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Interactive Database System

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Abstract - With the revolution in the technology and lifestyle of human race, the need of easy life and faster result in the need of an hour. Due to complex life and fast growing technology it is always desired to obtain results for any query, problem or requirement with the speed of light. Only technology can satisfy human today and hence objective of the project is to design an Interactive Database System on a remote device, where the end-user can edit, search, manipulate and acquire relevant information from the database using predefined SMS formats. The aim of the project is to develop a server PC, which is equipped with two programming tools, namely, Visual Basic at the front end for implementing the behavior of the entire system and developing GUI and SQL server at the backend for maintaining the entire system's database.

I. INTRODUCTION

Technology has given the world a new way of living a lavish and refined lifestyle which is fast, furious and growing rapidly in the positive direction. Time is playing an important factor in life where we need to get things right, at the right time and at the right place. Technology is today the solution for satisfy the human race...E.g. when we go to a mall, we have a certain thing which we wish to buy. But when we actually enter a mall we have no idea as to where we would find that thing. So it was necessary to obtain a simple but innovative solution for this problem. Hence a module IDS which is nothing but a device which is a user created interactive database is proposed in this design. This database is created by the shopkeepers in the mall. This database is made available to the customers via IDS system. So as soon as the customer enters the mall he can just type the product he wishes to buy and immediately the location from where he can buy the same will be provided to him. If the product is not available in the mall then accordingly a message will be sent to him that would save him time and energy. Though the above example is very specific; IDS has wide application in almost every field. It is a device which will actually hold the local information whatever it may be at one place. But in general it is designed such that any information which a user wishes to share within the area of IDS can be made available to all the users. This system can be implemented largely because in present times cell phones have become common and are owned by almost every individual. The system proposed is as good as a local Google search where a set of data is

stored and can be shared by the entire user in the vicinity of the system.

II. SIMILAR PROJECTS RELATED TO IDS SYSTEM

A. Dead drops

Dead Drops is an anonymous, offline, peer to peer file sharing network in public space. USB drives are embedded in walls, buildings, concrete structures which are openly available to the public .Everyone is invited to drop or find files on a dead drop. Plug your laptop to a wall, house or pole to share your favorite files and data.

B. The pirate box

It is a consumer-oriented seed box. A seed box is a private dedicated server used for the uploading and downloading of digital files. The seed box makes use of the Bit torrent protocol for uploading and downloading data. They are connected to very high speed networks, with a throughput of 2x1000 Mbps. Files are uploaded to a seed box from other Bit Torrent users, and from there they can be downloaded at high speeds to your personal computer via the HTTP or FTP protocols. The seed boxes on high speed networks are typically able to download large files within minutes. A 1 GB file can take less than five minutes to download. That same 1 GB file can be uploaded to other users in the same amount of time, creating a 1:1 or better upload/download ratio for that individual file. The seed box supports high speed data transfer. Because of the mentioned high speeds, seed boxes tend to be extremely

popular inside private torrent trackers, where maintaining a download/upload ratio above 1 is very important. These seed boxes also serve as a kind of proxy, because a user's actual IP address is not shown, the server's one being shown instead.

The IDS system developed on similar lines is as shown in the figure (1). The main principle of this module is that there is a collection of set of information and these information can be exchanged between the server and the user using secured link. This project is a unique combination of hardware and software where algorithm is defined to interaction between the hardware and software. VB is used as a software tool and GSM module as the hardware component. The architecture is very simple and technically well defined to give optimum performance. Currently the range of the module is restricted to a small area but can be easily expanded in the future.

III. PROPOSED IDS SYSTEM

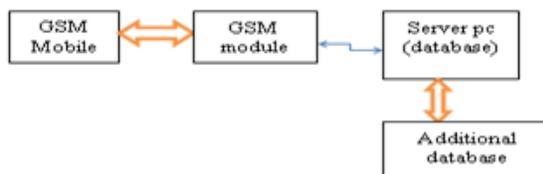


Fig. 1: Proposed IDS system Block Diagram.

The IDS system consists of in all 4 modules.

1. GSM mobile-This is the cellular phone with the end user which can access the data stored in the as well as interact with the GSM module with the help of a wireless link.
2. GSM module-it is capable of responding to the GSM mobile for any request sent to it.
3. Server PC-It is the heart of the entire system which regulates the entire operation. It consists of the data base of the particular place. It can be updated by specific authenticated user to keep the data stored updated to the latest information. It can also be designed to monitor all the real time operation taking place at any instance.
4. Additional database-it consist of important information like secured codes, password etc which can retrieved back in case of power failure or loss of memory for the PC.

IV. SOFTWARE COMPONENT OF THE SYSTEM

A. Visual basics 6.0

VISUAL BASIC is a high level programming

language which evolved from the earlier DOS version called BASIC. Different software companies produced different versions of BASIC, such as Microsoft QBASIC, QUICKBASIC, GWBASIC and IBM BASICA and so on. However, people prefer to use Microsoft Visual Basic today, as it is a well developed programming language and supporting resources are available everywhere. We also have VB.net, VB2005, VB2008 and the latest VB2010. Both Vb2008 and VB2010 are fully object oriented programming (OOP) language.

VISUAL BASIC is a VISUAL and events driven Programming Language. These are the main divergence from the old BASIC. In BASIC, programming is done in a text-only environment and the program is executed sequentially. In VB, programming is done in a graphical environment. In the old BASIC, we to write program code for each graphical object we wish to display it on screen, including its position and its color. However, In VB, we just need to drag and drop any graphical object anywhere on the form, and we can change its color any time using the properties windows.

On the other hand, because the user may click on certain object randomly, so each object has to be programmed independently so as respond to those actions (events). Therefore, a VB Program is made up of many subprograms, each has its own program code, and each can be executed independently and at the same time each can be linked together in one way or another. SQL Server is one of the most popular and advanced database systems currently available. SQL Server is provided by Microsoft. Microsoft SQL Server is sometimes called as "Sequel Server". It can be managed using Structured Query Language.

While MS Access is meant for small applications, SQL Server supports large applications with millions of users or huge databases. SQL Server is also compatible with MS Access. It is easy to exchange data between these two. SQL Server is a Relational database where data is stored and retrieved very efficiently.

B. SMS Requirements and Tools

Short Message Service is the ability to send and receive short alphanumeric messages to and from mobile telephones. SMS is also capable of caring binary payloads.

SMS plays an integral part of the Project since the whole system will receive commands from user, and respond to the same, using SMS facility. In every GSM Modules and handsets, AT commands plays a very important role. These commands are infact used to send, receive, delete the SMS's and also perform other useful tasks.

V. CURRENT APPLICATION

IDS can be used in the various applications like malls, amusement parks etc. store the database of the products, location etc. Secondly we can also be used in IDS in colleges to store the record of the college students, professors, staff, classrooms, laboratories, hospitals etc. IDS can also be used in industries so as to maintain the record of the employees, their designations, salaries etc in the database. It can also store the locations and maps of any particular region in its database and can also record the directions and landmarks leading us to the region and the general information related to the region.

VI. FUTURE SCOPE

The IDS system can be integrated with the internet system to make access available from any place in the world which will definitely make this system a very useful and powerful technology for the future.

VII. ACKNOWLEDGMENT

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