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Smart Travel Guide: A Smart Way

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Abstract: The key objective of this paper is to examine the needs of visitors visiting to India and proposed an Android application solution, which includes some fundamental advice for visitors to tourist areas. In this paper, an online mobile application is created based on the needs of tourists, which can assist them while they are visiting tourist attractions. The paper also provides the various features, development process, and outcome of the App and uses of our android application named "Smart Travel Guide". The proposed app provides many new features along the existing features of state of art apps. This novel Smart App provides the better user-friendly result compared to existing travel guide Apps.

Keywords: Android App, Smart App, Travelers, Travel Guide, Tourists, Visitors

I. INTRODUCTION

Millions of tourists from other nations travel to India because it is a beautiful country with historical sites. There are several reasons why foreigners travel to this nation. The main objective is tourism. In 2011, Lonely Planet ranked the nation as the best value destination. Many reasons for visiting our nation includes official, business, historical and natural wonders, and educational objectives. However, as foreigners living in India, they encounter some difficulties such as difficulty learning the local language, finding transportation and other kinds of information.

Nowadays people have been moved so much into the modern technology that we really want an intelligent living environment along with intelligent objects which contain powerful infrastructure with the most desired features. Thus,android mobile applications have become very popular among the smart phone users. The mobile application and the web server are the two key elements around which the system is built. GPS technology is utilized to transmit location data to the mobile device from the web server through the mobile application. Through the creation of an Android application, created an online solution to address some of the needs of tourists.

Remaining part of this paper is organized as follows: Section II covers the existing work of the domain; proposed system and system architecture are discussed in section III and IV respectively; section V gives the pseudo code of the work; Section VI briefs the Snapshots and Results; Conclusion is at section VII; at the end, reference is placed at section VII.

II. EXISTING WORKS

In 2012 [1], an architecture of mobile tourist guide system for Android Mobile Phones that is able to provide tourism information to the mobile users conveniently is proposed. This system takes advantage of light-weighted mashup technology that can combine more than one data sources to create value-added services, while overcomes the limitations of mobile devices.

An M-Travelling App is developed in 2012 [2], which presents four case studies carried out in four cities for one tourist, using a total of 26 mobile applications. Analyzing the data collected in the case studies is possible to highlight some important features and some problems in these applications[2].

Alexander et. al., in [3], presents category classification of mobile travel applications accessible at the moment for tourists in application stores for most popular mobile operation systems (Android and iOS). The most interesting category is "Travel Guides" that combines "Information Resources" and "Location-Based Services" category. Here, the application "Tourist assistant - TAIS" that is related to "Travel Guides" category and recommends the tourist attractions around. Information about attractions is extracted from different internet sources [3].

A Smart Travel Guide App is presented [4], which seeks to solve that problem by generating feature-rich texts, pictures, videos, and any other guidance-related details requested by the users so they can explore tourist's destinations better.

A tourists app is developed by comparing the features from other existing such apps, kanaka divya et. al., proposed an android tourism app which will include all those functionalities which are best is the studied app. Along with that, they have added some new features in it [5].

As a thorough literature review, in the existing travel guide apps, the information delivery is not very effective. There was no prediction of the ideal locations at cheap costs, unavailable network, not simple to use or user-friendly. Taking into account traveller needs and the popularity of Android devices and apps, we came up with the idea of creating a mobile app for tourists and newcomers in Tourist, one of India's most popular tourist destinations. Android is our platform of choice because it is open source and is created and distributed by Google.

There may be certain improvements to our app's features that could be made to make it more user-friendly, effective, and efficient based on the present constraints of our project. Search Nearby: This feature enables users to look up nearby businesses including hotels, restaurants, and bookshops. Real-time translation services will be used to make conversations in restaurants, transportation, and hotels interactive in real time. GPS Location Tracker: This feature will make the app more effective and organized by automatically tracking the user's location rather than displaying it on the map. More Exact Route Information: The city can provide the user with more precise route information for adjacent locations.

III. PROPOSED SYSTEM

The proposed App includes the three important models for distinct activities, which are as follows.

A. User Module

In user module, user can create an account in application and can access the information about the places or latest update.

B. Admin Module

In admin module, admin can access all the information that accessed by the user and can make changes, update the application anytime for user friendly and can access the feedback of users.

C. Database Module

Database module that contain all the data accessed by the user for registers and feedback etc. database will lead to updating of information in user account.

