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Travel Package Recommendation System

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Abstract

In the past few years recommender systems have seen an increasing growth and popularity. Despite progress in this area, there are still lots of places to be explored and visited. We first identify and analyze the existing travel packages present in existing system. Major drawback of existing system is that places which have to be seen in the winter season are being considered as a package in the summer season. If a customer wishes to go to some north or northeastern places in winter, they can't book the package. Our system overcomes this drawback by providing all the places to visit under three categories that is adventure, nature, historic. By this way the customer can choose the type of activity they wish to do and book the places they wish to see.

Keywords: Humanities and Social Science Electronic Thesaurus (HASSET), ICSSR Date Service, Indexing Languages, Thesaurus

1. Introduction

We are seventeen years into the 21st century, the age of smart phones and fast Internet, where time is money. People need methods that consume least amount of time and give effective results. Those who do smart work are appreciated more over others who work hard. People are looking for short cuts to complete their tasks and the smart phones, smart homes, smart cars etc. are aiding them in doing so. One such less time-consuming methods for packaged tours is provided by our travel package recommendation application. This is a convenient and a popular method to make travel bookings faster. It is a highly efficient method as it reduces the time spent on making the bookings. It is a highly useful application which provides convenience for both the users as well as the administrators. This can be realized if there is an application for recommendation of tourist places and making travel bookings. Our application has three different categories in which the user can experience the kind of activity they want such as nature, historic and adventure. Our application applies to all age groups without demarking the differences in their ages so that everyone can enjoy the features equally. Now the users choose from the various cities across Karnataka in which they have the option to choose any activity they wish for, which in turn gets highlighted in the application. The selected places will provide the user a small description about those places along with a few images. Following this, is the cost confirmation page which gives the overall cost per head and provides the users an option to make the required booking?

Once the places are booked by the tourist, they have the option to book the mode of transportation. This is how various functions in the application can be experienced by the users.

2. Literature Survey

An android based Mobile Application for Travel Package Recommendation helps customer to customize their own packages within android mobile phone. The use of Google maps is increasing day by day. The present existing system provides pre- defined packages which suggest customers to visit places in a comfortable season and the packages might consist of places which customer might not be interested in. This can be avoided by implementing the proposed system. This paper presents the architecture and design specification for travel package recommendation system on android platform. The places aren't categorized based on the activity type which is included in the proposed system. This application is built using Java, XML. XML is used to create the activity page whereas java is used to provide functionality for each text box or

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button. Using intent class we can move from one activity page to another. We also use view function to link the java object with the XML ID.

3. System Design

System design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements.

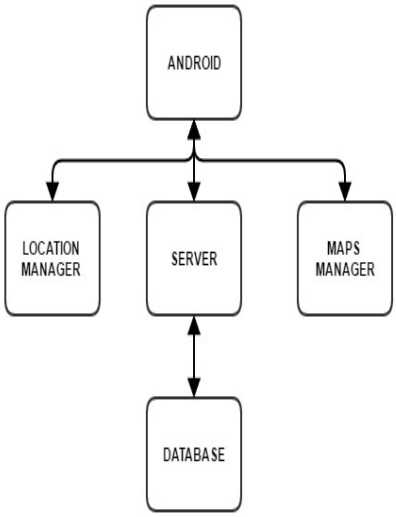

Figure 1. System design architecture of travel package recommendation system.

System design in Figure 1 shows the architecture of Travel Package Recommendation System. Design shows the android system maintains the track of all data such as all the places stored on the cloud as backend, all the places description and their location.

In this system, we store the latitude and longitude of the required places in the backend which is on cloud called back endless. After storing the data on backend, we use maps in the front end which fetches these data and locates them on to the map and also shows the name of the place. By this method, customers can view the places and book them.

4. Discussion

Travel Package Recommendation system provides five activities for user interface these are Login page, Register page, Type of Activity Page, Map page and Booking page. Figure 2 consists of two text field and two buttons. The edit text fields are for entering username and password. One button is for login and another is for register. If the customer is new they have to first register in order to login. On clicking the login button, the page moves to category page. By clicking on register button, the page moves to register page as shown in Figure 3. This system works in combination with Java, XML, Splash screen and back endless cloud database. Different activities interact with each other using intent.

