Digicoders technologies (P) Ltd.

LECTURE NOTES

ON

INTERNET AND WEB TECHNOLOGY

Unti-8

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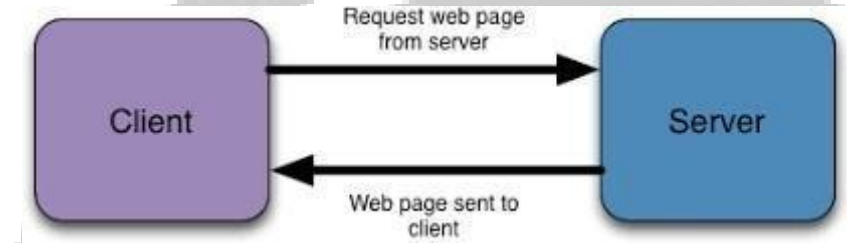
Server Side Scripting Introduction to

server side Scripting:

Server side scripting is defined as "web server technology in which the user's request is fulfilled by running a script directly on a web server to generate dynamic web pages"

Server side scripts runs on the server rather than our computer. When we visit a website, the script will create the webpage on dynamically, In case of server side scripting, the client Needs the request on the machine and then sends the result to the client machine



Popular server-side scripting languages include Perl PHP, ASP, JSP, Ruby, Cold fusion and Python.

Advantages:

1. Load times are generally faster than client side scripting.
2. It does not require the user to download plugins like JAVA or flash.
3. We can create a single website template for the entire website. Each new dynamic page we create will automatically use it.
4. Our scripts are hidden from view, Users only see HTML output, even when they view the source

Components of server side Scripting:

The Components of server-side Scripting are:

1. Web Server: A web server is a software that continuously monitors for any request that has been made from client. It reads any request; it retrieves the particular file or values from the database and sends any the results to the client machine.

e.g. PWS (Personal Web Server), IIS (Internet Information Server), Apache

2. Scripting Files: The second part of the server-side scripting is the scripting files that are executed on the request of the client. These files are developed in any of the server-side scripting languages that are available with us: ASP (Active Server Pages), JSP (Java Server Pages), PHP (Personal Home Pages), Servlets.

3. Database Files : The third part of working of the server side scripting is the database files. These database files can be designed in any of the available database such that: MS Access, SQL Server, My SQL, ORACLE.

4. SQL:

SQL is Structured Query Language that is used to interact with the databases. It is any Relational Database integral part of Management System (RDBMS) package system. SQL uses some syntaxed statements predefined to perform various database operations like.

5. Scripting Methods : The main scripting methods that are used in server side scripting are mentioned as under: (a) ASP (b) JSP

Difference between CSS and SSS

Server side scripting	Client side scripting
Used to create dynamic pages based a number of conditions when the user's browser makes a request to the server.	used when the user's browser already has all the code and the page is altered on the basis of the users input.
The Web Server executes the server-side that produces the page to be sent to the browser.	The Web Browser executes the client scripting that resides at the user's computer
Server executes server-side scripts to send out a page but it does not execute client-side scripts	The browser receives the page sent by the server and executes the client-side scripts.
Used to connect to the databases that reside on the web server.	Cannot be used to connect to the databases on the web server.
an access the file system residing at the web server.	can't access the file system that resides web server. at the web server
The settings that belong to Web server can be accessed using server-side	The files and settings that are local at the user's computer can be accessed
can't be blocked by the user	possible to be blocked by the user.
Response from a server-side script is slower as compared to a client-side script	Response from a client-side script is faster as compared to a server-side script
Examples: PHP, JSP, ASP. Net, Ruby, Perl.	Examples: Javascript, VB script, etc.

Server-side Scripting method

some of the server side scripting methods are:

1. (Common Gateway Interface): Simple scripting mechanisms supported by practically web servers. Most commonly written in Perl, C, C++, or Python.

2. Java Servlets: Ability to execute Java objects on the server. Newer, less common technology but has dramatic performance advantages over CGI.

JavaScript on server

JavaScript extends the capabilities of the server. By providing a scripting language the software can do more without calling an external program. This makes it easier for Webmasters to add features to their sites that browsers can take advantage of. And it can reduce the load on the server by keeping the processing within the server software.

1. **Request Object:** Each time a browser wants more information it sends a request to a server. Data about these requests are available on the server from the request object in JavaScript. If we have written CGl scripts.

