

Study and reviews of smart city based tourism mobile app

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Abstract— This paper is showing the study of the different android application for tourism. As it is not possible for the tourist to always prefer the guide book, guide or any other sources for the information of any location. To provide facilities to the users for the purpose of tourism different kind of android app has been made. In this paper we are providing with the comparison between the top 10 tourism apps which are trending in the market. By having the study on these comparisons of different tourism apps it is easy to get the idea of the better app. On the basis of this comparison we will make an android tourism app which will include all those functionalities which are best is the studied app. Along with that we will also provide some new features it.

Keywords—Tourism, GPS, Smart City, Application, Push notification.

I. INTRODUCTION

A smart city is defined as the integrated form of multiple technological solutions in a secure manner. This is used to manage the city's assets. The city assets include but not limited to, the local departments information system, school, libraries, transportation system, power plants and other community services. The main aim of building the smart city is to improve the quality of the life of citizens and meet the resident's needs. With the help of information and communication system (ICT) smart city enhance the quality, performance and interactivity of urban services. It helps in reducing the costs and resource consumption. It also improves the contact between citizens and government.

The sector which are working on the smart city smart city technology include government services, transport and traffic management, energy health care, water, innovative urban agriculture and waste management. Smart city applications are developed keeping in mind about improving the management of urban flows.

In today's world the mobile app is playing a major role in making the city as a smart city. This kind of application helps the citizens to report about the local problems such aspotholes, illegal trash dumping, faulty street lights, and broken tiles on sidewalls, and illegal advertising boards. After submitting the reports the issues are displayed on the city's map. The user can add photos can drop comments or suggestion

which helps in the betterment of the city's environment.

Some mobile applications that are contributing its effort in making the life of city as smart as can:

A. CITY BUSES

It gives the detailed information about how to reach the destination via public transport city buses, routes covered by it. Also about the timings for a particular bus, list of nearby bus stops.

B. EVENTS

Give the brief information about the events, schedule for that events, and venue for that. One can also post the event to give the information about that if he is conducting that event.

C. TRAFFIC

Providing the current scenario of the traffic of any particular area. Also provide the better path to reach to the destination.

D. TOURISM AND CITY GUIDE

It provides the detailed information about the area, the famous places of those area, restaurant, hotels, shopping mall etc. and all the related details of these places. This provides the user very easy way to visit any place.

E. PARKING

It provides the user with idea about the parking area of the nearby location. It gives the information of the area whether is it is vacant for the parking or not. Moreover it also tells the path for the parking location so that the user can easily find the location for it.

F. SHOPPING

Shopping app helps in enhancing the experience or having easy comparison and transaction. It helps the customers to make better choices, create solution for a sustainable consumption, and provide the customers to connect with the local businesses.

G. WELTY

The application provide a feature of wallet in which money could be stored that can be used for any online transaction like online shopping, online money transfer, paying electricity bills, mobile recharges, etc.

II. PROPOSED IMPLEMENTATION

We are going to develop a mobile application which will help the comity to know about the detailed information of any specific region. This app is basically for the new comer in any city or any place. Through this app we will provide the information about that particular place. Not only the information but also the famous places of those areas, the distance of those areas from any particular location, the specialty about those places. Along with the famous place this app will show the nearby location also.

This app will help the tourists in great extent. Not only the tourist but anyone can use this app for the guideline regarding any places. This app can be used in anywhere by anyone. As it's a mobile application which is user friendly as well as pocket friendly too. In today's generation the smart phone has become so common that it can be available in anyone's pocket. These kind of mobile application helps in making the city as smart as can by providing the facility to the user anywhere.

In this application we will use the GSM (Global system for mobile communication) services, GPS (Global positioning system) services; this will help in finding the location easily. GPS is the space based navigation system that provides location and time information in all weather conditions, anywhere. Similarly the GSM services were developed to describe the protocols for the second-generation (2G) digital cellular networks used by mobile phones. GSM is the cellular networks which means that cell phones connect to is searching for the cells in the immediate vicinity.

By having all these facilities the users get easy way of finding any place and can make their tourism more interesting.

