Web Ranking and Rating Server Usng Web Service

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Abstract

The amount of information on the web is growing rapidly and number of web sites becomes huge, so set of web applications used to help user and give him some information about these sites, especially in e- business, news and sites introduce services.

Since Web site is built by comparatively free description, it is difficult to perform absolute evaluation. So, rating of Web site is performed from various viewpoints.

In this paper we proposed method for ranking and rating using the web service and java script to motivation remote server and return some public information to the site user and other private information to owner.

Keyword: Web ranking, Web rating, Web service, Website traffic.

Introduction

The World Wide Web is a vast source of information which grows bigger at exponential speed. Indeed more than 7 million pages are added to the Web each day (study of Cyveillance in Washington). The search engines must thus continuously adapt in order to follow this unrestrained rhythm and not to take delay in the indexing of all these new pages. They must also obtain effective criteria in order to select in this vastness of the best data and to present the search results in a relevant order [1].

The problem is Web pages Proliferate free of quality control and very low publishing cost [2].

In most of search engines, the page is a basic processing unit. However, it may not be that appropriate for some functions (e.g. ranking). many web site may be agreed the search query but no information about the web site and the reliability and the opinion of person who work with web site specially in news, e-business and any web site that produced service even services is free, some person need try, if service is free but the other needs reliable, but if pay all need reliable web site and see the opinion of user from same website or in neutral web site.

For that the list of the top web sites and comparison between companies that introduce the same services is one of the most useful statistics to be extracted from ranking and the reliability comes from ranking and rating.

And many web applications used that like recommender system for web, e-commerce become famous [1].

Website Ranking Methods

Internet or e-business authorities employed many different methods to rank websites [2]. These methods may be grouped into 3 categories: activity-based criteria, reference-based criteria, and opinion-based criteria.

Activity-based criteria, also known as traffic-based ranking, are the best known among the three. It is usually regarded as the most objective method. Here, websites are ranked according to the amount of activities that take place on the site. The web site that attracts the most traffic or has the highest usage would rank at the top. Examples of this approach include Alexa, comScore.

A major challenge is how to differentiate genuine page views from bogus visits generated by automated programs [3].

There are two ways that traffic data may be collected: site-centric, where the unit of analysis is carried out at the web server site (hits, sessions, visits, and impressions); and user-centric, where data such as cookies, online registration, or transactions, are collected on the client's browser. Site-centric statistics are susceptible to manipulation by webmasters who are anxious to raise their own ranking. On the other hand, user-centric approach raises the issue of how representative is the sample statistics collected from a selected panel of users. All traffic statistics are subject to sampling bias. For example, in the Alexa and Websearch methods, users must first download a tool bar. Therefore, statistics are generated by a self-selected sample.

Reference-based criteria rank a website according to how frequently that site was cited by another in relation to a given search topic. Presumably the more frequently a site is cited, particularly by other sites that are regarded as subject matter authorities, the more important that link will be weighted. Citation links may be classified as Self links – referenced by itself (recursive links); Foreign links – referenced by another site; Weighted foreign links – weighs the links according to the importance of the citing sites. Google was the first to incorporate this link-popularity concept to its page rank (PR) algorithm [4]. Unfortunately this method is also susceptible to Manipulation and abuse by Search Engine Optimization (SEO)[5].

Opinion-based criteria use the opinion of a panel of judges to rank the list of websites. The resulting rankings reflect the subjective judgment of the panel members. In a sense all ranking methods, including the traffic-based ones, rely on a panel of judges. But opinion-based criteria are more explicitly dependent on the subjective opinions of the judges, with little regards for objective data. Examples of opinion-based ranking lists include Time's 50 coolest websites, PC Magazine's top 100 websites, 100 Best websites, World's hottest, and Web100. Opinions may come from three sources:

· ▫ Opinion from a panel of experts
· ▫ Impression of potential customers
· ▫ Buying experience of actual customers (e.g. Bizrate.com or BBB.com)

To ensure that their ranking lists are accepted by web users, many of the ranking providers first establish their credibility with the intended audience by some other means. For example, Time and PC magazines

are already acknowledged authorities in their respective fields.

