City Tour Traveller: Based on FourSquare API

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Abstract: *Smartphones performs the important role in today's lifestyle of each and every human being. All the important and easy things are done through the mobile application and the development of different application has been developed day by day. In such applications, location system i.e GPS have been used as an important module of the application. We propose application of "City Tour Traveller" (CTT) system based on Internet and GPS for Mumbai that is able to provide tourism information to the mobile users for Mumbai city easily.*

The successful design of the Travel App with correct direction, place to visit and models will give the best experience to explore the City. The app will also be useful to make a travel plan within a given stipulated time period. It will also help for those user who are not familiar with Mumbai and want to explore Mumbai in small span.

Keywords-City Tour Traveller(CTT),route planning

1.INTRODUCTION

There has been a huge development in information technology recently. In addition, GIS has been commonly used in different fields such as tourism enabling people from different countries and cultures to interact with each other very easily[1].

Common examples of networks include highways, railways, city streets, rivers, transportation routes (e.g., transit, school buses, garbage collection, and mail delivery), and utility distribution systems (e.g., electricity, telephone, water supply, and sewage). Collectively, these networks form the infrastructure of modern society[2].

Tourists visiting a new city are provided with city map that need to be viewed by the tourists in the application to find the fine printed locations to visit.

So, here we propose a City Tour Traveller system which helps a traveller to explore city visiting for first time and wanted to explore the city.

Our proposed system is a GIS based system that automatically creates schedule or it tell user to choose their place according to their specified location for the traveller for a whole day or a user specific timing period.

Traveller can perform task such as navigating through city maps, zoom into areas and also displays various amenities such as tourist places, hospitals, institutes as well as bus stops and train station.

The development of this system is done in android using FourSquare API which provides real world pre-defined places like Restaurants, Tourist Spot, etc.....

The system also provides information about the places that includes, how to reach it, description of the place along with detail and rating of the place.

Thus, the proposed system is a complete guide to help new comers to know about a new city and navigate the city with an internet connection.

2.LITERATURE SURVEY

There are many mobile tourism application which use Google API and normally shows about the places and their description and searches near places from your current location.

Many people feels the pain of searching and seeing different website to search places to be visited in particular city which might even not meet sometime their system requirements for which they also need to upgrade their app at first. When everything can be access on internet with just a system and internet connection it brings the burden down and help one to focus on main thing which in this case is by entering travel time and you will get the travel plan with places to be visited in particular city.

GPS has also made easy for user to see their current location and places. So we decided to bring such application which uses GPS and Four Square API which is different from Google API and it uses its own system.

3. EXISTING SYSTEM

There were not standards among the data during the system creating process and some problems occurred during transferring the graphical data to the GIS. Afterwards, the standards were formed between graphical and non-graphical data. All of the problems among the graphical data were solved by Arc Info Software.

Tourism has been considered to be one of the crucial industries in the world due to being source of income. It also enables people from different cultures to interact with each other.

Therefore, every country must be conscious of tourism and make use of GIS directed towards tourism effectively.

Every country should advertise her history, architectural characteristics of buildings in order to make them known all over the world. These details can be obtained in a query by forming a spatial connection with GIS.

4.DRAWBACK OF EXISTING SYSTEM

Manual efforts needed as people walk-in throughout the city searching for places.

Maintenance of the system is very difficult.

There is a possibility for getting inaccurate results.

It consumes more time for processing the activities.

5.PROPOSED SYSTEM

The purpose of developing this android application is to create a schedule for the traveller travelling to city and wanted to explore the city by specifying the time in hours. System then smartly analyzes the question that were given by user at the time of registration and creates a schedule for traveller based on provided time.

The development is done in two technical languages as Java for Android Application for User/Traveller and Asp .net for Web portal which is used by Admin.

First of all, traveller need to register himself by filling up the details using android application.

After successful registration, user can login using login credentials which then proceeds with questionnaire where application ask user about their likings and habits.

Based on questionnaire, application smartly analyzes for the place based on user specified time.

The application is capable enough to search the place automatically based on FourSquare API.

This application also helps you to find the places nearby you or around the world.

After searching a place, the map will show the details such as name, area, location, phone no. & kilometers from the current location of the user.

6.Modules and their Description

The system comprises of 2 major modules with their sub-modules as follows:

1. **User (Android Interface)**

    a. **Register**

User must register first by filling up the registration form to get started using the system.

    b. **Login**

After a successful registration, user can login into the system.

    c. **Questionnaire**

Some Questions Like Do You Drink, etc. (To decide what Likes)

    d. **Create Schedule**

Based on provided time, the system automatically creates a schedule for that user.

    e. **View Schedule**

After creating a schedule, user can view it and he/she may know where to visit using maps.

    f. **Feedback**

All the registered users can provide feedback to notify about the system

7. ADVANTAGES OF PROPOSED SYSTEM

This system can be used to view the location view in map that the user wishes to reach.

The user can also find the paths to follow to reach the final destination in map which gives a better view to the users.

Since the location can be viewed in map, the user can even zoom in and zoom out to get a better view.

The usage of this application greatly reduces the time required to search for a place.

The application also leads to quicker decision making with respect to places to visit.

