The system was created by the study using a software engineering methodology, and a group of students tested it. The outcomes demonstrated that the approach was successful in assisting students in making travel arrangements within their means.

The research paper(Artificial intelligence is used in the creation and implementation of a budget-based student travel guide management system)suggested creating a budget-friendly online travel guide for students. The guide's information on affordable choices for travel, lodging, and other costs was created to assist students in making trip arrangements. The guide was created by the study using a web-based methodology, and a group of students tried it out. The findings indicated that the guide was successful in assisting students in making travel arrangements within their means.

This study also suggested a method for managing student travel guides that makes use of artificial intelligence to assist students in making vacation plans that are within their means. The suggested approach also created to give students tailored recommendations depending on their interests and financial restrictions. The system was created by the study using a software engineering methodology, and a group of students tested it. The outcomes demonstrated that the method was successful in giving students their own ideas and assisting them in budget-friendly vacation planning.

An intelligent decision-support system based on financial restrictions for student travel S. K. Mishra and others, published in the year 2021 is mainly based on financial restrictions, this study suggested an intelligent decision-support system for student travel. The system was created to offer students personalized travel advice based on their tastes and financial limitations. The system was created by the study using a machine learning methodology, and a group of students tested it. The outcomes demonstrated that the method was successful in giving students their own ideas and assisting them in budget-friendly vacation planning.

III. CONCLUSION

According to the examination of the literature, there has been a lot of work done on developing budget-based travel guide management systems. The results show that these systems, which offer tailored recommendations on travel possibilities, might be useful in assisting students in scheduling their vacation within their financial means. However, most studies adopt a software engineering methodology and put more emphasis on system development

than on user experience. Future studies should thus concentrate on the usability and user experience of these tools to make sure they are efficient in assisting students in making travel plans within their means.
A software program called Easy Viajeis made to help tourists organize and arrange their trips. An overview of some of the current studies in the area of travel guide management systems is provided in the literature review that is shown below:

(1)Oyelami Olufunke, AfolayanOlufunmilola, and Fakunle Temitope's "Design and Implementation of a Web-Based Travel Guide System" was published in 2014.

The web-based travel guide system described in this study helps travelersorganize and organize their vacations. The system offers details on lodging possibilities, tourist sites, and transit choices. The results of a poll the authors ran to gauge the system's usability revealed that users thought the system was helpful and simple to use.
(2) Nur AsyuraAfifah, AzrulhizamShapi'i, and Mohd AriffAnuar's "Design and Development of a Mobile-Based Travel Guide Application" was published in 2017.

This research outlines the creation of a mobile travel guide application that informs users about tourist destinations, lodging possibilities, and transit choices. The program also has a function that allows users to plan their tour and share them with others.According to a usability test the writers conducted,the users of this program were happy with its features and interface.

(3) Ting-Ting Chang and Wen-Tsai Sung's "A Mobile-Based Intelligent Tourist Guide System" (2013).
This study introduces a mobile-based intelligent tourist guide system that leverages AI methods to offer users-specific recommendations. A knowledge base is used by the system to hold data about tourist attractions, and a recommendation engine is used to make suggestions for activities and locations depending on the user's interests. The authors conducted a user study and found that the system was effective in providing personalized recommendations.

(4) "An Intelligent Travel Guide System Based on a Hybrid Recommendation Algorithm" by Xuan Li and Xiangyang Li (2018).

This study introduces an intelligent travel guide system that uses a hybrid recommendation technique to generate recommendations based on the user's preferences and past behavior.

(5) Xiaohui Yuan, Zhiwen Yu, and Gang Pan's "A Context-Aware Personalized Travel Guide System" (2013).
This study introduces a context-aware personalized travel guide system that makes suggestions to users depending on their context, including location, time, and weather, by applying a rule-based reasoning technique. According to the authors' user research. The system provedsuccessful in makingpersonalized recommendations depending on the user's situation.

Overall, these studies demonstrate the potential of travel guide management systems to assist travelers with trip planning and management. These systems can provide users with personalized recommendations and information about tourist attractions, accommodations, and transportation options. Here in the field could explore the use of emerging technologies such as augmented reality and natural language processing to enhance the user experience of travel guide management systems.

Key Features and Functionalities:
This acts as a vital tool for travelers, as the travel guide management system contains severalefficient features and capabilities. The key characteristics include:

Booking of accommodations: The system enables users to look for and reserve lodging options for hotels, resorts, and homestays.

Local Attractions: The system helps users organize their activities by providing information about nearby attractions including museums, monuments, and landmarks.
Navigation: To assist users in finding their way about the location, the system offers maps and instructions.
User evaluations: The system enables users to post evaluations and ratings of their encounters, giving other users insightful input.