Web Service

Web services are a core technology in .NET, Web services are typically application programming interfaces (API) or Web APIs that are accessed via Hypertext Transfer Protocol (HTTP) and executed on a remote system hosting the requested services.

Web services provide a standard means of interoperating between different software applications, running on a variety of platforms and/or frameworks.

web services is a functions in ASP.NET with parameter write in .net language such C# ,VB.net ,… and published, we can catch the web service header and pass parameters to make process on remote server and return by result in XML, it's a XML-based interface definition language[6].

1. Web Services Components.

Several essential activities need to happen in any service-oriented environment [7]:

1. A Web service needs to be created, and its interfaces and invocation methods must be defined.

2. A Web service needs to be published to one or more intranet or Internet repositories for potential users to locate.
3. A Web service needs to be located to be invoked by potential users.
4. A Web service needs to be invoked to be of any benefit.

Web Services architecture then requires three fundamental operations: publish, find, and bind. Service providers publish services to a service broker. Service requesters find required services using a service broker and bind to them. These ideas are shown in the fig 1.

Making all of this work requires several technologies [8] as in fig 2.

- Interfaces to Web services can be defined using Web Services Description Language WSDL
- Web services are most commonly invoked using Simple Object Access Protocol SOAP
- Web service interface definitions can be published and accessed via Universal Description, Discovery, and Integration UDDI

Design and Implementation

In this section we will explain the design and implementation of web ranking server using web service and html tag and add rating method depend on opinion -based criteria.

Web ranking server is web application designed to generate script that capture number of visitors for any website in wide world web and count rating. It stores the sites hits in ranking database, and displays the records of visitors to the customer's website and compare their data with other sites of the same class, through graphical reports, shows the growth rates for visitors and traffic times and their residence times.

All these indicators will store in system database and use it to create rank value for each website.

The system is partitioned into five parts
- Ranking database.
- Web server.
- Web ranking site and interface.
- Web service and html tag.
- Web rating.

1 .Ranking Dbase

Its indexed Database has all ranking activities.

Ranking database consists of the following tables:

A. Category table:- see fields in fig 3
B. Site info table: - register client information after register, we can see table detail as fig 4 and register page as fig 9.
C. Ranking table: have the ranking information to all clients fig 5, we use from vd1..vd7 because the week starts in day field in registration page different is between clients.
D. Opinion table: registers the rating information fig 6, directly sum all number of visitor give opinion divide by five and round it to near half star from option star script and make it and all before as yellow color, can't come back to give opinion before one week.
E. History table: This table registers number of visitor for each client peer week with date in format four digits to year then two digits to week number fig 7.
F. IP table: this table registers all iP that make action with date and time, there are two actions, first automatically if enter add one to visitor if not in ip table or in ip table but from two hours ago, the second action make rate if not in table or make rate and in table and gopinion field is false, this table needs service all 4 hours by

deleting all ip that not make rate "gopinion is false" and time from two hours ago, and also deleting all ip that make opinion from week, IP table as seen in fig 8.

2 .Web Server.

Web server has web application used to capture number of visitors for any website "client" in wide world web. it stores the sites hits in database, other information on client , history , opinion also stored in database in server, compute opinion, and all operation from register to connect to web service , generate the script , the rule and computation do in server and then give the result to web ranking site and to clients SITES.

3 .Web Ranking Site and Interface.

It is a website designed to let the client owner register with ranking server and connect with service then take the advantage of this service, and display the records of all visitors to the user of website ,number of online user, average time elapsed by user in site, maximal number of user visit site with date, compare their data with other sites of the same class, through graphical reports, shows the growth rates for visitors and traffic times and their residence times, see fig 10,11 the same fig two part, and fig 12.

4. Web Service and Html Tag.

Because different programming language, different aim to design web sites, different experience in design, and different type of design, web server produce two methods to register clients and work with server .

a- Web Service

It s development in .net environment, that is used to connect client with special service in server and return the result and the client can work or display the result as he need.