IV. SYSTEM ARCHITECTURE

Architecture focuses on looking at a system as a combination of many different components, and how they interact with each other to produce the desired result. It involves the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of an android application. Figure 1 depicts the System Architecture, which has mainly three parts to defined.
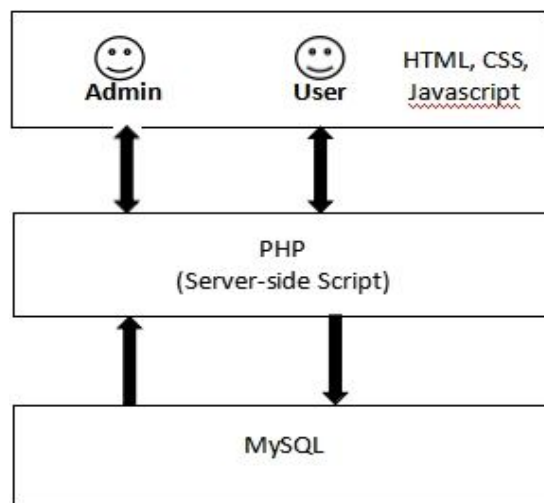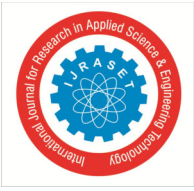

Figure 1. System Architecture

A. Front End Layer

The front end that uses to develop HTML, JAVA script, CSS technologies. The application that helps to make more effective and perfect. Front end has 2 main actors i.e, Admin and User

B. Middle Layer

In our project to interact between the actors and the database is done by the middle layer is used. The PHP is used to interact between the user and the database. So that the data is stored effectively in the database and helps them to easy to fetch and display from the database.

C. Database Layer

The MYSQL database is used to store the data into database. The effective analysis is done to create the database design and to store the data. Every action related from the front end are accessed from the database by the PHP.

V. PSEUDOCODE OF THE WORK

The pseudo code of the proposed work is given as follows

A. Register Page

Form entry (); Establish the connection;

Get username;

       Get Email

       Get Password

If valid

       Then create a session and prompt "registered successfully";

Else

       Display appropriate error message;

End.

B. Login Page

SelectEmail_Id, password from the User where Email_Id=? And Password=?

If Email_Id== NULL or Password=NULL   Display error message

Else

If Email_Id = = Admin

       Show the Admin Page

If Email_Id = = Service provider

       Show the Service Provider Page

If Email_Id = = User

       Show the User Page

If Email_Id = = place

       Show the place Page

C. Upload Guide Information

Get Objectives

       Get Input Image

       Get guide id

       Get about info

Query=Insert into tableExecutequey(query);

  Data inserted Successfully

Message: Admin Has to Add guide details

Else

       Please Check the form

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D. Admin

Select * from User;

        Display list of all registered user based on email id

        View Users

        Delete User;

E. User

User success Login

Select * from places

        Display place info

        View all the Places and images details

        Get direction

        Search nearby place

        View response

Select * from service;

        Display list of all register services

        Search nearby service

        Send request for service

        View response

VI. SNAPSHOTS AND RESULTS

The proposed work has many GUIs for Admin and Users as well. In this section, due to space constraints in the paper, only the Admin Dashboard and User Dashboard has been presented. Figure 2 and Figure 3 shows the Admin and User Dashboard respectively.
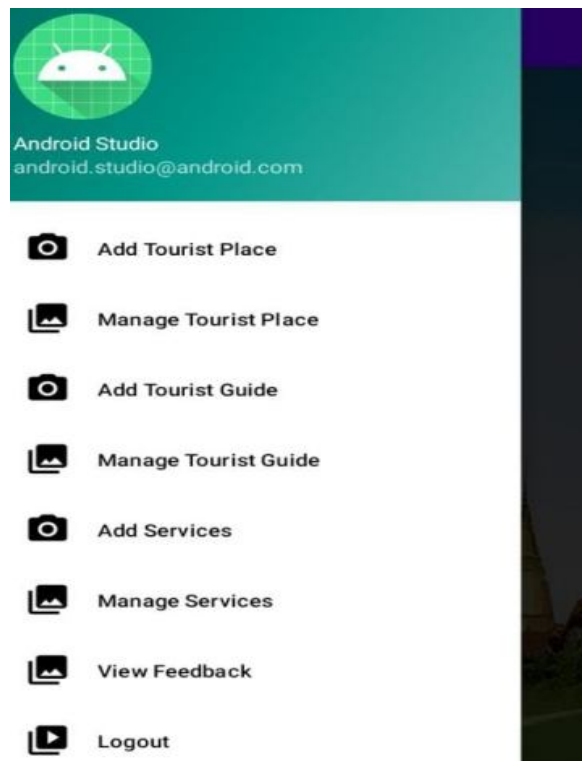