Current Research and Projects:

Travel guide management systems have been the subject of several research studies and initiatives. The "Design and Development of a Mobile Travel Guide Application for Android" by E. Sabri et al. is one of the noteworthy ones. This project created a mobile travel guide app for Android that lists the best restaurants, hotels, and activities in the area.

S. Mir et al.'s "A Location-Based Android Travel Guide Application" This project created a location-based travel guide application that lists nearby sights to see, lodging options, and dining establishments."Development of a Travel Guide Application forAndroid Platform" by T. Ghodke et al. This project created a trip guide application that offers details on nearby sights to see, lodging options, and dining establishments. Users may also make and share their itinerary using this tool.

H. Zhu et al.'s "A Context-Aware Mobile Tourist Guide Application for Android" An application for mobile tourist guides that is context-aware and offers personalized suggestions based on the user's interests and preferences was proposed in this study.

Conclusion:In conclusion, a travel guide management system is a crucial tool for tourists, including helpful data about nearby landmarks, lodging options, and transit options. This issue has been the subject of several initiatives and research investigations, leading to the creation of several practical Android applications. The development of context-aware travel guide management systems that offer individualized suggestions based on the user's interests and preferences might be the subject of future study.

IV. METHODOLOGY

The first step is to login to the application by providing personal details.

Pre-processing   mainly   consists   of   the   following   steps:
1. User login
2.Choose destination
3.SelectRestaurant
4.SelectResidency
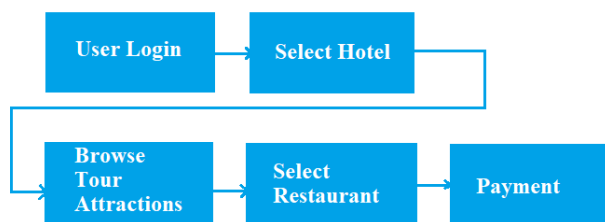5.Choose payment option

Figure.1:Methodology

Define the project's objectives and goals, as well as the features and functions of the Easy Viajetour guide management system, considering the budgetary constraints. This would entail making a user-friendly interface for people to organize their trips, enabling them to look up and contrast inexpensive travel alternatives, and offering suggestions for inexpensive residence and other activities.

Obtain user opinions: To gain information on potential users' preferences and pain issues in the planning and management of their trip budget, conduct surveys or focus groups with them (such as students or travel aficionados). You can better understand consumer demands by using this input to create systems that cater to their needs.

Design and plan the architecture: Based on the specifications and user feedback, create a high-level architecture and design for the system. This entails choosing the proper frameworks, technologies, and tools for the system's construction as well as creating an intuitive and user-friendly user interface.

Develop the system: Start working on the system after the architecture and design are complete. This include creating the system's front-end and back-end components, including external APIs (such those for hotel booking services), and testing the system to make sure it complies with the specifications and performs as planned.

Deploy and test the system: After the system has been created, it must be tested and deployed in a real-world setting. This entails setting up the necessary hosting infrastructure, optimizing the system's settings, and carefully testing the system to guarantee its stability and security.

Collect feedback and iterate: After the system is deployed, collect feedback from users and monitor system performance. Use this feedback to identify areas for improvement and iterate on the system to make it better. This could include adding new features, improving performance, or addressing any bugs or issues that arise.

Maintain and support the system: Once the system is live, it needs to be maintained and supported. This includes monitoring system performance, providing technical support to users, and addressing any issues that arise.

Overall, developing the Easy Viaje a travel guide management systemrequires careful planning, design, development, and testing. You may create a system that satisfies user demands, is scalable and maintainable, and offers the best user experience for people wishing to travel on a budget by adhering to a systematic process like the one described above.

3.1 Methodology-

Model Development:

1) User Login: When a user logs into the system, the NodeJS server receives the login data. The server checks the user's credentials against the database and replies to the React frontend with the results. The user gets brought to the main dashboard if the credentials are valid.

2) Locating Locations in the Udupi District: Users may enter their search criteria into the React frontend to locate locations in the Udupi District. The NodeJS server then receives a request from the frontend and fetches the necessary data from the database. The user sees the results when the server feeds them back to the React frontend.

3)Hotel Search: A user may enter their search parameters into the React frontend to look for hotels in the Udupi District. The NodeJS server then receives a request from the frontend and fetches the necessary hotel data from the database. The user sees the results when the server feeds them back to the React frontend. The user may then select a hotel and utilize the system to make a reservation.