Web ranking service are components on a Web ranking server that a client website can call by making HTTP requests across the Web. Developers can take advantages of web ranking server database by making quires and review the results, Web service enable the developers to create custom applications (Web application or Desktop application). After complete registration in fig 9, accept the rank method and click next the fig 14 generate the web service and html tag as visible and need rate script.

b- Html Tag

Not all designer have experience with server side program and programming, this tag used without any experience only take tag and past it in client pages.

Two mode can used with this tag the first mode is visible "visible field in registration yes "mean the result record appears in client and also more result can take from ranking web site the second mode is invisible that only icon hyperlink with ranking server will appear and result in ranking server only.fig 14 the html tag and in the next section we will see different examples of clients.

5. Web Rating.

Web rating come from Opinion-based criteria method, web rating ask user to give your opinion from 1-5 about web site and then this opinion stored in opinion table and compute the average of opinion by sum the opinion degree for each web site and divide by number of user give opinion and round the result to nearest half and the result out in five star reflect the result.

The user can t regive opinion before week, this check from ip table.fig 14 the rate script and in the next section we will see different examples of clients.

Test and Experimental result

Many clients designed simply to test the code; the client has only name and ranking

script, first client named test one has visible html tag, and has rate by making need rate and visible in registration yes see fig 9 the registration page and fig 13 the test one client, the second client named test two fig 15 the need rate yes and html tag is invisible, the third client named test three the need rate and visible fields NO but the result come from web service and the client owner can produce the result as need and in any format like graphic or text see fig 16,the last client named test four the need rate and visible NO, no information from web rank server appear in client except the icon hyperlink to web server fig 17. In server web site see fig 10, fig 11, and fig 12 as explained before.

After registration generate unique id to client and register all information in siteinfo table and   after taking the script and connecting it to server in web service or/and past in client in html and rate the ranking information come from client and register the visitor number in rank table and history table, if need rate in registration is yes and rate script generate from server with the same id of client and past in client the information go to the opinion table, with the information come from client about the visitor and the opinion ,the ip must register in ip table " inform if give opinion or not" with date for the opinion "next time after week" and time for ranking visitor "next time after two hours".

Some report come to the web site owner if in register make alerting by Email yes such as giving the traffic value in week started from day specified in start week from field in registration page, increase or decrease with range specified in average peer week, the average time for each user in web site, the rank of web site in the same category, number of user return to web site within 48 hours, number of user complete work with web site like pay money or download this feature is optional and must put the url of this page in Exam page1 field in registration and generate another "new" script has the same id put with exam=yes in search part of script, this tag past in this page in client , the generation only new html tag not need generate new web service but the result can take from web service. And the last give some standard advice how increase the traffic and make search engine discover your client.

Conclusion

The web rank is from befit web application, which helps user to decide and finish work. The system have five component the ranking database, web server, web ranking site and the heart web service and html tag finally the web rating.

Use the session and cookies to right compute the time elapsed by each user in web site and compute how many user returns to web site with 48 hours, but some browser have option delete cookies when close browser and some make browser reject store any data this make the number of user return with 48 hours less than or equal the correct number.

The site owner can put the script in all pages in web site because the user can go directly to any page not necessary to home page and the visitor compute one time until if go from page to page and all have script because need different ip or 2 hours and new session to recount new user.

Can take the state of visitor with the flags but this does not work with localhost for that not add this feature and can count number of visitor for each client and from each state.

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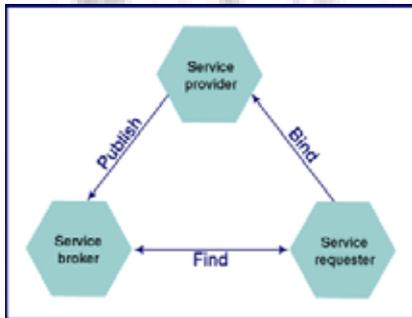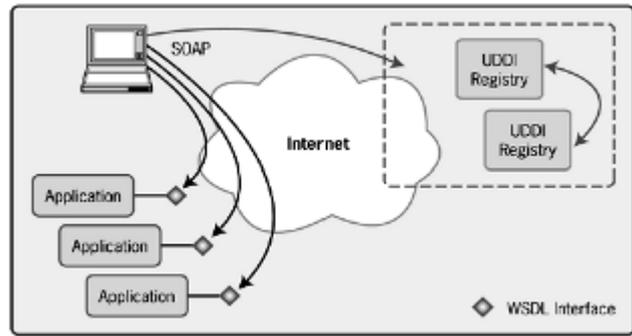
Fig.(1): Three fundamental Operations in web service