7.Project Implementation Technology

The Project is loaded in Android Studio and Visual Studio 2010. We used those both software's for Designing and coding of project. Created and maintained all databases into SQL Server 2008, in that we create tables, write query for store data or record of project.
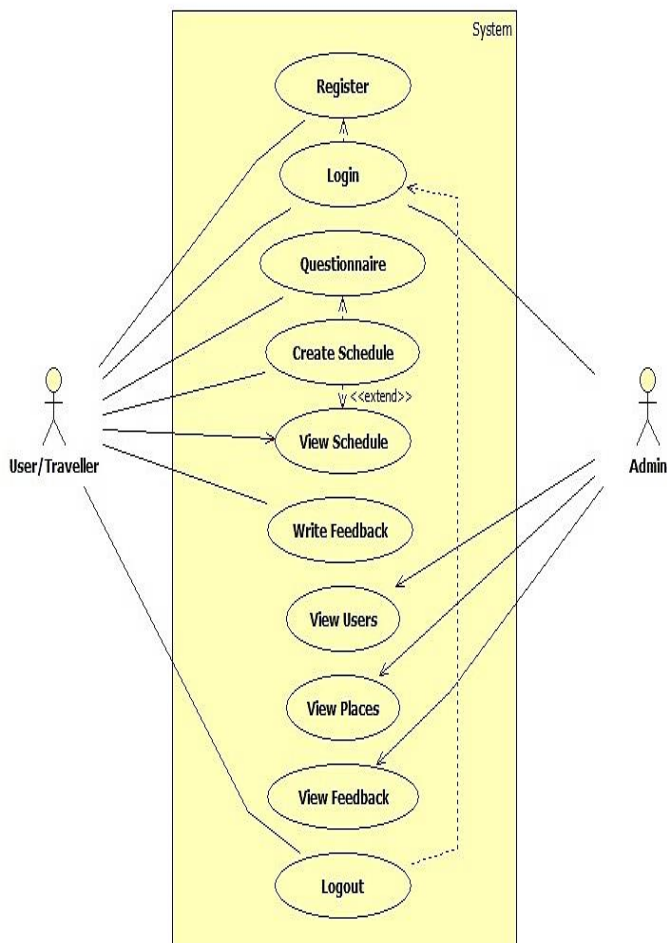
Hardware Requirement:

➢ i3 Processor Based Computer or higher

➢ Memory: 1 GB RAM

➢ Hard Drive: 50 GB

➢ Internet Connection

➢ Android Device

    ➢ 1 GB RAM
    ➢ 4 GB ROM
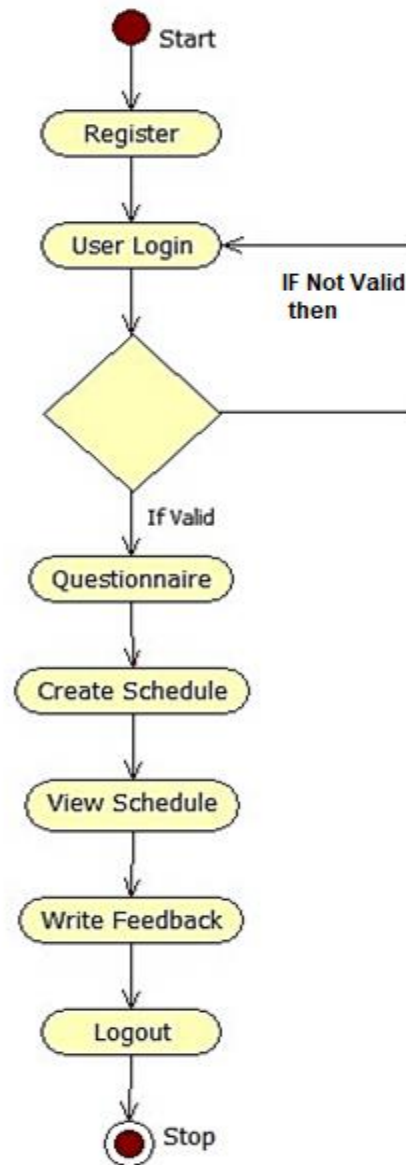   ➢ Processor 1.2 Ghz Quad Core or Higher

Software Requirement:

➢ Windows 7 or higher

➢ Visual studio 2010

➢ SQL Server 2008

➢ Android Studio

➢ Android 4.4 KitKat or higher

8.Use Case Diagram

9. FLOW OF SYSTEM

10. FEATURES OF PROPOESED SYSTEM

1) Load Balancing:

Since the system will be available only the admin logs in the amount of load on server will be limited to time period of admin access.

2) Easy Accessibility:

Records can be easily accessed and store and other information respectively.

3) User Friendly:

The application will be giving a very user friendly approach for all user.

4) Efficient and reliable:

Maintaining the all secured and database on the server which will be accessible according the user requirement without any maintenance cost will be a very efficient as compared to storing all the customer data on the spreadsheet or in physically in the record books.

5) Easy maintenance:

City Tour Traveller is design as easy way. So maintenance is also easy.

10. Conclusion

In this study, optimum planning for sightseeing, query of geographical data, obtaining the visual and detailed information about the geographical data and network analysis applications were carried out.

GIS design and application for tourism and network analysis help users to supply optimum planning for tourism. Moreover, users seem to save time via GIS design. In the future, importance of GIS will continue increasingly.

11. Acknowledgement

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