

Erbil Guide Application

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ABSTRACT:

In this paper, a mobile application for navigation system via GSM has been designed. This application is used to search for hotels, restaurants and tourism places in Kurdistan-Iraq. This application help users to find any information about tourist attractions and archaeological and their geographical locations and how to reach them as well as information about hotels, their geographical location and how reach them, the same case for restaurants. In the past it wasn't easy to get this information, and even now, without the use of such applications, it will be difficult for tourists to get such information. The advantage of using this application it helps the users to develop a plan and budget for their trip or visit. The second advantage backs to the hotels and restaurants in which they get an advertisement with low prices throughout the year.

KEYWORDS: mobile technology, Global system for mobile (GSM), geographical location, smart phone, mobile application, windows phone,

I. INTRODUCTION

We now live in the digital age and the information revolution age, what we know to some extent this moment that the technological development and the information revolution brought about great strides in the lives of the people , it has become very easy to get information, by push a button we can get any information at any time we want, the impact of these developments on the field of communication between humans are very big, it has become very easy to communicate with anyone by audio, image, and video even if we live in two different places and away from each other in two different cities or countries, or even continents , Since the invention of the computer at the end of the forties and early fifties of the last century brought about changes and developments are significant in different areas of human life, and one of these fields are mobile phones or cellular. The first mobile phone was produced in the beginning of the seventies The goal of it is the possibility of make a communication of any location in the world to any location in the world without wires, but after thirty years and at the present time mobile phones have become more than just a means of communication it has evolved in the fields of hardware and software, in terms of hardware it has become a great potential of great ability on photography and high accuracy.[1]

technology Development in wireless communication offer the users to access any information and network resource at any time and at any where access to any information and any network resources without restricting them to the fixed network infrastructure. Mobility introduces new challenges as several assumptions made regarding distributed networks that are no longer valid. Many of the research issues regarding wireless networks and mobile computing are not new, for they have been discussed in the context of distributed systems.[2]

II. MOBILE OPERATING SYSTEM.

Referred to as mobile OS, it is the operating system that operates a smart phone, tablet, PDA, or other digital mobile devices. Modern mobile operating systems combine the features of a personal computer operating system with a touch screen, cellular, Bluetooth, Wi-Fi, GPS mobile navigation, camera, video camera, speech recognition, voice recorder, music player, near field communication, Infrared Blaster, and other features.[3]

2-1 Windows Phone Operating System (abbreviated as WP)

It is a series of mobile operating systems developed by Microsoft, and is the successor to its Windows Mobile platform although incompatible with it. Unlike its predecessor, it is primarily aimed at the consumer market rather than the enterprise market. It was first launched in October 2010, with a release in Asia following in early 2011. The latest release of Windows Phone is Windows Phone 8, which has been available to consumers since October 29, 2012. For Windows Phone,

Microsoft created a new user interface, featuring its design language called the Modern design language. Additionally, the software is integrated with third party services, Microsoft services, and sets minimum requirements for the hardware on which it runs. Microsoft is currently developing the next version of Windows Phone, codenamed "Windows Phone Blue" (previously "Windows Phone Apollo Plus") which will either be named Windows Phone 8.1 or Windows Phone 9. [3]

2-2 mobile application (or mobile app)

Is a software application designed to run on smart phones, tablet computers and other mobile devices. They are usually available through application distribution platforms, which are typically operated by the owner of the mobile operating system, such as the Apple App Store, Google Play, Windows Phone Store, and BlackBerry App World. Some apps are free, while others must be bought. Usually, they are downloaded from the platform to a target device, such as an iPhone, BlackBerry, Android phone or Windows Phone, but sometimes they can be downloaded to laptops or desktops. For apps with a price, generally a percentage, 20-30%, goes to the distribution provider (such as iTunes), and the rest goes to the producer of the app. [3]