Fig.(2): WSDL, SOAP, and UDDI are the core Web services technologies

Fig .(3): Category table

site id in rank table	رقم	idr
starting date	تاريخ/وقت	starttime
week start in	رقم	startweek
average per week	رقم	apw
no of visitor in week	رقم	viw
visitor in first day in week	رقم	vd1
visitor in second day in week	رقم	vd2
visitor in third day in week	رقم	vd3
visitor in four th day in week	رقم	vd4
visitor in fifth day in week	رقم	vd5
visitor in sixth day in week	رقم	vd6
visitor in seventh day in week	رقم	vd7
no of all visitor	رقم	allv
average of all visitor in weeks	رقم	sweek
no. of weeks from start	رقم	noweek
average ellapise time for each user in site	رقم	timee
no of user reach the exam page	رقم	fwork
no. of user return to site within 48 hours	رقم	ret
max nuber visit in a day	رقم	max
date of max number	تاريخ/وقت	dat

Fig.(5): The Ranking table

site id in rate table	رقم	ido
rate excellent	رقم	rex
rate very good	رقم	rveryg
rate good	رقم	rgood
rate average	رقم	rav
rate poor	رقم	rpoor

Fig.(6): Rating table

client id	رقم	jdh
no. year week like 200725	رقم	yearweek
No. of visitor in week	رقم	viw

Fig.(7): The history table

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Fig.(8):Iptable table
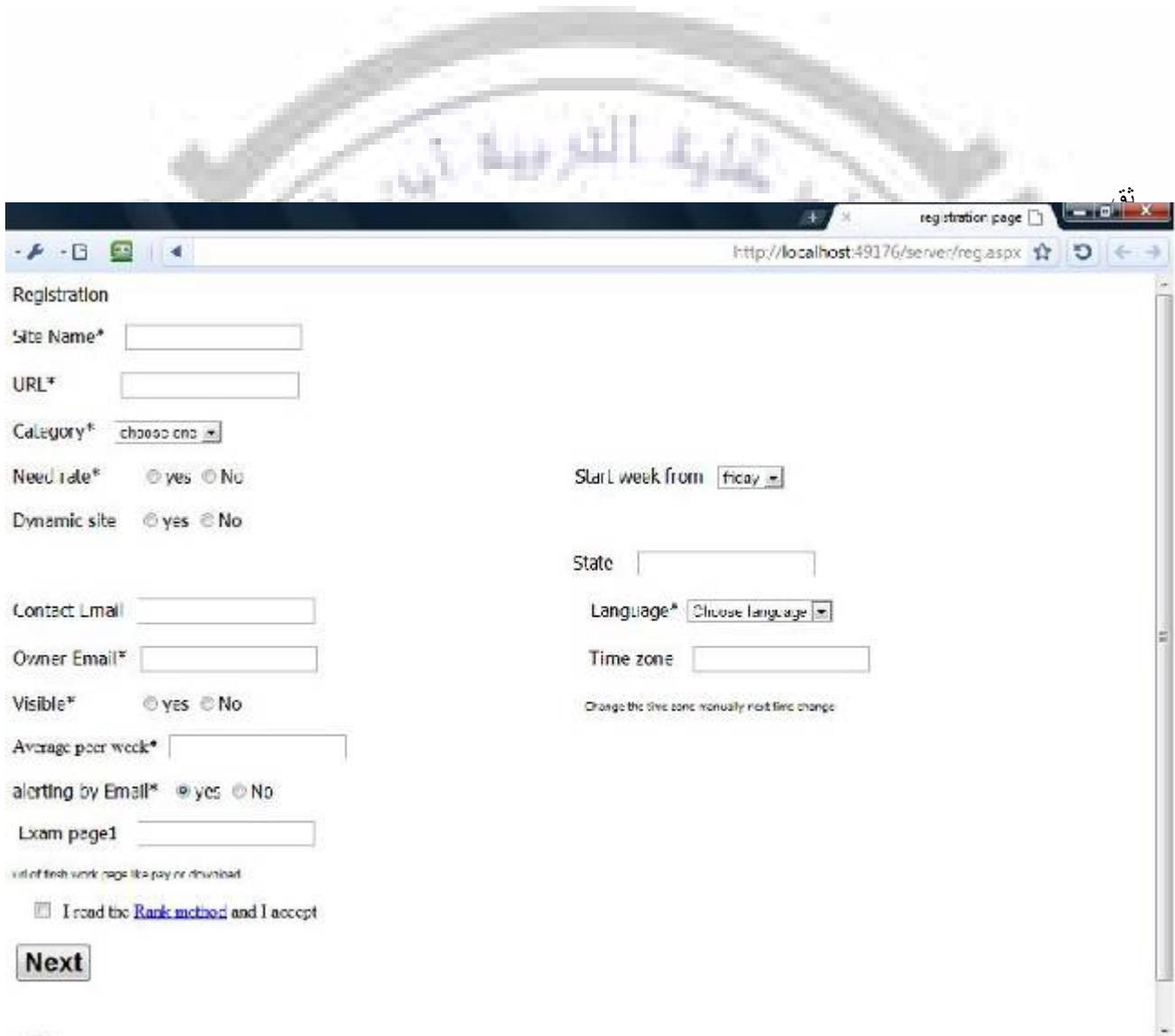
Fig.(9): Registration page