III. RELATED WORKS

Travel and tourism industry is a huge sector with a 6.3 trillion dollar per year according to the 2015 statistic. This is due to the contribution of both the sector i.e. the travel and tourism and the mobile app industries. A huge part of success is because of the mobile apps. These travel apps replace the days of guidebooks, compasses, maps and other printed stuffs. Smartphones make it more portable to carry all the resource that you need to have while travelling. According to this particular source these are the top ten locations namely California, Thailand, Portugal,

Australia, Hungary, South Africa, United Arab Emirates, Russia, and Spain, India. Now in this section we will discuss the various apps that have been developed for these particular countries for doing smart work or helping tourism or the tourist to visit the countries in a better way so that these cities can get converted into smart cities. Now talking about the various features of those applications.

A. CALIFORNIA TRAVEL GUIDE WITHME

California travel Guide WithMe is an offline travel guide, which give the detailed articles around the countries in relation to the current locations. It's a great source for the general travel information as well as for the beaten track advice This app is also provided with the information of how to stay safe and healthy, about the restaurants and hotels (all with low costs and taxes) including all the road rules and verities of other information are stored in one single app.

B. TOURISM THAILAND

Application with Tourism Thailand by the Tourism Authority of Thailand is provided with the information on the tourism in country. This information includes the attractions, accommodation restaurants, shopping, events, festivals and about the famous foods.

C. VISIT PORTUGAL TRAVEL GUIDE

The best feature of this Visit Portugal Travel Guide is that it is free; it is available in 10 languages (Portugal, English, Spanish, German, French, Italian, Dutch, Russian, Japanese and Mandarin. This app is available in both online and offline with no roaming expenses. This app also contain the geo referenced Reality with it.

This app gives the information and holiday suggestion according to your interest. Also about the mini holidays, Art and Culture, Religious Tourism etc.

D. AUSTRALIA TOURISM

This app helps in planning the trip to Australia and provide 1 hour of unlimited access to all the information and features in your travel guide. This app is available in 2 languages and this app works 100% offline. This app always let you know that where you actually are. It provides travel tips from thousands of travellers. It provides the information of hotels, attractions, bars, clubs and many more.

E. HUNGARY- TRAVEL GUIDE

This mobile Reference Travel Guide provides the detailed information and the practical information about the attractions, landmarks transportation, cultural venue, dining, lodging, history and much more. Attraction can be viewed on an offline GPS along with the current location, so that they can easily find the attraction near you as you explore the city.

F. SOUTH AFRICA TRAVEL GUIDE

This provides the information about the location including the pictures, detailed and an offline map. This offline map helps you in finding your way without internet access. It helps in having all the country information before you go. It also provides the details of events where you should go if you can. It also gives the current location time and also provides the details of the local weather.

G. TRAVEL DUBAI, UNITED ARAB EMIRATES

This mobile reference guides helps you to get most out of your vacation. It's a kind of guides which are available for most of the destinations worldwide and always include FREE offline GPS maps. The GPS may display your location along with the nearby sights and attractions. There will be no roaming charges for this. This can also help in finding the top restaurants and select them individually. The attraction articles can be accessed from both an alphabetical and a categorical index.

H. RUSSIA GUIDE WITHME

This Russia Guide WithMe is an offline travel guide, which recommends detailed articles around the location in respect to your current location. This app is rich in source of general travel info as well of the beaten track advice. This app is based on the map data which is MAPS.ME (it's an offline maps app). This provides an option to view the place on offline map is offered. It also helps in saving the money on roaming fees and refers to the articles even you are offline and the cellular Data is not available.

I. TRAVEL SPAIN

If you want to travel to Spain, this tourism app is for you. This app provides the information that you need in your Spain travel guide. It is very easy to use, and you will find everything you need in your mobile

phone or tablet. The following facilities this app includes and these are:

- Booking of flight, hotels in travel guide of Spain.
- All the tourist attraction place and cities which you want to see in Spain.
- It provides the map of Spain with all interesting point and also the photos and videos of all tourist places in Spain.

