Mobile Based Travel Guide System

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Introduction

Mobile phones have become a simple and common commodity while these devices can facilitate travel guidance due to their effectiveness and straightforwardness (Baus,*et al.*,2005). Mobile phones based travel guiding is promising to become the best-targeted guiding medium that offers fresh ways to their end users. Compared to the global mobile travel guide system context (Hinze and Junmanee, 2006), there's less development of such solutions locally. Therefore 'Travel Advisor' can be considered as an effective local solution for travelers. 'Travel Advisor' is mobile based travel guide system which was fully built using Java 2 Platform, Micro Edition (J2ME) and java library (Knudsen and Sing, 2005) for sending and receiving short service messages(SMS).

Methodology

The whole system is composed of three main modules; Mobile Application Design Module, Database Design Module and Web Application Design Module.

The mobile application design module contains the user interface which consists of several screens organized according to the user preferences. This module also handles the message manipulation and data retrieval unit Global System for Mobile, (GSM) modem processes.

Database design module has the database handlings corresponding to the user requests.

All the data that need to be accessed are stored in the database. As this is the dominant component in the system, a remote database server is used to replicate these data in case of data corruption in the administrator's local database.

Web application design module contains the web interface for a user (User Space) and Administrator (Admin Space) where the 'User Space' provides an online access to the Travel Advisor System resources and basic information. The 'Admin Space' provides an admin control panel for users with the administrator privileges.

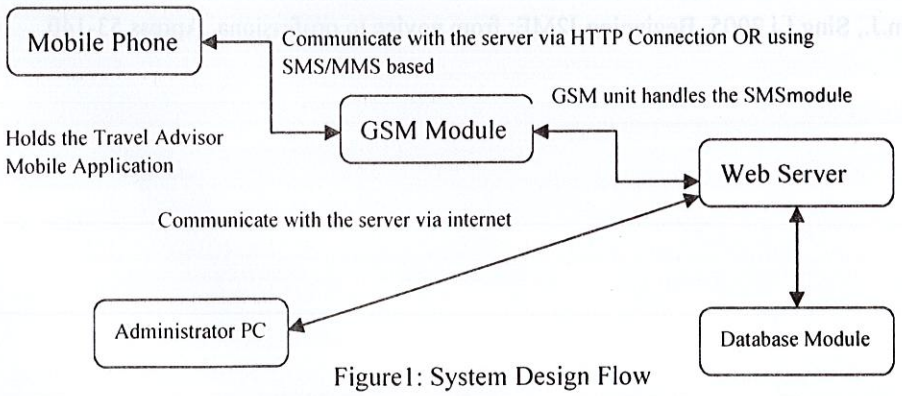

Figure1: System Design Flow

Results and Discussion

The Mobile Application, Web Interfaces, the Database and the GSM module were successfully implemented and tested.

The resulted system provides an effective and straightforward method for travel guidance via a mobile phone. By using this application, the user can access the required information directly through a set of user friendly interface. 'Travel Advisor' facilitates both SMS and GPRS communication in order to access data. The web interface provides online user access to the Mobile application user's guide and the application download facility as well as the adminstrator control page for the web site and data maintenance processes.

This application can also be considered as a Mobile City Guide which will guide you locally as you travel or as you plan to travel.

Though initially this system was fully developed using Java technologies, this design can be converted into several other mobile development frameworks such as Android, etc.

Conclusion

'Travel Advisor' system is an effective asset to the travelers with mobile phones. Though this application is created using basic mobile development framework, it provides a comparative advantage to the end user. During the development of the system, we found an opportunity to extend research within J2ME (as some functionalities assumed to be available in the J2ME compact framework were not present). Therefore, this design may be adopted into new mobile development technologies which will provide enhanced facilities to the end users.

References

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