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A Survey on Tourism App Using Kotlin and Firebase

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A B S T R A C T

Travel has grown to be a significant component of people's relaxation and fatigue relief in today's culture. However, the majority of travel applications on the market are commercial, have boring content, and have little user involvement. An industry where the usage of mobile applications to support various activities has increased is tourism, which is a sector of significant social and economic importance. Mobile applications can be helpful in this industry not just for tourists in general but especially for those with disabilities or restrictions of any kind. Mobile applications can assist these people in finding information and suggestions for points of interest that are appropriate for their needs and in line with their interests. This paper presents the development of a mobile application for presenting and tailored recommendation of areas of interest for inclusive tourism. This app is useful to find better locations as per whether for the visitor. The objective is to create an Android OS smartphone application that can deliver information that fits the user's profile. This program distinguishes itself by enabling automatic information filtering, taking into account the user's location and profile, and giving him more individualized information that is relevant and suited to his circumstances, helping to improve inclusion.

Keywords: Consumer Reviews, Consumer Mobile App, Tourism Strategy, Tourist Reviews.

1. Introduction

The tourism sector is a sector of great social and economic importance and is one of the sectors where there has been a growth in the use of mobile applications to support several activities. In this sector, mobile applications can be useful for tourists in general, but also for those who have some kind of disability or restriction. In such scenarios, mobile applications can help us in order to get information and recommendation of points of interest that are in accordance with their interests and are suitable to their restrictions. this app is useful to search for better locations as per whether for tourist This paper describes the development of a mobile application for presentation and personalized recommendation of points of interest for inclusive tourism. The main goal of this application is to run on a smartphone which has Android OS and which will be able to provide the user with information compatible with their profile. This application allows automatic filtering of information and considering the location and profile of the user which will provide him/her with more personalized and accurate information which will be relevant and appropriate to his/her situation and this will contribute to better inclusion. The importance of the tourism industry to nations around the world is growing quickly. Since the invention of smartphones, tourists visit locations of interest and post their opinions on a variety of social media platforms and websites. These emotions offer readers a thorough understanding of a tourism site. Readers could be undecided about going to the tourist destination due to the diverse range of feelings conveyed.

2. Related Work

In this paper, the author represents an application scenario to describe the entire process of Mobile applications for the travel industry to help clients choose a mode of transportation, make reservations for hotels, plan routes, and more. The following additional tourist services can be provided via mobile tourism apps: (1) Navigation - GPS services, route planning, and maps (2) Social - Updates on travel, reviews, photo galleries, unrestricted communication, etc. (3) Mobile Marketing - Contests, discounts, and offer alerts (4) Security - Medical, Emergency calls, and information on local & international health agencies (5) E-commerce - Purchasing tickets, making reservations abroad, and shopping. In fact, apps are being used by the tourism sector to increase user engagement and market penetration. Future mobile tourism applications will be influenced by a number of new trends and technological considerations. There are tourism apps like 1. Citymapper- It offers detailed directions on how to locate the closest bus and rail stations—assists travelers in finding the

quickest route to their destination. 2. PackPoint - It simplifies packing by generating a list of the items you'll need for the trip that is specifically tailored to you. The app will generate a personalized packing list that you can save for later use once you enter your destination, trip dates, length of stay, and any activities that may call for particular equipment, such as hiking or swimming. 3. AllTrials - If you want to spend some time outside, this app will show you the greatest jogging, bicycling, and hiking trails around. Along with information about the trail's length, the beginning point, and condition. 4. Hopper - It can be difficult to decide whether to book a flight now or wait because the cost can change. When it comes to finding the best deals on tickets, Hopper can help you save up to 40%.

3. Proposed System

The user or tourist may quickly reach their destination with the aid of this technology, and they can also explore the route and their destination. The user's initial step is to sign up or log in. After completing these procedures, the user must choose a means of transportation to get to their location. They have three options: bus, train, or road (i.e., the user will select a road trip/mode of transportation). If the user chooses the road option, the app will show the route to the destination and what makes this feature unique is that the user will get the recommendation of the tourist attractions so that the user can enjoy the trip even more. If the user chooses the bus or train option, the user will get the details of the available buses and trains. Additionally, the user will receive recommendations for well-known restaurants in addition to tourism destinations. Users can also post photos, written reviews, or videos of restaurants and tourist attractions. If the user plans to stay at the destination for a few days after arriving, they will receive hotel recommendations. The user will receive recommendations for the hotel's greatest food items after selecting the top hotel from the list of suggested hotels, and they can also contribute reviews of the hotel's dining options.