Fig.(10): search of all in special category part 1 half page

Time zone	4
Category	education
Av. time for each visitor	0 hour (s) 0 minute (s) 56 second (s)
Max visitor in day and date	4 in 7/6/2011

Fig .(12): Search of web site name in all categories
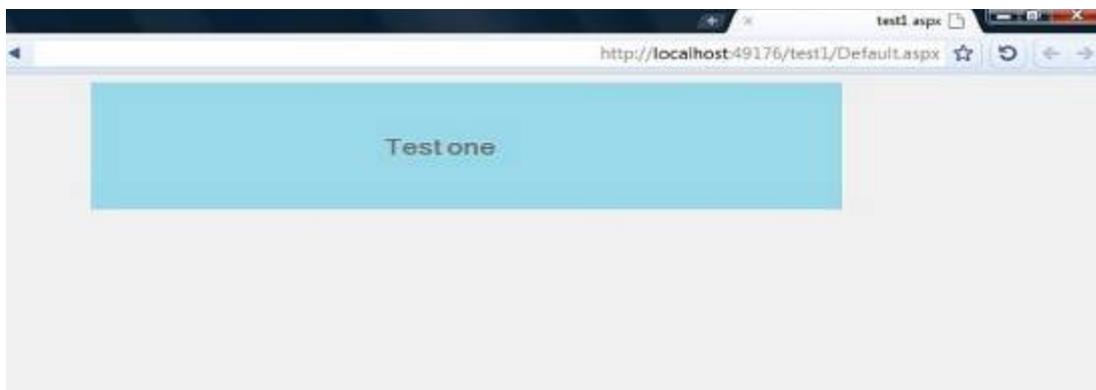
Web service

```
xmlns:soap="http://
schemas.xmlsoap.org/soap/envelope/">
    <soap:boady>
        <ranking Xmlns=http://localhost/server/>
            <id>int<id>
            <nam>string<nam>
        </ranking>
        <visitor Xmlns=http://localhost/server/>
            <id>int<id>
            <nam>string<nam>
        </visitor>
        <max Xmlns=http://localhost/server/>
            <id>int<id>
            <nam>string<nam>
        </max>
```

Html Tag

```
<iframe src ="http://localhost:49176/server/
/Rank.aspx?
Webuel=http://localhost:49176/test1/Default.aspx
&Nam=testone&Cat=1" width="260" height="260"
frameborder="no" scrolling="no" unselectable="off">
</iframe>
```