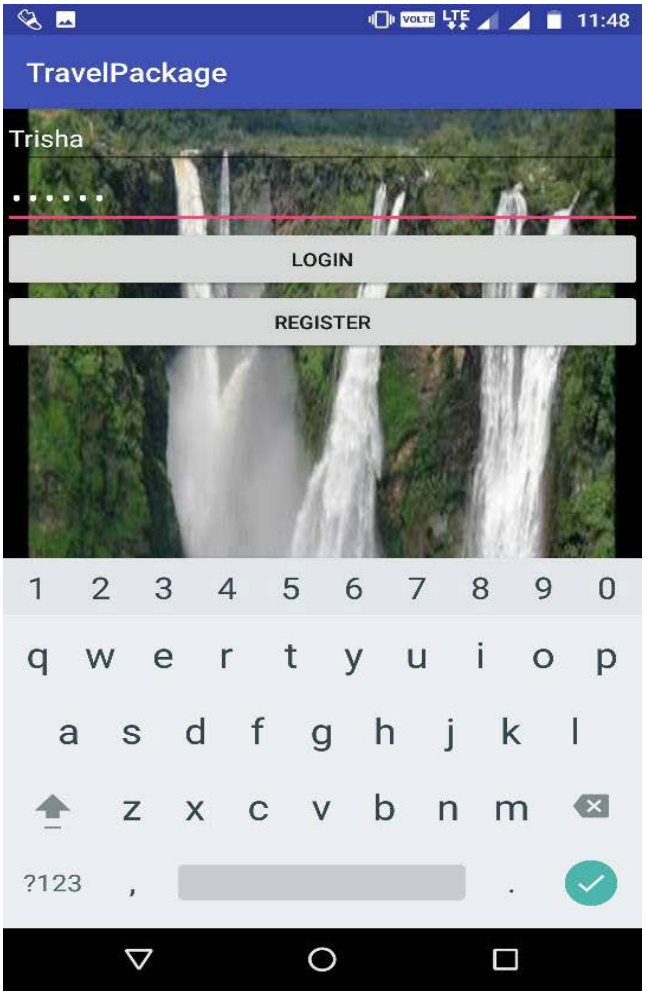

Figure 2. Activity showing login screen.

Map activity is very essential to show all the places around the city provided by the customer under the type of activity they wish to do. Once the customer chooses the type of activity they wish to do, the application takes them to map activity page as shown in Figure 4. This activity consists of a text field, button and a map fragment. The text field is used to take the city name from the customer. Submit button maps the places nearby the name provided by the customer on the map. The map fragment displays all the nearby places. These functionalities are shown in Figure 5.

Figure 3. Register screen.

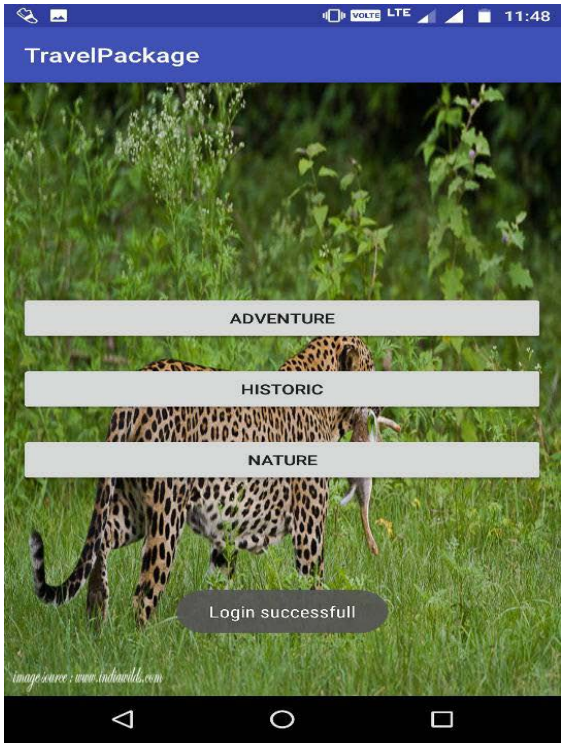

Figure 4. Customer to choose type of activity.