There are situations where two or more families travel together and there is a budget imbalance as a result. To prevent these situations, we developed a function that allows users to manage their budgets using split budget features. Families' budgets won't become unbalanced in this way. A feature will allow group 1 to SMS group 2 their location if a group of 10 people is exploring the city and five of them are heading to a different location (group 1) and the other five are going to a different location (group 2). Both groups will be informed of the current location of the other group in this fashion. This is the systematic methodology that has been proposed and is being used in this system. With these characteristics, the user can utilize this program with confidence and benefit from a better travel experience.

4. System Requirements

Software Requirements:

- Front End- XML
- Language- Kotlin
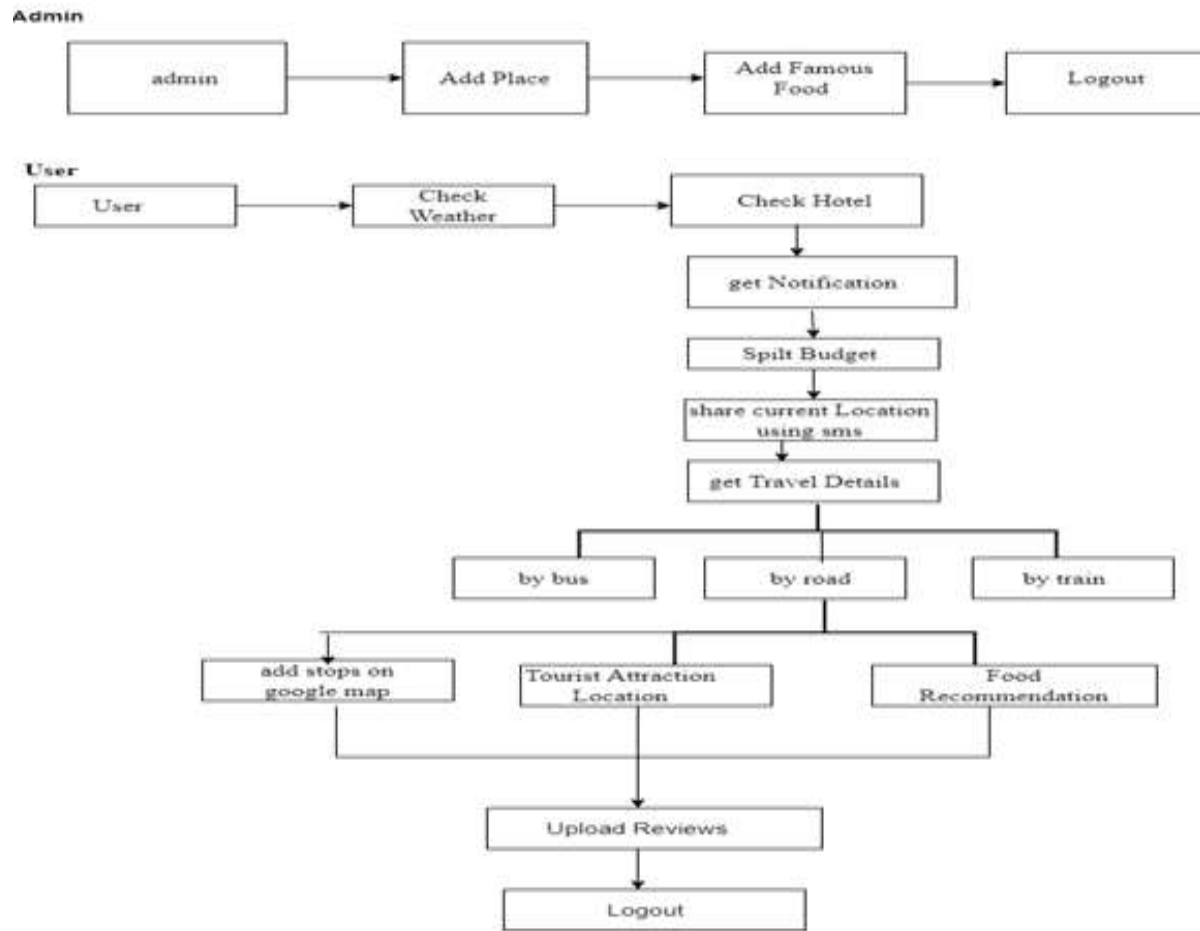- IDE: Android Studio
- Database: Firebase