III. THE TOOLS OF THIS APPLICATION

- [1] Environment Visual Studio 2010 for Windows Mobile iPhone developed by Microsoft Corporation [4]: Visual Studio Express 2010 for Windows Phone is a complete development environment for creating Windows Phone apps. Visual Studio Express 2010 for Windows Phone includes development features such as Windows Phone project templates, a code editor, a Windows Phone-based visual designer, and a Toolbox that contains Windows Phone controls. It also includes integrated testing features such as simulation, monitoring and profiling, and the Windows Phone Store Test Kit. With Visual Studio Express 2010 for Windows Phone, you can debug and deploy your apps on Windows Phone Emulator or a Windows Phone device.
- [2] C Sharp programming language developed by Microsoft Corporation [3]: is a multi-paradigm programming language encompassing strong typing, imperative, declarative, functional, procedural, generic, object-oriented (class-based), and component-oriented programming disciplines. It was developed by Microsoft within its .NET initiative and later approved as a standard by Ecma (ECMA-334) and ISO (ISO/IEC 23270:2006). C# is one of the programming languages designed for the Common Language Infrastructure. C# is intended to be a simple, modern, general purpose, object-oriented programming language. Its development team is led by Anders Hejlsberg.
- [3] Database MySQL [3]: the world's most widely used open source relational database management system (RDBMS) that runs as a server providing multi-user access to a number of databases. It is named after co-founder Michael Widenius' daughter, my. The SQL phrase stands for Structured Query Language.
- [4] Local the server and Wampserver [5]: WampServer is a Windows web development environment. It allows you to create web applications with Apache2, PHP and a MySQL database. Alongside, PhpMyAdmin allows you to manage easily your databases.
- [5] Google Maps [3]: is a web mapping service application and technology provided by Google, that powers many map-based services, including the Google Maps website, Google Ride Finder, Google Transit, and maps embedded on third-party websites via the Google Maps API [3]. It offers street maps, a route planner for traveling by foot, car, bike (beta), or with public transportation and a locator for urban businesses in numerous countries around the world. Google Maps satellite images are not updated in real time, but rather they are several months or years old.

IV. PROPOSED SYSTEM

The application consists of five sections that shown in the figure 1

- a) The hotels department.
- b) The restaurants department.
- c) The tourist areas in the city of Erbil department.
- d) The archeological sites in the city of Erbil department.
- e) The service department.

There is important note to be mention here is that this application that is available to the users has access to the Internet in order to be able to linked to the application database that consist of the names of hotels and restaurants and information available to them and also he could occupy Google maps that need the availability of the Internet. figure (1) represent all the sections of the application. In the following we will explain the function of each section of the application with some details..



Figure-1- Home

- a) Hotels Department : This section of the application dedicated to finding hotels within the city of Erbil, depending on the prices of hotels, which gives the information needed by anyone who wants to book at any hotel when the user presses the (hotels) icon.



Figure-2- Hotels Icon

By selecting the hotel icon it will move the application to the next page for looking about Hotels as shown in figure-3-The application user writes the price of hotel per night in the text box then click search, the system list the name of all hotels that price are less or equal to the price that the user entered . In the same page the user can list the names of all hotel in erbil city by selecting the (list of Hotels in Erbil) button.

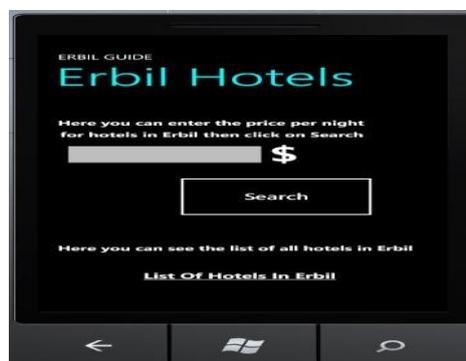


Figure-3- search for hotel

when the user presses the button is induction will move the application to the Next page which show the names of all the hotels as shown in figure -4- ,and then the user choose and click on the name of hotel he want, then the system will move to the next page of the application, which gives all the information needed about the selected hotel by the user as in figure-5-



Figure-4- list of hotel



Figure-5-information of hotel

there are two information about location property , the longitude and latitude of the globe and the No. of hotel in order to help the user to contact them either for reservation or to inquire them by phone number or by e-mail address of the hotel, and also there is a Website for the on the Internet and there are also the command button (map) at the top of the application next to the image when the user presses it, it will show the location of the hotel on the map as in figure-6-