4) Restaurant Search: A user may enter their search parameters into the React frontend to look for a restaurant in the Udupi District. The NodeJS server then receives a request from the frontend and fetches the necessary restaurant data from the database. The user sees the results when the server feeds them back to the React frontend. The user may then pick a restaurant and utilize the system to make a reservation.

In this approach, NodeJS and React collaborate to give the Easy Viaje'susers a smooth and simple user interface.

Page management: From here, you may manage the pages of the application.

User Interface: The app's user interface would be created using React Native. The user interface would be made up of displays that provide details about the trip, including the itinerary, the destinations, the lodging options, and the dining options. Users would be able to share images, write comments, and make reservations via the user interface.

Backend API: Node.js and Express.js would be used to build the app's backend API. The API would provide you endpoints that the mobile app can use to fetch data from the backend, such as the itinerary, the list of places to visit, and the booking information. The API would also handle user authentication and authorization, ensuring that onlyafter the system has been deployed, gather user input, and iterate while keeping an eye on system performance. Utilize this input to pinpoint areas for development and iterate the system to improve it. This could entail introducing fresh features, enhancing functionality, or fixing any bugs or other problems.

Maintain and support the system: After going live, the system must be supported and maintained. This includes keeping an eye on the functionality of the system, offering users technical help, and resolving any problems that may occur.

Overall, rigorous planning, design, development, and testing are needed to create a budget-based student travel guide management system. authorized users can access certain parts of the app.

Database: The app would use a database to store information about the trip, such as the itinerary, the list of places to visit, the hotels to stay at, and the restaurants to eat at. The database would be accessed through the backend API using a database driver, such as Firebase and Google API's.

Mobile App Logic: The mobile app logic would be written in JavaScript using React Native. It would make requests to the backend API to fetch data, and it would use the user interface to display the data to the user. The app logic would also handle user input, such as when a user books a hotel or adds a comment.

[1]Proposed Methodology Mainly Consists Of:

Requirements Gathering: The first step is to gather requirements from stakeholders and users to determine the features and functionalities of the system. This includes identifying the need for login details, hotels, places to stay, and destinations in Udupi District.

System Design: Following the collection of the requirements, the system design phase is launched. This includes creating the database schema, user interface, and system architecture. In this stage, the Android app, NodeJS server, and database may all be included in a thorough diagram of the system architecture.

Development: The development phase involves implementing the system design using appropriate programming languages, frameworks, and libraries. This includes coding the Android app, NodeJS server, and database. The app allows users to login, search for hotels, view places to stay, and explore destinations. The server provides the necessary APIs for the app to interact with the database.

Testing: The system is then tested to make sure it complies with the specifications and performs as intended. Unit testing, integration testing, and system testing are all types of testing.

Deployment: Once the system passes the testing phase, it is deployed on a server and made available to users. This includes configuring the server and installing necessary software and libraries.

Maintenance: After deployment, the system requires ongoing maintenance to ensure that it continues to function correctly. This includes fixing bugs, updating the software, and adding new features.

V. CONCLUSION

In conclusion, EasyViajeis an Android application designed to simplify the travel planning process for people mainly students who want to travel within their budget constraints. The system provides a user-friendly interface that allows people to search and compare various travel optionsand accommodations that are available at a single place.
The system also offers online payment facilities for hotel bookings. The payment gateway integration ensures a convenient and secure payment process for students.

Moreover, the system provides information on various options which may vary from lower to higher of which the customer can choose the option which suits them, based on their budget.
Overall, Easy Viajeis a project which comes up with the variety of options for restaurants,residenceand the tourist attractions in and around Udupi District atone click, which acts as a valuable tool for students/travelers who are looking to travel in and around Udupi based on the budget. The system simplifies the travel planning process, offers affordable travel options, and provides personalized recommendations, ensuring that tourists can plan their travel with ease and convenience.

•Come up with a model that will be able to provide the staying facilities for the user based on their convenience.
•Come up with a model that will guide the budget friendly Food Spots/Restaurants by giving all variety of options to choose from.
•Come up with a web user interface that would facilitate the end user.

In conclusion, Easy Viaje, a travel guide management system is an Android-based application that is designed to provide a comprehensive guide for travelers who want to explore different parts of Udupi District, Karnataka. The app is intended to be user-friendly, informative, and interactive. It includes features such as details of the places of attractions in and around Udupi, the restaurants that are available in and around Udupi, and it also provides hotel options to stay.

With the help of this app, travelers can easily plan their trips, find the best deals, and make the most of their travel experience.

Overall, our project is an excellent tool for travelers who are passionate about traveling and want to make the most out of their trips. The app is expected to be highly beneficial for students as it offers a comprehensive guide for traveling, making their journey more enjoyable, memorable, and hassle-free.

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