

EASE: Effective Advanced Search Engine for Android Mobiles

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Abstract: Mobile device interaction with users is now done for many purposes such as making calls/SMS, location service, road map, traffic information, etc and it also helps user connect to the search engines. But the search query is limited in case of mobile device due to small screen and limited spaces available for typing querying. Unlike those used when interacting with search engines through computers. As result of this user is not able to get the exact information which is expected on the mobile devices. Using the concept of GPS it helps the user even to search the information while the user is moving from one place to another, thus helping in location based. It also helps the user search according to their preferences. Hence the proposed solution aids in better and faster result retrieval from querying search engine through mobile by giving the user to search the information based on two key concepts i.e. Location and Content Based search results from the mobile.

Keywords: GPS, Mobile devices, Location & Content Based Search.

I. INTRODUCTION

Now a days as the technology is evolving day by day, the life of humans is getting more and easier. As a result of this humans want all things very easily and very fast. For example, if users want to search any college or restaurant or may have various choices to search information, but as compared to windows based and mobile devices there is a lot of difference. Means in windows (Computer) user will have a big screen to search but in mobile based screen is limited. Mobile search is nowadays more effective way of searching information which is rapidly gaining popularity as it provides information retrieval services that is based on the convergence of various mobile platforms and mobile phones, or that it can also be used to tell information about something and other mobile devices. Mobile search is an evolving branch of information retrieval services that is centered on the convergence of mobile platforms and mobile phones, or that it can be used to tell information about something and other mobile devices. Thus to improve the efficiency for searching the information it important to know exactly user wants and also help the user to search exactly what the user wants.

II. RELATED WORK

Now a days most of the search engine are providing results according to what users want, but although results are not exactly given to the user. This is one of the major drawback of the various mobile based search engines. Although the users click through data is been used in order to maintain the detail of the user profile and also ranking is of the user profile is done. PMSE is one of the pervious such type of work which uses the same concept of the searching the user results which the user want. It also uses the concept of location and content based searching of results. But PMSE uses the concept of Ontology for content based searching of results. For example, if user searches "Apple" the result might come for Fruit Apple and also for the Apple Company mobile phones.

So it becomes necessary for the search engine to know exactly what the user wants to search and give the result of the query fired by the user.

III. PROPOSED SYSTEM

We construct a Mobile based search engine on android platform which provides optimized search results. The following modules are included.

System Modules

- 1) Personalization of user profile
- 2) Capturing users click through data
- 3) Profiling users interest

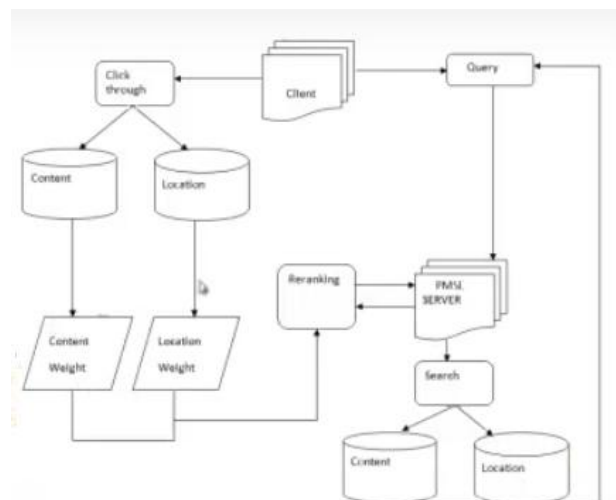


Fig: System Architecture

In the first module each user has a personal user id and password to login into the account.

In the second module users click through data is captured considering the search entries that the user wants to enter.

In the third module we provide a system that will profile users' interest based on his search results and that profiled data is further used to provide the user with an effective, optimized result later on.

IV. PROPOSED METHODOLOGY

The proposed methodology includes software requirements and algorithm used to implement proposed system.

A. Software Requirement:

MySQL

Android SDK

Eclipse

WAMP Server

Java

Backend: MySQL

In this for storing data MySQL is the backend and platform required for this is WAMP. For Android development Eclipse is the platform and the Android software development kit is used. By using that Android application is developed. Now, for Location based information's there is need of GPS (Geo graphical positioning system).

