

## TRAVELOGRAPHY: Tour Guide Application

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**Abstract**— ‘Travelography’ is a tour guide application which will help travelers to explore the places of interest. It basically indicates the guiding application for handheld devices of travelers like Smartphone’s and tablets which will help the travelers to find out what exactly they supposed to explore and what are the places of enjoyment while their visit of several places. Travelography is an application which will help travelers to explore the places of interest nearby along with the detailed information about the place (including how to reach, nearest railway station or airport, history, special attraction, entry cost if any, best time to visit, Rules and regulations if any ,best hotels to stay nearby etc.).This application is focused to have location tracking facility have automated suggestions by the application for making a travel plan.

**Key words:** GPS navigation, Optical character recognition, Pop-up notification

### I. INTRODUCTION

Android is a comprehensive open source platform designed for mobile devices. It is championed by Google and owned by Open Handset Alliance. The goal of the alliances to “accelerate innovation in mobile and offer consumers a richer, less expensive, and better mobile experience.” Android is the vehicle to do so. As such, Android is revolutionizing the mobile space. For the first time, it is a truly open platform that separates the hardware from the software that runs on it. This allows for a much larger number of devices to run the same applications and creates a much richer ecosystem for developers and consumers.

The internet is more and more emerging as a handy tool of traveling for the tourist industry. It presents a perfect platform that brings products and services to the customer. However, web based tourist information system provides not only on-line brochures, but provides both value and service. Information technology is having a big effect on all sectors of tourism.

Tourists have problems to find what they are looking for, especially in reference to the geographic position of the object and its surroundings. In most cases, it is not satisfying to find a nice hotel without a reference to restaurants, sights or event locations located nearby. The study presented in this paper starts from the user needs, to present the tourism object in geographic context on interactive tourist maps supports planning for tourism, focusing on the analysis, decisions making and management using GPS technique and presenting the results on the internet.

There are very few such applications in the market now a day. Travelography will fulfill each and every necessary need of the user in easy and effective way.

The overall working of Travelography is based on Global Positioning System and all the other modules are correlated with GPS for their operations.

#### A. GPS Navigation:

The Global Positioning System (GPS) is space-based satellite navigation.<sup>[1]</sup> System that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.<sup>[2]</sup> The system provides critical capabilities to military, civil, and commercial users around the world. The United States government created the system, maintains it, and makes it freely accessible to anyone with a GPS receiver.<sup>[3]</sup>

The Travelography is embedded with GPS tracking facility. Global Positioning System (GPS) will locate current location of your device and will suggest you the places of interest nearby. It also provided with the route finder facility in which user is aimed to enter the source and destination and the application will help user to select the route as per his comfort from multiple choices. Route finder will provide the directions to navigate from source to destination.



Fig. 1: GPS location finder of Travelography application

### B. Ease of Use:

Travelography will provide you the suggestions of the places i.e. hotels, police stations, malls, cinemas, banks, ATM and the places of interest nearby user within the system defined radius. On selection of the place, the application is enabled to provide detailed information of that place along with its location, address, website, overall ratings on the internet, contact number etc. It will also provide the facility of planning a future plan of user and the remainder alarm facility for the user defined tasks.

## II. EXISTING SYSTEM

The existing system is a tedious work due to manual data handling of records. Manual search is lower and increase the time required for the details. Manual Data handling leads to the wastage of money and time. The speed and accuracy is less in the existing system. There is a chance of occurring manual errors while handling the transactions at the agency.

### A. Disadvantages of Existing System:

- Unable to find detailed information of nearby hotels, restaurants and multiplexes.
- System is not scalable.
- Manual presence of admin required to collect information.
- Unable to show process information on mobiles.
- User cannot search interesting places at they want in that time he/she want.

## III. PROPOSED SYSTEM

The main objective of the proposed system is to overcome the drawbacks in the manual system. Also some modifications have to make it a simple and user friendly. Redundancy and inconsistency problems are completely solved in the proposed system. High speed and accuracy are the main features of the proposed system over the manual system. Some of the interesting and useful features are added to the applications which were rarely seen in any tour guide application.

