Supporting and Enhancing Tourism using Mobile Application

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Abstract

Now-a-day, many android applications support and help users in nearly all sectors. They can solve many problems in our daily lives as much as faster and easier. Obtaining information using mobile phone is not only quick but also convenient for us. In this paper, Android based mobile application is proposed that will serve as a e-tour guide to offer tourism information to users. Users can search and query information for famous places in Bannaw (Kachin State) including hospital, banks, hotels, guest house, restaurants, clinics, shops and so on. Additionally, regional Kachin language to English and Myanmar translation is also provided to solve language barrier of visitors.

1. Introduction

New technology changes structure and behavior of individual person and brings opportunities. As an increasing number of mobile phone users, mobile applications become much influence in not only business domain but also in personal life. According to statistics of tourism industries [1], almost all tourists use smart phones and want to use apps for flight ticket booking, hotel booking, car renting, shopping and visiting and searching places. Many guide books, maps and other things are replaced with interactive mobile applications that can offer many features and functionalities. The tourist wants to search information about travelling over the internet using mobile phone. But some places, the continuous connection is not available and some locations have not an internet coverage. Therefore, developing a stand-alone application that would be installed over the mobile device was a good solution. This encourages developer to emerge E-Guide proposed architecture of mobile tourist guide system for android mobile phones that is able to give tourism information to the mobile users conveniently [2]. With respect to these, we intended to develop Android based tour guide system that can serve not only as a city directory but also as an e-tourist guide using MySQL and Android Programming.

1.1. Problem Statements

Research suggested that 10% of adults do not want to travel abroad due to language barrier [3]. Language barriers is important obstacle to communication and can affect tourists’ choice of places. It is needed to effort to overcome language barrier between tourist and native people. Another problem is that most tourist guides are not good at regional language and knowledge that can degrade tourism. Some guides cannot quickly know detail information of specified city in a few minutes.

Sometime, finding and inquiring required places take a long time and can make loss of tolerance. In our country, smart city directory is also scarce. For all above reasons, we should enhance tourism that can directly affect our country income statements and should develop a smart application that can solve for these problems.

1.2. Objectives

The main objectives of this system are to contribute regional project that is beneficial for not only tourists but also local people, to be convenient for travelers who are visiting to Kachin State, to help Kachin people from the corner in order to preserve their language and regional information in mobile phone and to support the learner to be more efficient in learning languages.

2. Propose System Architecture

The proposed system is an Android application that is designed and developed using basic 4 Android (B4A) and MySQL database. Basic4Android is one of the very best options if you want to make an Android application quickly. It is a good tool for beginners and for creating cross-platform applications [4]. There are four main parts in the application and system flow diagram is shown in Figure 1.

![System flow diagram of proposed system](image)

Figure 1. System flow diagram of proposed system
2.1. Methodology of Proposed System

In this paper, the design and implementation of android application for Banmaw directory was mainly presented. The proposed system is developed by using android based system and Basic 4 Android is used to develop it. Basic4Android (currently known as B4A) is a rapid application development tool for native Android applications, developed and marketed by Anywhere Software Ltd [5].

Phone library objects are used to handle all kinds of phone events: phone call, sending SMS messages and son on. As a backend technology, SQLite database is used [6] and SQLite query methods are applied to search and query city information.

Moreover, the proposed system also integrated with current technology: Google Map to localize and search required places. It offers satellite imagery, aerial photography, street maps, 360° interactive panoramic views of streets (Street View), real-time traffic conditions, and route planning for traveling by foot, car, bicycle and air (in beta), or public transportation [7].

2.2. System Functionalities

The functionality of proposed system can be described into four main parts.

(a) User can view desired categories that are organized into same features. For example, if he wants to view and search about hotel, he must click Hotels icon that has different types of hotel information such as hotel name, location, street, phone number in Banmaw. The system provides phone call and SMS service to users. User can call selected place’s phone number and even send SMS message.

(b) The system also connected with google map services and user can search interested places according to google map.

(c) The other function that system provided is that usage of language tool. In order to solve language barrier of traveler, the application supports translation among three main languages: English, Myanmar and Kachin languages.

3. System Working Models

The main page consists of three main layouts, Home, Category and Emergency. Home page displays fourteen categories as shown in Figure 2.

3.1. View and Search Contacts

User can search and view specified category. If user clicked selected category from main page, the detailed contacts will be seen as the following in Figure 3. In Figure 3, furniture store lists in Banmaw are shown. User can select from shown lists and view quarter, street and phone number of this place. He can call phone and also can send SMS message that is shown in Figure 4.
3.2. Google Map Service

Tourism guide application get service from Google map to show map and calculate distance of two places (e.g. KBZ bank and Paradise Hotel).

3.3. Language Tool

The proposed app support three kinds of language in order to be convenient to travelers who are visiting to Kachin state. If user click to Language Tool in home page, there are two parts in this application, Myanmar-Kachin-English and English-Kachin-Myanmar that are shown in Figure 6. In Myanmar-Kachin-English, the selected Myanmar sentence is translated into corresponding Kachin and English sentence as in Figure 7. In English-Kachin-Myanmar, the selected English sentence is translated into corresponding Kachin and Myanmar sentence as in Figure 8. The sound file of corresponding Kachin sentence is also provided to support the learner. In this application, the most frequently spoken words are presented into sixteen sections. This application contributes to the regional project that help not only local people in Kachin state but also visitors who travels to Kachin state.
Moreover, this application supports to learn three languages easily using portable device to solve language barrier between traveler and local people. That can be beneficial for both traveler and local people because common usage of regional languages is saved in this application that can keep their own language not to happen language mix and disappearance.

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References

[6] https://www.sqlite.org/about.html

4. Conclusion

Considering traveler’s needs and enhancing tourism transportation, the Android based smart city directory is developed. By using this application, traveler who are visiting to Banmaw city will easily and quickly get the desired traveling information within a few minutes.