Hardware Requirements:

- System: Intel core.
- Hard Disk: 500 GB.
- Ram: 8 GB
- Android Device for application

## 5. Dependencies

i) We rely on location information.

6. Architecture Diagram

7. Advantages

- ❖ *Easy to use.*
- ❖ *You can check the weather status.*
- ❖ *You can check nearby hotels.*
- ❖ *Adding reviews of hotels, food, and tourist attractions can help other users.*
- ❖ *Split budget feature will avoid imbalance in the budget.*
- ❖ *User can send his/her current location to another user, in this way both the users will be updated with each others location.*
- ❖ *Chatbot feature is available for the user in case of any query .*

8. UML Diagram
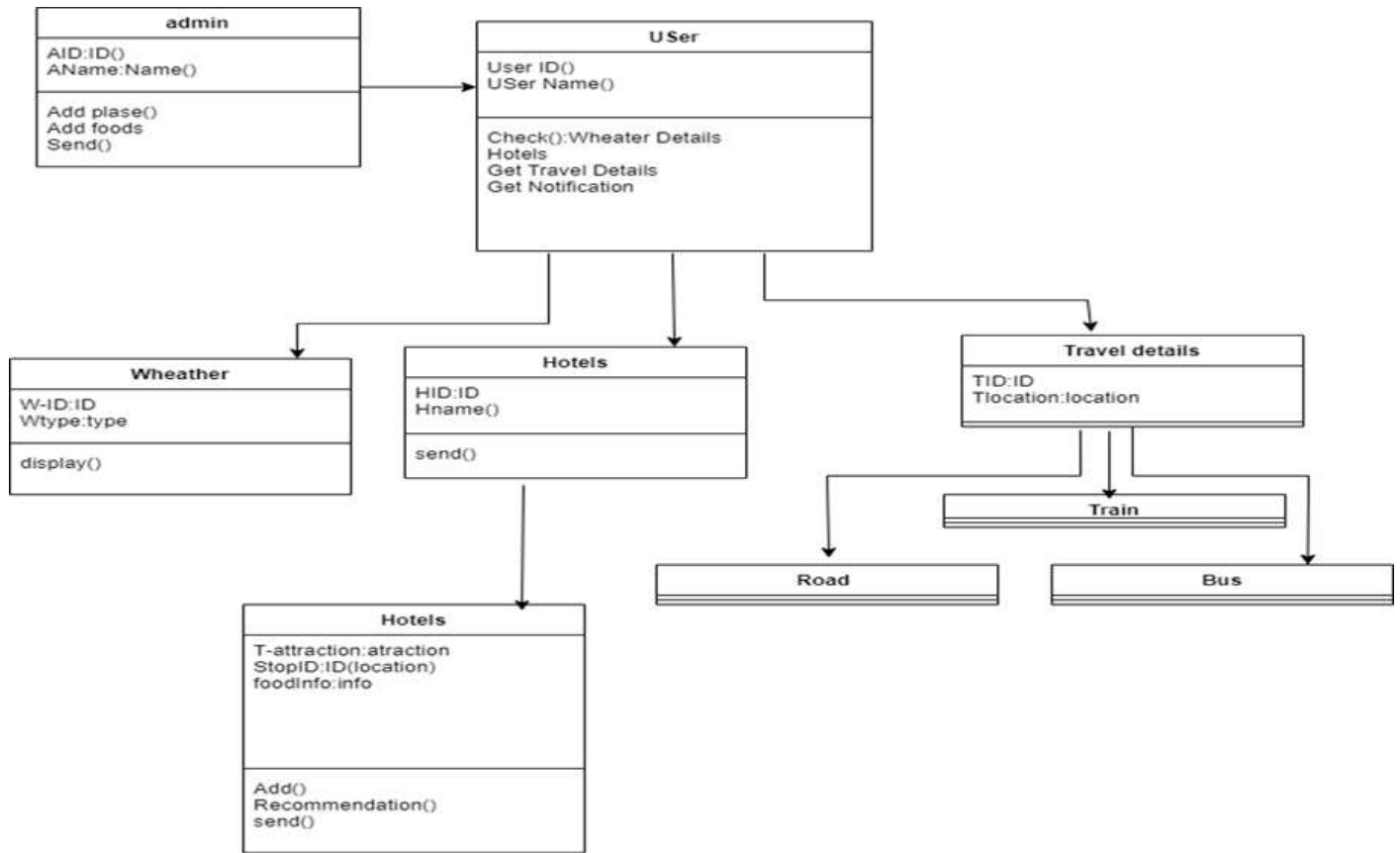
9. Literature Survey

Design and Implementation of Mobile Multimedia System in Cultural Tourism Field under the Condition of Media Convergence 2020, Author Y iting Ping and Lingjun Yang, Sanxing Cao[1]. Travel has grown to be a significant component of people's relaxation and fatigue relief in today's culture. However, most of the tourism apps in the market are for profit, with some monotonous content and low interaction. Therefore, this paper's aim is to design a multimedia system in the field of cultural tourism which will be based on this phenomenon and will be combined with multiple media technologies, relying on WeChat mini program platform. This system includes 5 major function modules, which will not only allow visitors to preview the scenic spots in advance, but will also help them to learn about the history of the scenic spots they're visiting. It is diversified in the form and content, which has great significance in future research and development in the field of culture and tourism. The Impact of Tik Tok Video Marketing on Tourist Destination Image Cognition and Tourism Intention 2020. Author Xiao Chenchen, Xie Zhenqiang [2]. As new and trending mobile social platform, Tik Tok APP has changed the potential tourists get information. From the perspective of tourists' perception, the study empirically studies the impact of Tik Tok on tourist's destination image perception and tourism intention. The findings demonstrate that Tik Tok influences tourists' perceptions of a destination's image and their intention to travel there, with interactive marketing playing a more important role in the impact of short video marketing on image perception than the effect of urban architecture and delicacy