Journal

ScientificPapers.org

of Knowledge Management, Economics and Information Technology

Web Technologies And Databases

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The database means a collection of many types of occurrences of logical records containing relationships between records and data elementary aggregates. Management System database (DBMS) - a set of programs for creating and operation of a database. Theoretically, any relational DBMS can be used to store data needed by a Web server. Basically, it was observed that the simple DBMS such as Fox Pro or Access is not suitable for Web sites that are used intensively. For large-scale Web applications need high performance DBMS's able to run multiple applications simultaneously.
Hyper Text Markup Language (HTML) is used to create hypertext documents for web pages. The purpose of HTML is rather the presentation of information – paragraphs, fonts, tables, than semantics description document.

Keywords: *internet, informations, web, dates*

Online database

Placing on the Internet collections of complex information involves storing them in the database which can then be accessed online by users. The term database can easily be deceiving because in reality system that makes visible this database on the Internet is far more complex.

Any database that provides information to users of Internet services should be stored on a server that is visible on the Internet and to use a scripting technology. The information in the database is extracted according to the specific needs of user and then formatted so that they can be properly displayed. For example, when someone writes the word "Romania" on Google search engine. com system will request the search form will search the database of items that the word "Romania" after which will format the results so that they can be displayed by a browser such as Internet Explorer. A general view of server architecture is provided in the scheme in the following figure.
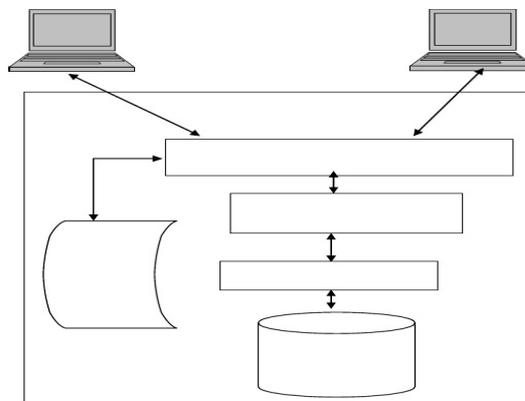

Fig. 1 Architecture of Web sereverului support scripting

As seen in Figure system architecture is structured on several levels. When the user wishes to access external information located on the server, it will use an Internet navigator to connect to it. Accessing the server is done via a URL.

The main elements which enter into the composition architecture are server: Web server, the parser scripts type server-side, the drivers for access to the database, the database and collections of files. The Web server that is a complex application responsible for communication with external Web browsers. Basically the Web server listens to the HTTP port (default 80) of the machine on which it is installed. When a request arrives on this port, the Web Server interprets to see what information has been requested. Information requested from the server are actually files that reside on your hard disk. The Web server is to wrap these files so that they can be sent ahead. The required Files can be divided into two categories:

- files that contain static information. They shall be sent forth to browsers without any kind of change. Static Files are usually images, HTML files, movies, documents offered for download, movies, Flash animations, etc.
- scriptures. These are practices of small programs that run by a intepretor, by sending to the Web server only the result of their execution. The main role of these scripts is to dynamically generate documents type. The technique of dynamic generation of HTML documents makes it possible to access the databases on the Internet .
- the role of the parser scripts type server-side has been described above. Where a script needs the records from a database that will interact with it through a driver. He will run in an application-level SQL database. Following the execution of this application I return a cursor. Had this cursor is generates HTML code that once reached a navigator determines the display of the data you want.

Drivers for access to the database are meant interaction between interpreter of scriptures and database itself. They are very specialised software tools that usually are not visible to the programmer nor any user. The drivers are important because the choice of their flawed significantly affect system performance.

Main SGBD sites used in Web applications are: mySQL, SQL Server and Oracle. Collections of files are static information which are sent to users on demand.

It is important to note that ASP scripts are designed to produce HTML pages that you send to Web browsers to display. The major Benefit of ASP scripts is that permit the production of dynamic HTML code according to the concrete needs. For example, you can easily get the records from a table to a database data Sourceand may wrap in HTML format can be displayed in a browser.

Although they were conceived as General Web application, the overwhelming majority of applications THE ASP scripts are related to working with databases on-line.

In order to achieve THE ASP scripts must have the following:

- a computer on which to set up a Web server (for example, Internet Information Server and Personal Web Server); any Windows system can be easily configured to support ASP scripts;
- a text editor; You can use Notepad or specialized editors such as FrontPage or Macromedia Dreamweaver 2007.
- a SGBD for creating and updating of the database used by means of scripts;
- a Web browser to see the result of script execution;

Considering that THE ASP scripts are usually made to work with databases is needed and a database to run the script. It must be on the same computer with the script, preferably in the same directory.

Database acces

ActiveX Data Objects (ADO) is a technology that allows accessing databases from Web pages. Basically, ADO can be used for writing scripts compact for connecting to data sources from the Web pages or to sources of OLE DB-compatible data; ADO is also utilizează şi like databases, spreadsheets tabular, sequential data files, or e-mail directories.