Figure 2. Admin Dashboard

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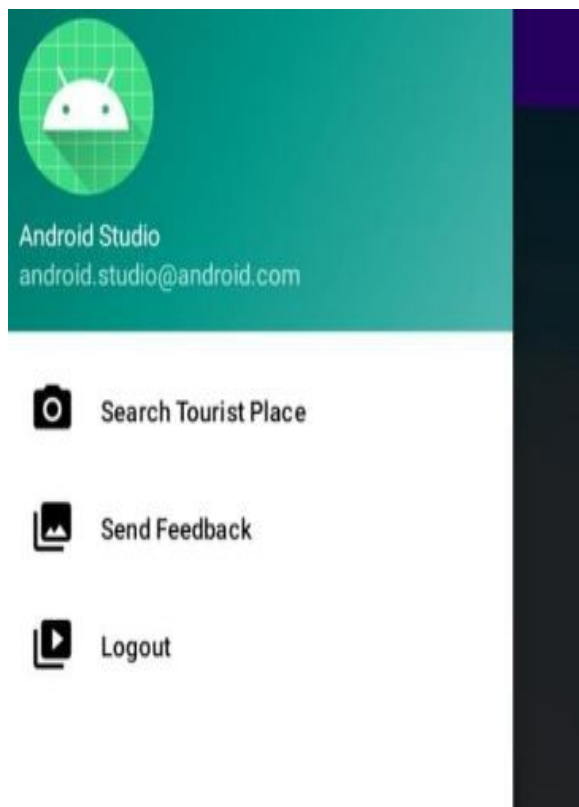*Volume 10 Issue VII July 2022- Available at www.ijraset.com*

Figure 3. User Dashboard

For every research, there needs to be a results and discussion with positive negative remarks. Following tables from Table 1 to 3 explain the various tests carried out on the proposed work.

TABLE I
LOGIN PAGE RESULTS

Test #	Description	Expected Result	Observed Result
1	If the Login Id/password is not entered	Error Message "Enter Valid Login Id /Enter Password" to be displayed	Successful
2	If the login Id/Password or both are incorrect	Error Message "Invalid Login Credentials"	Successful
3	Enter profile information for sign up	Data should store in database	Successful

TABLE II

TEST CASES WITH POSITIVE SCENARIOS

Test #	Positive Scenario	Required Input	Expected Output	Actual Output	Test Result
1	Add place profile information	Enter details	Should display the message place added success-ful message	Displays the post made	Pass
2	View place by user	Should display the details	Should display the details	As Expected	Pass
3	Search Guide Information	Select Guide details button	Should display Guide information details	As expected	Pass
4	View nearby service information	Display service Information	Shows the service details	As expected	Pass
5	Send feedback	Send feedback to admin	Enter details and send the feedback	Feedback sent	Pass
6	View feedback	Admin can view the feedback	View feedback	Display feedback	Pass
7	Admin can view the registered user details	View registered users	View user information	Display user information	Pass
8	Session Expiry	Logout from the site	Session should expire by erasing previous actions of users	Session expires from logged out	Pass

TABLE III

TEST CASES WITH NEGATIVE SCENARIOS

Test #	Negative Scenario	Required Input	Expected Output	Actual Output	Test Result
1	Verify login Page	Enter a Invalid username and password	Should display error message	Display error message	Pass
2	Verify Register Page	Enter existing username	Should not register	Cannot register with existing users	Pass
3	Fill the profile information	Skip some field in profile form	Display validation information	Display error message	Pass
4	Search tourist place	Skip region details	Display validation information	Display validation information	Pass
5	Send Request information by skip input field	Make blank updates	Should Not update	Display no updates	Pass

VII. CONCLUSION

In this paper, an effort has been placed to highlight the existing work, system architecture, proposed work, pseudo code of the work and finally snapshots and results. This Android application includes traveller needs and the current trend toward the use of android devices. The majority of the needs that traveller frequently have can be met by the application and the user-friendliness of the app has been preserved. For Indians, who are new to the city of Karnataka, the app may be useful. This application provides platform for Tourist Guide. This helps tourists to benefited with the features as mentioned in the earlier sections above. There may be certain improvements to this app's features that could be made to make it more user-friendly, effective and efficient based on the present constraints of our project.

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