1) Android SDK: The Android Software Development Kit is provided by Google and allows developers to use important Google resources such as the Android code library, GPS system, Google map, and media, database, and user interface components. Specially, Android SDK provides the Location Manager class (included in android location library) which provide functionality to manipulate the GPS data.

2) GPS (Global Positioning System): The Global Positioning System (GPS) is a satellite-based navigation system made up of a network of 24 satellites placed into orbit. GPS works in any weather conditions, anywhere in the world, 24 hours a day. Essentially, the GPS receiver compares the time, that a signal was transmitted by a satellite, with the time it was received.

ECLIPSE:

Eclipse is a multi-language software development environment comprising an integrated development environment (IDE) and an extensible plug-in system. It is written mostly in Java and can be used to develop applications in Java and, by means of various plug-ins, other programming languages including Ada, C, C++, COBOL, Perl, PHP, Python, R, Ruby (including Ruby on Rails framework), Scala, Clojure, Groovy and Scheme. It can also be used to develop packages for the software Mathematica. The IDE is often called Eclipse ADT (Ada Development Toolkit) for Ada, Eclipse CDT for C/C++, Eclipse JDT for Java, and Eclipse PDT for PHP.

PHP:

PHP is a general-purpose server-side scripting language originally designed for web development to produce dynamic web pages.

For this purpose, PHP code is embedded into the HTML source document and interpreted by a web server with a PHP processor module, which generates the web page document. It also has evolved to include a command-line interface capability and can be used in standalone graphical applications. PHP can be deployed on most web servers and as a standalone interpreter, on almost every operating system and platform free of charge. A competitor to Microsoft Active Server Pages (ASP) server-side script engine and similar languages, PHP is installed on more than 20 million websites and 1 million web servers.

PHP was originally created by **Rasmus Lerdorof** in **1995**. The main implementation of PHP is now produced by The PHP Group and serves as the de facto standard for PHP as there is no formal specification. PHP is free software released under the PHP License which is incompatible with the GNU General Public License (GPL) due to restrictions on the usage of the term PHP. PHP stands for **PHP: Hypertext Preprocessor**. It is a server-side scripting language, like ASP. It scripts are executed on the server. PHP supports many databases (MySQL, Informix, Oracle, Sybase, Solid, Postgre SQL, Generic ODBC, etc.). It is an open source software. PHP is free to download and use. PHP files can contain text, HTML tags and scripts. PHP files are returned to the browser as plain HTML. PHP files have a file extension of ".php", ".php3", or ".phtml". Being a server-side scripting language PHP runs on the web server, unlike the client-side languages which run on the web browser, and gives you a lot of possibilities other programming languages cannot.

WAMP SERVER:

WampServer is a Windows web development environment. It allows you to create web applications with Apache, PHP and the MySQL database. It also comes with PHPMyAdmin to easily manage your databases. WampServer installs automatically (installer), and its usage is very intuitive. You will be able to tune your server without even touching the setting files. WampServer is the only packaged solution that will allow you to reproduce your production server. Once WampServer is installed, you have the possibility to add as many Apache, MySQL and PHP releases as you want. WampServer also has a tray icon to manage your server and its settings.