### A. System Architecture:

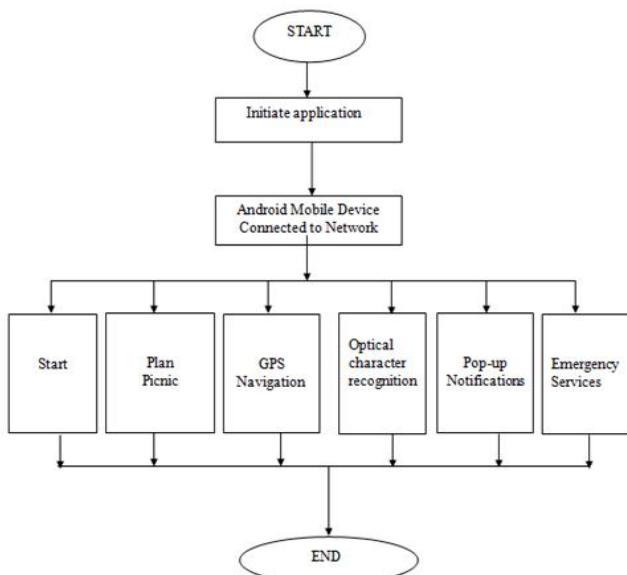


Fig. 2: Flowchart of Travelography modules

Travelography application contains different modules Global Positioning System, Planning a trip, Optical Character recognition [4,5,6,7] , Pop-up notifications [8,9], and Emergency services for safety of user.

### B. Optical Character Recognition:

Optical Character recognition, or OCR, is a technology that enables you to convert different types of documents, such as scanned paper documents, PDF files or images captured by a digital camera into editable and searchable data.

Imagine you've got a paper document - for example, magazine article, brochure, or PDF contract your partner sent to you by email. Obviously, a scanner is not enough to make this information available for editing, say in Microsoft Word. All a scanner can do is create an image or a snapshot of the document that is nothing more than a collection of black and white or color dots, known as a raster image. In order to extract and repurpose data from scanned documents, camera images or image-only PDFs, you need OCR software that would single out letters on the image, put them into words and then - words into sentences, thus enabling you to access and edit the content of the original document.

In Travelography OCR will be the best guide for the tourist who are not familiar with the local language. They often face the problem with the sign boards and symbols placed across the road. In such situation they just have to click the image of the sign board containing the text which is of unknown local language. OCR engine will convert the text into English or subsequent language known to the traveler. OCR engine has different language libraries which does this task of conversion of one language to another.

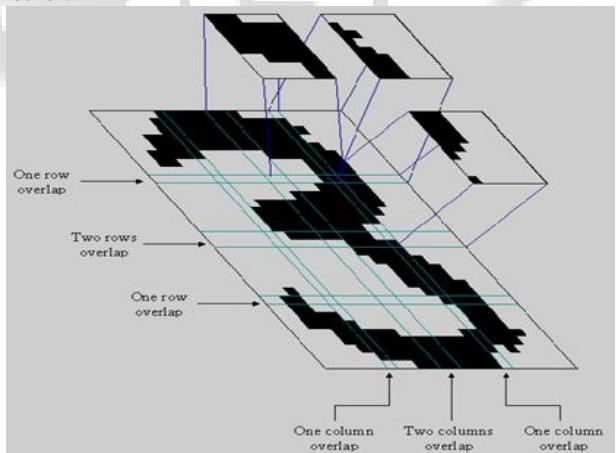


Fig. 3: Implementation of OCR

### C. Pop-Up Notifications:

A method includes receiving an incoming message, parsing the content of the incoming message to identify content of the incoming message; and creating a pop-up notification that depends upon identified content.

The terms Pop-up notifications, toasting, passive pop-ups, desktop notifications, notification bubbles, rustlings, balloon notifications or simply notifications all refer to graphical control element that communicates certain events to the user without forcing them to react to this notification immediately, unlike conventional pop-up windows. Desktop notifications usually disappear automatically after a short amount of time. Often their

content is then stored in some widget that allows the users to access past notifications at a more convenient time.

Travelography aimed at having a user friendly and reactive android application and thus it is embedded with the suggestion facility from the application to the user for his further tour plan. E.g. If it's the time of lunch the application will suggest you the nearest restaurant locations where the user can have lunch.

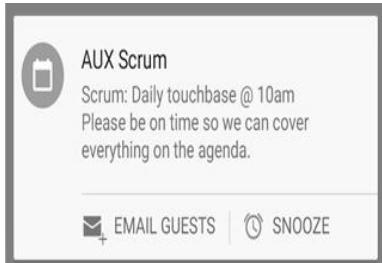


Fig. 4: Example of Action oriented Pop-up notification

#### D. Plan a Picnic:

Picnic planning facility is future estimated service provided by travelography. Users are provided with the facility of planning a trip in advance using application memory along with the date, time and place in a application memory. After successfully saving the plan, user's task is over. The application will work as an alarm and will notify your desired plan with pop-up notification.

#### E. Emergency Calling:

We will never know when disaster will strike, so it is always important to be alert and ready. There are a lot of tips and drills that you can practice and study, but did you know that there are also Android apps which can help you during emergencies and disasters? There are quite a number of apps of this sort in the Google Play Store which are just taken for granted. It's time you check them out. Who knows? They might save your life during those days when earthquakes, tsunamis, storms, robbery, accidents and other calamities strike all of a sudden and without warning.

Thus Travelography is provided with ease of Emergency calling service to hospitals, police stations and also to some of user desired family members.