2. **Client Object:** Each time a new client accesses the server application, a new client object is created. However, there are no built-in properties for the client object. If we need information retained about the client, then we create a property.

3. **JavaScript and CGls**: When we are building websites, we have dealt with Common Gateway Interface (CGI) scripts. Prior to JavaScript, this was the primary means of creating interactive applications. Libraries of CGI scripts include counters, e-mailers, message boards, and many other functions.

LiveWire can replace CGI programming. Instead of calling external programs, the server software runs applications that are closely integrated to it. JavaScript is the language of these applications. Applications are developed with three tools. We build these applications using LiveWire's Site manager. The source files for the applications are developed using the same HTML editors used to build browser JavaScript pages. The applications run in response to requests from Netscape Navigator.

4. **The JavaScript Balancing Act :**when interactivity was only done with a CGI, all of the processing was done on the server. Because Cpt can run on both the server and the browser, writing a successful application requires we to properly allocate the processing between the two.

5. Exchanging Information between the Browser and Server:

From Client to Server: User responses are submitted just as we currently handle forms. The user completes the form and clicks the submit button. The data from the radio buttons, checkboxes, textboxes, and text area are sent to the server. The server then places this data into the request object. Each element of the form has a corresponding property.

From Server to Client: Usually a server only returns a static page in response to a browser request. In LiveWire, the response is still a page, but the contents of the page vary. User input can result in changes to default form values, new values of hidden form elements, or direct substitutions.

Example:

<INPUT TYPE="text" NAME="example" VALUE="request.agent'>

SQL (STRUCTURED QUERY LANGUAGE)

It is used to interact with the databases. It is integral part of any Relational Database Management Svstem (RDBMS) package system. SQL uses some predefined syntaxed statements to perform various database operations like.

1. Retrieving lnformation from a Table:

SQL uses the select statement for this purpose.

Syntax:

Select column names from table names;

where; (i) Column names is the list of columns (separated by (,) comma) or * for listing all columns.

(ii) and Table name is the name of the table.

Hence, the statement can be written as: Select from emp;

and the above statement retrieves all the columns and rows from the emp table.

2. Inserting Records into a Table:

For inserting rows or records into the database tables, the SQL uses following syntax:

insert into table name values (set of values);

Example: To insert any record in a table having name emp and having field empno and sol. we can issue a SQL statement:

insert into emp values (1, 1000)

3. Deletion of Records:

This SQL statement is used for the deletion of the records from a table. It uses the following syntax:

Delete from table name;

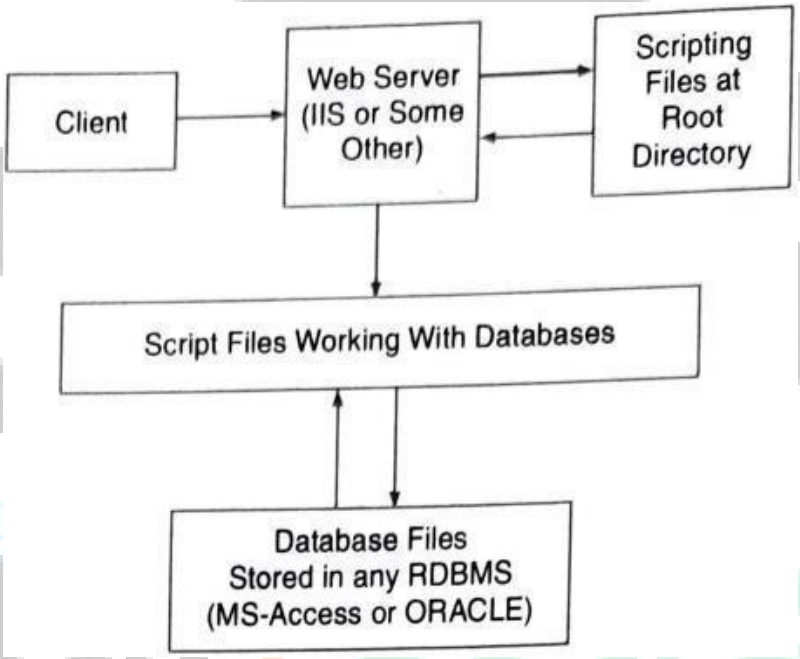
Example: If one wants to delete all the records present in the emp table, the SQL statement would be like

Delete from emp;

4. Updation of Records

For updating the already existing records:

Update table name set column name = new value;



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