on tourists' intention to travel there. Based on this, the report offers some pointed recommendations for Tik Tok destination marketing in the tourism industry. . Exploiting Digital TV Users' Preferences in a Tourism Recommender System based on Semantic Reasoning 2010. Author Y. Blanco-Fernández, M. López-Nores, J. J. Pazos-Arias, A. Gil-Solla, and M. Ramos-Cabrer [3]. Tourism recommender systems assist people to choose where to go and what to do by matching their interests with the enormous variety of tourist information. Current methods call for users to initialize their profiles by precisely articulating their interests, which is a very time-consuming procedure. We suggest a system that automatically determines users' preferences based on their TV viewing histories, meaning that the tourist sites users will find appealing are chosen by taking into account the TV programming they have previously viewed. To achieve this, we have created a semantics-based filtering technique that takes into account both user preferences and shared interests. The resulting suggestions form a personalized trip itinerary that customers can access through residential and portable consumer electronics. User Experience Based Urban Tourism App Interface Design 2018. Author Lili Zhang; Peiying Shen [4]. The platform for providing tourism information and services has grown quickly in response to the rising demand for travel in the digital age. This study used service design techniques to examine how to create a user-centered complete platform for tourism information and service, using the "Suizhou Tourism App" as an example. By developing an information architecture and doing a functional analysis based on competitive analysis, a design prototype was produced. After that, a usability test was planned to gather comments, make suggestions, and address any design issues.

10. Conclusion

We have studied numerous study articles and drawn conclusions regarding our system from them. In this essay, opinions and reviews regarding various features are categorized as either good or negative. As a break is just what people need after leading busy lives. And this system ensures that this vacation should not be ruined for trivial reasons by offering some incredible features that one can never imagine. Consequently, this approach aids users in having a better and worthwhile trip.

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