CHAPTER 4 SOFTWARE DESCRIPTION

* 1. FRONT END HTML

HTML or Hypertext Markup Language is the main markup language creating Webpage and other information that can be displayed in the web browser. HTML5.1 is the latest standard for HTML. It was specially designed to deliver a rich content without the need for additional plug-in. The current version delivers everything from animation to graphics and also be used to build complicated web application. HTML 5.1 is also cross – platform. It is designed to work whether the people are using a PC, or a Tablet, a Smartphone.

Some rules for HTML were established:

* + - New feature should be based on HTML, CSS, JavaScript.
    - The need for external plug – in (like flash) should be reduced.
    - Error handling should be easier the in previous version.
    - Scripting has to be replaced by some mark-up.
    - HTML 5.1 should be device independent
    - The development process should be visible to public.

Features of HTML5

* + - The <canvas>element is used to allow a web developer to render graphics on the fly. As with video, there is no need for a plug-in.
    - Web Workers is certain web application use heavy
    - Scripts to perform function. Web Workers use separate background threads for processing.
    - Application caches is used to Web pages will start storing more and more information locally on the visitors computer .It works like cookies, but where cookies are small ,the new feature allows larger files.
    - Geo location is best known for use on mobile devices, geo location is coming with HTML5.
    - Support for local storage.
    - New form controls, like calendar, date, time, email, URL search.
    - New content-specific element, like <article>, <footer>, <header>, <new>,

<section>.

* + - The video and audio element for media playback.

CSS

CSS Stands for "Cascading Style Sheet". Cascading style sheets are used to format the layout of Web pages. They can be used to define text styles, table sizes, and other aspects of web pages that previously could only be defined in a page's HTML. CSS helps Web developers create a uniform look across several pages of a Web site. Instead of defining the style of each table and each block of text within a page's HTML, commonly used styles need to be defined only once in a CSS document. Once the style is defined in cascading style sheet, it can be used by any page that references the CSS file. Plus, CSS makes it easy to change styles across several pages at once.

If the pages all reference the same style sheet, the text size only needs to be changed on the style sheet and all the pages will show the larger text.

JAVASCRIPT

JavaScript is a programming language commonly used in web development. It was originally developed by Netscape as a means to add dynamic and interactive elements to websites. While JavaScript is influenced by Java, the syntax is more similar to C .Produce an error message before any information is actually transmitted to the server.PHP (Hypertext Pre Processor) is a popularly used server side scripting language that is basically designed for the web development to produce dynamic web pages.

PHP code is interpreted by a web server with a PHP processor module, which generates the resulting Web Pages. PHP commands can be embedded directly into an HTML sources document rather than calling an external file to process data. It has also evolved to include a commend line interface capability and can be used in standalone graphical applications.

Advantages of PHP

* + - PHP provides a more secured website due to high quality encryption schema
    - PHP applications provide a fast browsing experience due to the reason that all the processing is performed at the server side.
    - PHP is freely available which helps to cut the cost of development to a considerable extent.
    - It provides compatibility with almost every web server and operating system the application is laid on.
    - The load of PHP developed sites is also less as PHP is a light weighted language for web-site development.

Features of PHP

* + - It is general purpose open-source language
    - It is extremely user-friendly as compared to other popular languages.
    - PHP is taken as a unique language supporting various functions.
    - PHP can manage a lot of database.
    - PHP s flexible. It runs on different operating systems.
  1. BACK END

MySQL is an open source relational database management system, which can be available any time. It has no cost for development purpose. A database is a separate application that stores a collection of data. Each database has one more distinct APIs for creating, accessing, managing, searching and replicating data it holds. Its name is a combination of “My”, the name of co-founder “Michael Widenius’ daughter, and “SQL”, the abbreviation for structures Query Language. MySQL is written in C and C++.Its SQL parser is written in yacc, but it uses a home-brewed lexical analyser. MySQL works on many system platforms, including AIX, BSDI, FREEBSC, HP-UX, EComStation, i5/OS, IRIX, Linux, OSX Microsoft windows NetBSD, Novell Netware, OpenBSD, Open Solaris, OS/2, Warp, QNX,Oracle Solaris, Symbian, SunOS, SCO Open server, SCO UnixWare, Sanos and Tru64.A port of MySQL to open VMS also exists.

The MySQL server software itself and the client libraries use dual-licensing distribution. They are offered under GPL version 2, beginning from 28 June 2000(Which in2009 has been extended with a FLOSS License Exception) or to use a proprietary license.

Support can be obtained from the official manual. Free support additionally is available in different IRC channels and forums. Oracle offers paid support via its MySQL Enterprise products. They differ in the scope of services and in price.

Additionally, a number of third party organizations exist to provide it “performs extremely well in the average case” and that the “developer interface are there, and the documentation is very, very good”. It has also been tested to be a “fast, stable and true multi-user, multi-threaded SQL database server”.

FEATURES

MySQL is offered fewer than two different editions: the open source MySQL Community Server and the proprietary Enterprise Server.

MySQL enterprise server is differentiated by a series of proprietary extensions which install as server pug-in, but otherwise shares the version numbering system and is built from the same code base.

Major features as available in MySQL:

* + - A broad subset of ANSI SQL 99,as well as extension
    - Cross-platform support
    - Stored procedures, using a procedural language that closely adheres to SQL/PSM
    - Triggers
    - Online DDL when using the InnoDB Storage Engine.
    - Information schema
    - Performance Schema that collects and aggregates statistics about server execution and query performance for monitoring purpose.
    - A set of SQL Mode options to control runtime behaviour, including a strict mode to better adhere to SQL standards.
    - X/Open XA distributed transaction processing (DTP) support; two phase commit as part of this, using the default InnoDB storage engine.
    - Transactions with save points when using the default InnoDB Storage Engine. The NDB Cluster Storage Engine also supports transactions.
    - ACID compliance when using InnoDB and NDB Cluster Storage Engines.