Figure 5. Pinpointing places on Google maps.

As shown in Figure 6, once the customer has chosen the place they wish to visit, the application takes them to next activity where they can choose the number of people visiting that particular place. Once the customer confirms booking, a message is sent to the owner of that place stating these many people are coming. If the owner wishes to confirm the ticket they have to send a SMS "BookingRequest".

5. Implementation

Android is an open source software based on Linux with a Java programming interface. The Android Software Development Kit (Android SDK) consists of all necessary tools that are required for the development of the application. Android Studio consists of inbuilt compiler, debugger and emulator (virtual android device) through which we run the application. Firstly, Google Play

Services Library is installed by the Android SDK Manager. Then Google Play Services Library project imported into workspace as reference of this project. Then, Android Manifest.xml file is manipulated for this application. Some changes are done in Gradle files for permission issue. After all these steps code implementation based on Google map and database connectivity is done to get the proper output.

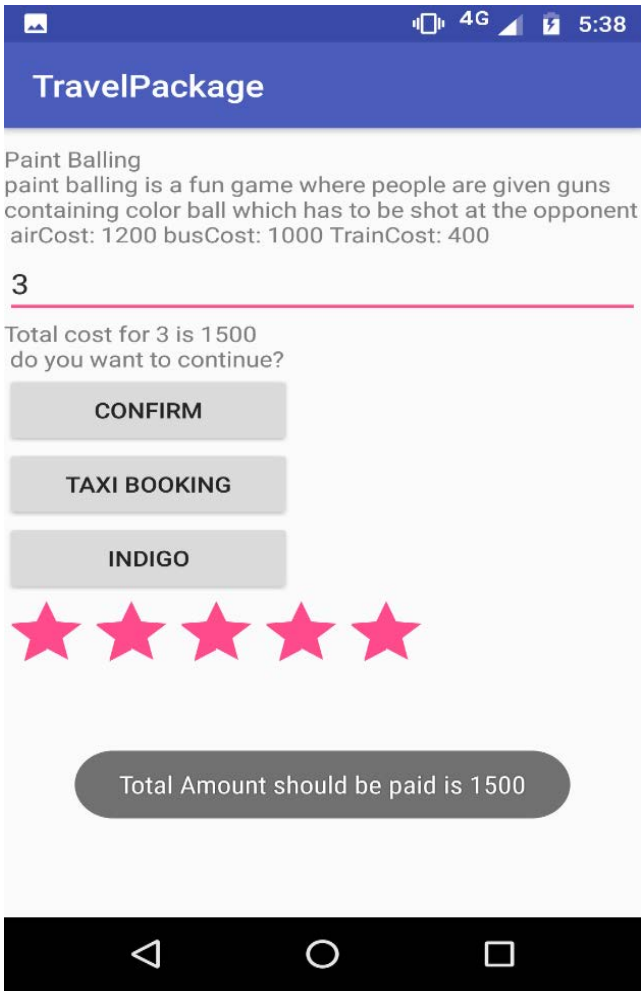

Figure 6. Booking the package.

6. Conclusion

Travel Package Recommendation android application was able to achieve its objectives with ease. Using the existing application such as make my trip customers were not able to book customized packages. Moreover, the existing system recommended packages that were more appropriate for other seasons. This application overcomes these drawbacks by letting the customer decide and choose their own packages.

This application provides log in verification so that no one else can access the information present inside it. Once the users logs in, they can choose the type of activity they wish to do and then choose the place they want to visit. Once they are sure they can book it and a message will be sent to that place as confirmation. Customers can also book taxi and flights by clicking on the button provided which directs them directly to their respective application. By this way the customer's satisfaction is achieved. This application is built on android so that it can be accessed on presently available smart phones and it is easy to use.

7. Acknowledgement

The satisfaction and euphoria that accompany the successful completion of any task would be incomplete without the mention of the people who made it possible, whose constant guidance and encouragement crowned our effort with success.

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