Rating tag

```
<param name="bgcolor" value="#FFFFFF" />
<param name="wmode" value="transparent" />
<embed src="
http://localhost:49176/server//votes/vot.swf?ido=1"
quality="high" bgcolor="#FFFFFF" width="120"
height="50" name="vote" align="middle"
```

Fig.(14): The scripts of web service and html tag and rating

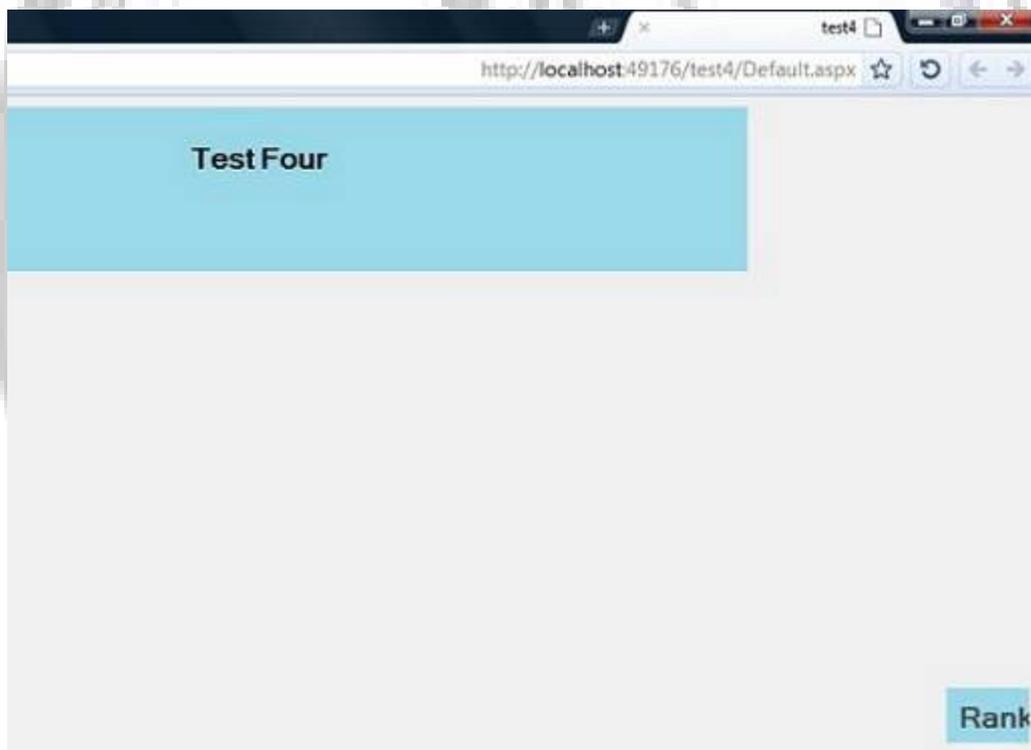Fig.(15): The second client named test two

Fig.(17): client four named test four

خادم تصنيف وفرز وترتيب مواقع الانترنت باستعمال خادم ويب

فراس عبد الحميد عبد اللطيف

قسم الحاسبات¡ كلية التربية ابن الهيثم¡جامعة بغداد

الخلاصة

كمية البيانات على شبكة الانترنت تنمو بسرعة، وعدد مواقع الانترنت أصبح كبيرا جدا. لذلك مجموعة من تطبيقات الانترنت ضرورية لمساعدة المستخدمين واعطائهم بيانات حول هذه المواقع لاسيما في التجارة الالكترونية، الخبرية والمواقع التي تقدم خدمات.

ان مواقع الانترنت تبنى باسعار وتكلفة قليلة نسبيا، وهناك صعوبة في انجاز تقويم لها. لهذا مواقع الترتيب تقوم بهذه الاعمال من وجهات نظر مختلفة.

في هذه الورقة البحثية سوف نقترح طريقة لعمل ترتيب وتصنيف وفرز باستعمال خدمات الويب وسكربت جافا لتحفيز خادم بعيد واعادة بعض البيانات العامة الى مستخدمي الموقع واخرى معلومات خاصة الى مالك الموقع.

الكلمات المفتاحية : فرز وتصنيف المواقع ،ترتيب المواقع ، خدمات الويب ،حركة المرور على الويب