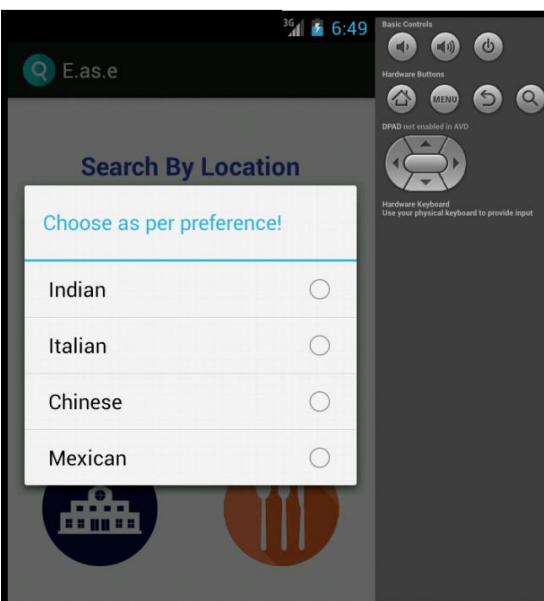
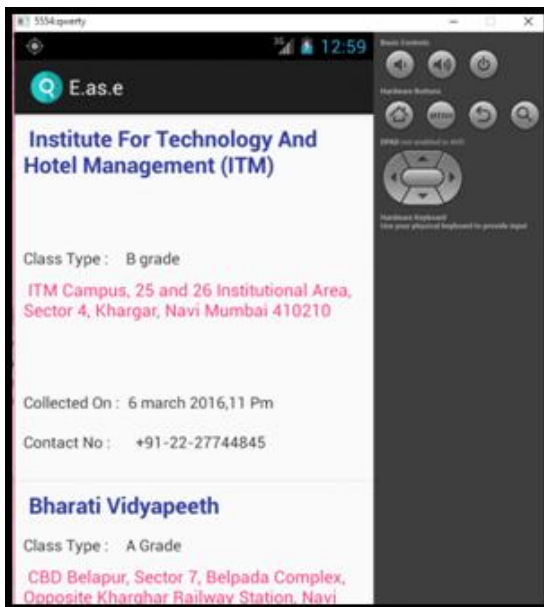
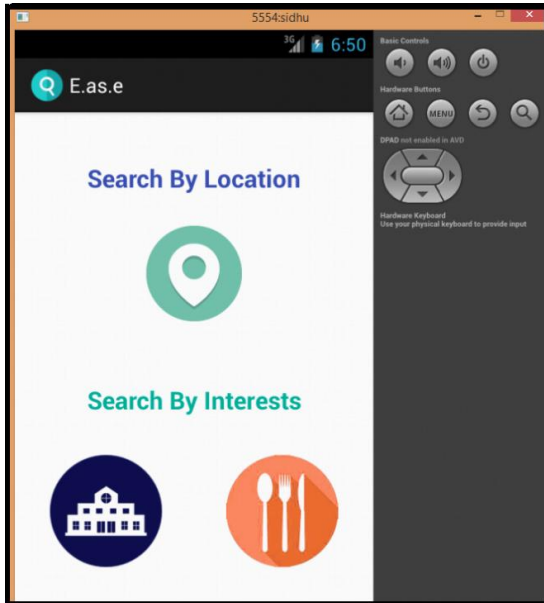
V. EXPERIMENTAL ANALYSIS

1. Searching results according to Location Based for Colleges:-

This is done with the help of the GPS, which will help the user to search information even while the user is moving from various places

2. Searching results according to user preferences:-

This helps the user to search information according to the various preference. For Example, if users want to search Hotel based on the type of food available such as Indian, Italian, Chinese, Mexican.



VI. CONCLUSION

In this paper we have proposed EASE to extract and learn a user’s content and location preferences based on the user’s history. To adapt to the user mobility, we incorporated the user’s GPS locations in the personalization process. This will help the user even to search information will the user is moving from one place to another with the help of GPS. We observed that GPS locations help to improve retrieval effectiveness, especially for location queries. To exploit regular travel patterns and query patterns from the GPS the proposed personalized mobile search engine is an innovative approach for personalizing web search results. By mining content and location concepts for user profiling, it utilizes both the content and location preferences to personalize search results for a user. The results show that GPS location helps improve retrieval effectiveness for location queries (i.e., queries that retrieve lots of location information).

REFERENCES

- [1]. E. Agichtein, E. Brill, and S. Dumais, “Improving Web Search Ranking by Incorporating User Behavior Information,” Proc. 29th Ann. Int’l ACM SIGIR Conf. Research and Development in Information Retrieval (SIGIR), 2006.
- [2]. K.W.-T. Leung, D.L. Lee, and W.-C. Lee, “Personalized Web Search with Location Preferences,” Proc. IEEE Int’l Conf. Data Mining (ICDE), 2010.
- [3]. Fang Liu, Clement Yu, and Weiyi Meng (2004) “Personalized Web Search for Improving Retrieval Effectiveness” IEEE Trans. Knowledge and Data Eng., Vol. 16, No. 1
- [4]. [1] K.W. T.Leung, D.L. Lee, and W.C. Lee (2010) “Personalized Web Search with Location Preferences,” Proc. IEEE Int’l Conf. Data Mining (ICDE).
- [5]. http://www.ijarce.com/upload/2014/january/IJARCCET7G_A_Vijayalakshmi_Personalized.pdf