A Survey of Smart city applications

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***Abstract*: This paper is showing the study of the android application for booking and 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 some 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 app which will include all those functionalities which will help tourists. Along with that we will also provide some new features to it.**

***Index Terms*: Android, Smartcity, Kotlin**

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 basic requirements of tourist. This application include various facilities such as booking hotels, Travelling, Directions to healthcare centers and popular places to visit. The main aim of building the smart city application is to improve the quality of the life of citizens and commuters. With the help of google maps getting directions 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. Smart city applications are developed keeping in mind that 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 reduces the efforts of tourists. The user can drop comments or suggestion.

II. LITERATURE REVIEW

The primary motivation of this project is a website and an Android Application, A Doctor-Patient Portal for Parkar Hospital [1] which is deployed at Parkar Hospital in Ratnagiri for the patients or Medical Representatives or other visitors to choose specific doctor and book an appointment with him/her as per the slots specified by the doctor. We decided to adopt such an application for our city Dapoli too for the commuters and citizens' convinience. As it is not attainable for the commuters and citizens to always prefer the guide book, mentor or any other sources for the information of any location. To supply facilities to the user for the aim of tourism android application has been made. A urban area can be acknowledge as smart when city operation and services such as healthcare, transport are backed through ICT (Information and Communication Technology) infrastructure in order to promote efficiently and comfort of operation. 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 particular bus, list of nearby bus stops. It supply the detailed knowledge about the area, the famous places of those area, restaurant, hotels etc. and all the related details about these places. This provide the user very easy method to visit any place[2].

Advantages:

- Providing all the detailed information about all the places, culture, religion, events, hotels, restaurants etc.
- Giving detailed information and map for any particular location.
- Providing the travelling and hotels feedback from the different travelers.

Drawbacks:

- This scheme is completely new to the users and the proposed confirmation methods should be verified extensive.
- In graphical password there is also problem for shoulder surfing.
- The major drawback of this approach is that such system can be expensive and the identification process can be slow

The key idea in [3] is to integrate information system services of each domain, such as health, education, transportation, power grid. The proposed structure is based on a hierarchical model of data storage and defines how unlike stakeholders will be communicating and offering services to tourist. The architecture promotes step by step implementation towards a smart city, merge services, as they are developed in a convenient manner. The operations and services to citizens such as healthcare, education, transport, parking and electricity grid are supported through ICT (Information and Communication Technology) infrastructure in order to expedite efficiency and ease of operation. Offering digital means for supporting social needs in all daily transaction, to adapt the citizens to

the notion of the information society and to collect information from the public departments and citizens in order to support sustainable growth in the city

Advantages:

- The city can be considered as a massive information systems of several smaller but efficient subsystems that connected with each other.

- Proposed a zone-based architecture for data storage and management in order to address key challenges for smart city information system management.

- Smart city initiatives are fundamentally based on ICT. The latest developments in cloud computing, Internet of Things, open data, sematic web, and future internet technologies will be leading technologies to enable smart city.

- Hierarchical data management architecture is proposed that facilitate distributed data management at zone level enhancing efficiency, availability and scalability of services.

The Advanced Metering Infrastructure, and the Internet of Things, each smart city is equipped with various kinds of electronic devices[4]. Therefore, equipment and technologies allow us to be smarter and make different aspects of smart cities more available and relevant. The IoT paradigm is in the power of smart and self-configuring devices which are well linked together by global grid infrastructures. IoT can be typically defined as a real object, largely dispersed, with low storage capabilities and processing capacities, while aiming at enhancing reliability, performance and security of the smart cities as well as their infrastructure.

Advantages:

- In an IoT environment, you can aggregated devices according to their geographical position and can assessed by applying analyzing systems. Sensor services for gathering specific data are utilized with some ongoing projects concerning the control of each cyclist, vehicle, parking lot and so forth.

- The developments on the Internet provide a substructure that implements a lot of persons to interlink with each other.

- The lucrative implementation of the IoT might lead to the production of several services which interact with the environment. Therefore, it may present a number of prospects for contextualization and geo-awareness.

- The usage of the IoT grants smart management and control of energy distribution and decrease in heterogeneous conditions. The IoT node has various abilities like sensing and networking that increments the probability of optimum development of energy providers.

Drawbacks:

- IoT-based systems cause some reliability problems. For example, due to cars mobility, the interrelationship among them is not very trustworthy. The participation of large numbers of smart technologies would point to some reliability challenges, specifically concerning their failure.

- The authorities have to analyze their intention scheme, describe the needed hardware/software and afterward combine these heterogeneous subsystems. Providing such substructures and the procurement of a proper cooperating scheme among them is indeed a major challenging mission for.

- Cities must accept serious measures to assure the privacy and security of citizen data. Without this guarantee, citizens cannot trust to government, and the collection of the information will be difficult.

- Considering around 50,000,000,000 devices, it is definitely essential to pay attention to data transfer, storage and recall as well as analyze the large amount of information generated by them [3]. It is clear that the IoT substructures would be some of these important sources of big data. In big data problems, three main specifications are featured, consisting of the number, speed as well as variance. Hence, smart meter information is received according to these specifications.

III. ARCHITECTURE DIAGRAM

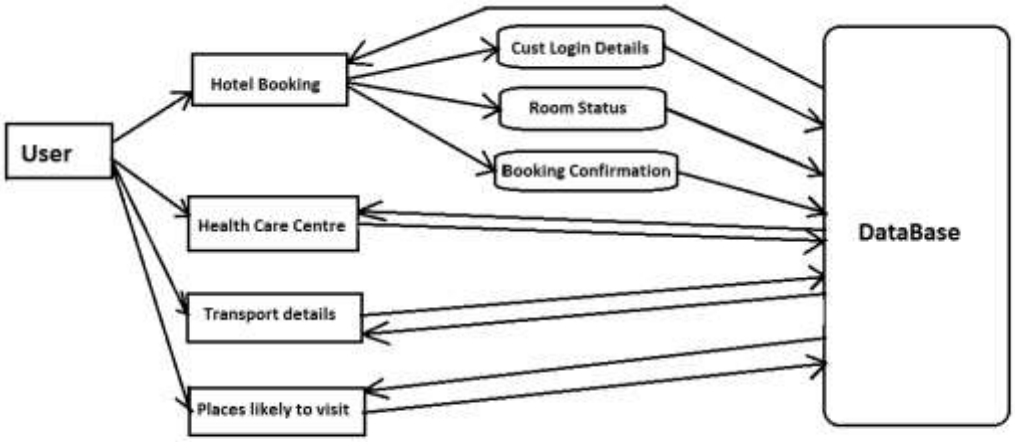

Figure 1. System Architecture

In above architecture diagram figure. 1, we have shown the main modules of our system. We are using Kotlin language 1.2.71 and MongoDB to make an application. This application will satisfy the normal regular operations precisely to fulfill the user objectives. Application will focus on securing the customer information and avoid data losses as much as possible. The Smart City app is intended to make easy access to hotels, health care centers travels and places likely to visit for the citizens and commuters of the city.

IV. CONCLUSION

In this paper we have discussed various methods regarding tourism. This paper focuses on different features set of the application that make it eligible for helping the citizens and commuters which ultimately help in making a good application . This paper basically target on the finding out the different aspects for tourism based application so that we can have the idea about what sort of aspects should these kind of application generally have. For this we have examined some tourism based applications. On the basis of that we found out some ordinary things that the good tourism application should have to implant in itself for a smart application purpose. Apart from this we have also added two more features into this application. This application will help the tourist as well as the citizens in making it as a smart application.

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