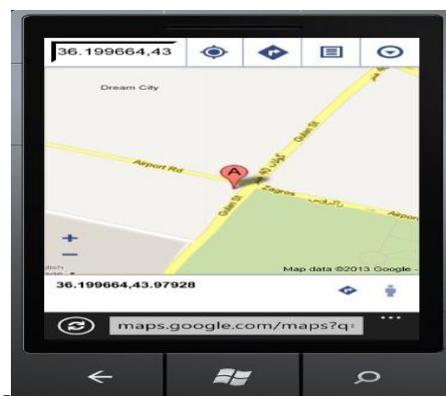


Figure-6- latitude and longitude of the hotels

b) Restaurants Department: This section of the application, dedicated to finding restaurants within the city of Erbil, depending on the number of stars that enjoyed by the restaurant .when the user clicks on the icon restaurants as in figure-7-the system gives all the information needed for the user



Figure-7- icon restaurants

- c) Tourist places in the Erbil city Department: This section of the application dedicated to show the tourist places located in the city of Erbil . when the user presses the places tourism icon as shown in figure-8- it will move the application to the next page, which shows a list of places of tourist located in the city of Erbil and all information about each place.



Figure-8- icon places tourism

- d) Archeological sites in the city of Erbil department : This section of the application dedicated to show the archaeological sites located in the city of Erbil by showing a list of all these places when the user presses the icon Archeological as in figure-9-



Figure-9- icon Archeological

Then the application move to the next page, which shows the list of all places of archaeological located in the city of Erbil that shown in figure-10-



Figure-10-list of city in Erbil

and when the user chooses the place by simply pressing on the name of the place the system will move to the next page, which gives the user a range of information about the selected place as in figure-11-

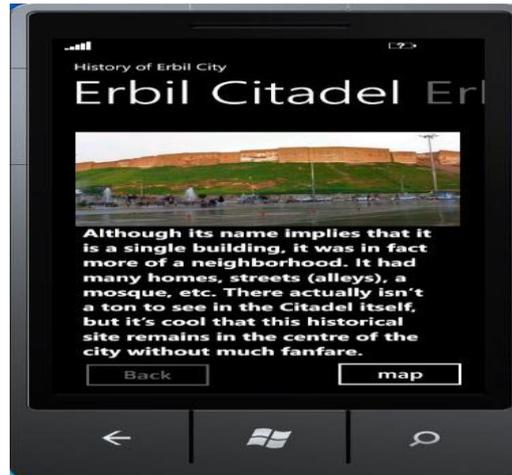


Figure-11- site archaeological

- e) Services department : This section is intended to give information on some commercial premises in the city of Erbil and also gives phone numbers of some government services as the number of police and hospital number when the user clicks on the icon services as in figure-12-



Figure-12- icon Services

V. CONCLUSION

- [1] The cost of the application is less than the navigator that produce by the tourism because it only needed to download the application and it's free.
- [2] turning Mobile both its hardware and software and systems operation and applications to become more than just a means of communication as it was before for more than a decade . At the present time it communicate between peoples and even it is entertain him and facilitate their lives in many fields of life . At the level of developer and working groups in the field of mobiles it has opened new horizons and promising opportunity to work and improve the standard of living of the lowest costs in countries where there are no use in the field of infrastructure.
- [3] The system don't need any external hardware like pc or laptop with Wi-Fi for search of any location
- [4] The system don't need any wireless coverage to connect to the internet
- [5] The speed of the proposal system is faster than using wifi or internet.

REFERENCES

- [1.] <http://www.unlimit-tech.com>
- [2.] Mazliza O.,Fakulti S. K. &Teknologi M “Mobile Computing and Communications: An Introduction” Malaysian Journal of Computer Science, Vol. 12 No.2, December 1999.
- [3.] <http://en.wikipedia.org/>
- [4.] <http://msdn.microsoft.com/>
- [5.] <http://www.wampserver.com/>