OLE DB is a programmatic interface to system level that provides the standard set of COM components for managing databases. Accessing COM components is carried out with the object model using VBScript or ADOşi JScript scripts can access the databases of Web applications.
ADO is also used for opening databases compatible ODBC (Open DataBase Connectivity).

For creating an application with the access to the database, ADO will require an identification of the data source. This is done by adding character to connect unuişir, consisting of arguments separated with unşir ";" for example, the name of the supplier of the data source (data source provider) and the location of the data source. ADO use characters for login in order to identify THE OLE DB provider (provider).

The provider is a component that represents the data source, he also available to your application information about the format of the data. For compatibility, the OLE DB provider for ODBC supports the syntax of the string for the connection. The string of characters for login that relates a source database on a remote computer, can contain security information (user name, password). To prevent access to data sources creates Windows accounts for the computers that will access data sources, with the appropriate NTFS permissions to files.

For the establishment and the handling of the connections between the application and data sources compatible OLE DB or ODBC-compatible databases, ADO provides the Connection object. He has properties and methods allowing the opening and closing the logins, databases, respectively the formulation of queries to update the data.
To establish a connection to a database, you will create an instance of the Connection object.

For example, the following script create Connection and open a connection.

<% ' create the object connection Set cnn = Server. CreateObject (' ADODB. Connection ") '

Open a connection using the string for connecting to OLE DB .
cnn. Open "Provider-Microsoft Jet OLEDB... 4.0; Data Source =
c:\MarketData\ProjectedSales.mdb "%>

The string for the connection does not contain any spaces before or after the equal sign (=) In the previous example, Open method of Connection object refers to the character string for the connection.

Security is enforced by the security subsystem of the SGBD system, which checks whether all applications access to satisfy the constraints of security (or authorities, most likely) stored in the system catalog.

Each authority from a discretionary scheme has a name, a lot of privileges (RETRIVE, INSERT, etc.), a variable-by-appropriate relationship (i.e., the data for which you apply the authority) and a lot of users. These authorities can be used to provide control elements dependent on value, independent of the summary and statistical value, dependent on context. Audit Collection can be used to record attempts of violation of security .

Web technologies: HTML, ASP, PHP

HTML is a form of markup text oriented to the presentation of documents on a single page, using a specialized rendering software, called HTML user agent, the best example of such software as your Web browser. HTML provides the means by which the contents of a document can be annotated with various types of metadata and indications of playback. Indications of play can range from minor text decorations, such as specifying the fact that a specific word or it must be stressed that an image should be introduced, up to sophisticated scripts, images, maps and forms. The metadata may include information about the title and author of the document, the structural information about how the document is divided into different segments, paragraphs, lists, headings, etc. and crucial information that enable the document can be linked to other documents to form such hyperlinks (or web site).

HTML is a text format designed to be read and edited using a simple text editor. However writing and modifying pages in this way requires solid knowledge of HTML and is time consuming. Graphical Editors (WYSIWYG) such as Macromedia Dreamweaver, Adobe GoLive, Microsoft FrontPage or allow webpages to be treated like documetele Word. You can generate HTML directly using the technologies of server-side encoding such as PHP, JSP or ASP. Many applications like content management systems, wikis and forums web generates HTML pages.
HTML is also used in e-mail. Most e-mail applications use a built-in HTML editor for composing e-mails and a presentation engine of e-mails of this type. Using HTML e-mail is a controversial topic and many mailing lists they intentionally blocked.

Active Server Pages (ASP) , also known under the names of Classic ASP or ASP Classic, was the first language programming server-side Microsoft's for generating dynamic Web pages. Originally was released as an add-on for IIS by Windows NT 4.0 Option Pack, after which it was included as a free component in Windows Server, starting with the version of Windows 2000 Server). Currently was passed its version of ASP.NET.
ASP.NET is a Microsoft technology for creating Web applications and Web services. Asp.net is the successor of ASP (Active Server Pages) and benefit from the power of the .NET development platform, and the set of tools offered by the development environment of Visual Studio .NET application "".

Some of the advantages of the ASP .NET are:
- ASP .NET has a broad set of components, based on XML, thus providing a model object oriented programming (OOP).

- ASP .NET runs code compiled, which increases performance of the web aplication. Source code can be separated into two files, one for the executable code, and another one for the content of the page (HTML code and the text of the page).
- .NET is compatible with over 20 different languages, the most used as C # and Visual Basic.

PHP is a programming language. PHP Name comes from the English language and is a recursive acronym: Php: Hypertext Preprocessor. Used originally to produce dynamic Web pages, is widely used in the development of pages and web applications. It uses mainly incorporated into the HTML code, but starting from version 4.3.0, you can also use the "command line" (CLI), allowing for the creation of independent applications. It is one of the most important programming languages open-source web and server-side, with versions available for most web servers and for all operating systems. According to the statistics is installed over 20 million websites and 1 million Web servers .

Conclusions

A database, sometimes called "data bank" is a way of storing information and data on external media (storage device), with the possibility to light and their rapid retrieval.
Typically a database is stored in one or more files. Databases are handled by systems management databases.

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