## IV. RESULT

Travelography is mainly focused on building the fulfilled tour guide application and at the same time fulfilled with customer desired specifications. Travelography can be easily distinguished by its different features as stated below:

- Travelography works efficiently with lower internet speed also along with the help of location service of the device.
- Ease of searching places around us within predefined radius. (Radius is subject to change as per the authority system administrator).
- Categorizing different places viz. hospitals, restaurant, ATM's, temple, airport etc. so that user can easily search the desired location or place.
- Optical character recognition is the key feature provided for the users not familiar with local language.
- Pop-up notifications will never let you miss the opportunities and will keep you updated.

- Emergency calling facility will keep you safe wherever you are with one touch calling facility.
- Route finder facility provided along with GPS navigation.
- Ease of planning a trip with plan a picnic feature.

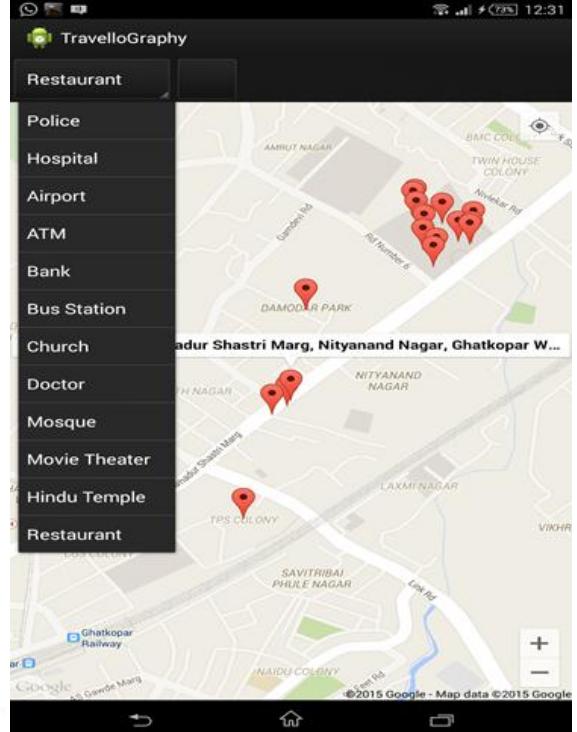


Fig. 5: categorizing of places within the predefined radius.  
Searching for restaurants

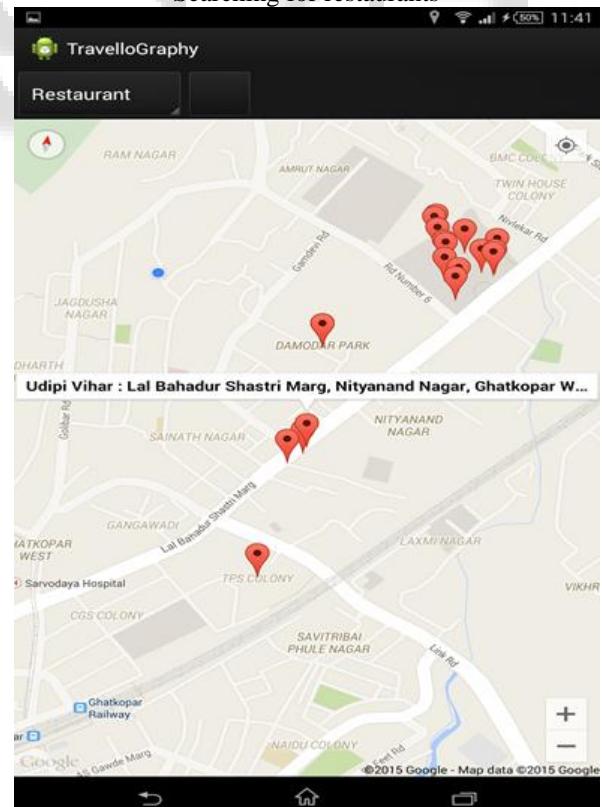


Fig. 6: Selection of option as per user comfort. Short description of the place appear in the dialog box

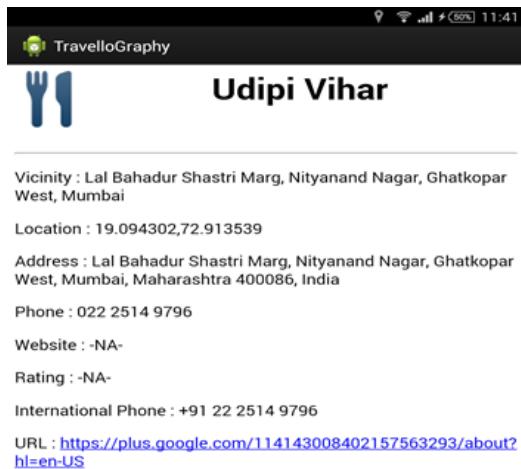


Fig. 7: Detail description of the selected place.

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