J. MAKEMYTRIP

This MakeMyTrip app is the famous app for the traveling purpose in India. It provides with the facilities of flight booking, hotel booking, bus booking, IRCTC authorized rail booking, PNR status and all in the cheapest form. It helps in managing the trip also. This app is very fast, safe and secure. It also provides amazing travel deals with the mobile app users.

S.No	Name of Apps	Features
1	California Travel Guide WithMe	offline traveling app
		Detailed information
		Security and healthy environment
		Information about road rules
2	Tourism Thailand	Information about the places, events, foods etc.
3	Visit Portugal Travel Guide	No roaming expenses
		Available in 10 languages
		Both offline and online
		Information about the place, events, cultural.
		Information about the place, events, cultural.
Provide holiday suggestion.		
4	Australia Tourism	Planning trip
		Traveling tips
		1hr unlimited access to the features of this app
5	Hungary-Travel Guide	Detailed information.
		offline traveling app
		GPS facilities
6	South-Africa Travel Guide	Information about the country
		Current location time and weather condition.
		Map details

7	Travel Dubai, United Arab Emirates	Free offline app with GPS system
		No roaming charges.
		Information about the place.
8	Russia Guide WithMe	Offline traveling app.
		No roaming charges, map information.
		Information about the locations.
9	Travel Spain	Easy to use.
		Information about Spain travel guide.
		Facilities of booking(hotels, flight etc.)
10	MakeMyTrip	Helps in managing the trip.
		Provide details of location.
		Facilities of booking.
		Provide PNR status.
		Fast, safe and secure.

IV. PROPOSED APPLICATION

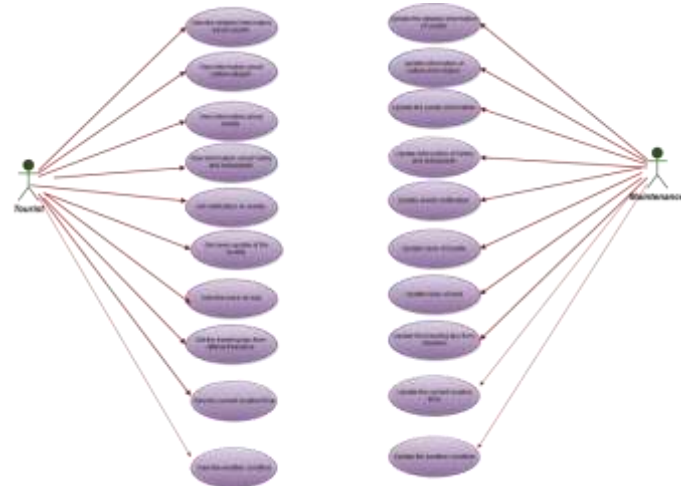
On the basis of the survey of the 10 applications from different countries, now we are proposing two more extra features apart from those features that already have in those applications. The features from the existing applications which we are including in our application also are:

1. Providing the detailed information about the country including all the places, culture, religion, events, hotels, restaurants etc.
2. Giving the detailed information of the rules of road.
3. Providing the map for any particular location.
4. Providing the traveling tips from different travellers.
5. It will give the current location time, and will also give the detailing of the weather condition of the current location.

Apart from these functionalities we will also provide two more features with this and those are:

1. Push notification on events.
In this it will basically show the notification related to the events if any event is occurring. Let suppose any concert is going to occur at any place then it will give the notification regarding to that event.
2. News update of the locality.
It will update you with the latest news of any particular area by fetching the location by which we will try and find that what kind of

latest update news we are having about that particular location. So that it can be easy for the travellers to have an idea about that particular location before going at that area.



V. CONCLUSION

In this paper we have discussed various applications regarding tourism belonging to various countries This paper also focuses on various specific features set of the application that make it eligible for helping the people which ultimately help in making a good application for a smart city. This paper basically focuses on the finding out the different attributes for tourism based application so that we can have the idea about what sort of attributes should these kind of application generally have. For this we have surveyed some tourism based application of top 10 tourist places from various countries. On the basis of that we found out some common parameters that the good tourism application should have to embed in itself for a smart city purpose. Apart from this we have also added two more features into this application. This application will help the tourist as well as the city in making it as a smart city.

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