**CHAPTER 7**

**SYSTEM DEVELOPMENT**

Selection of software development of the system is very important. Special care is to be taken while selecting the software. This is because of the various facilities provided by different languages and packages in used. There are many languages, which are used to solve the problem of the user. Each language has its own nature, different scope of applications and having its own limitations. Keeping in view the requirements of the system, it is decided to use the following tools for development of this project:

My SQL Server

PHP

CSS

JAVA SCRIPT

AJAX

Application is developed using Microsoft SQL Server for the following features.

**7.1) MYSQL server**

My sql server is a relational database management system that provides an open, comprehensive and integrated approach to information management. Database server must also prevent unauthorized access and provide efficient solutions for recovery. My sql server provides efficient and effective solutions for the following features.

**7.1.1) My Sql Server Features**

Following are some key features of my sql server

**7.1.1.1) Large Database and Space Management**

My sql server supports the largest database to make efficient use of expensive hardware devices; it allows full control of space usage.

**7.1.1.2) High transaction Processing performance**

My sql maintains the preceding features with the high degree of overall system performance. Database user does not suffer from slow processing performance.

**7.1.1.3) High Availability**

At some sites, mysql server works 24 hours per day with no down time to limit database throughput. Normal system process such as database backup and partial computer failures do not interrupt database use.

**7.1.1.4) Controlled Availability**

My sql server selectively controls the availability of data, at the database level. For example an administrator can disallow use of specific applications so that the application data can be reloaded, without effecting other applications.

**7.1.1.5) Openness, Industry Standards**

MySQL adheres to industry accepted standards for the data access language, operating system, user interfaces, and network communication protocols. It is open system that protects a customer’s investment.

**7.1.1.6) Manageable Security**

To protect against unauthorized database access and use, MySQL server provides fail-safe security features torn limit and monitor data access. This features makes it easy to manage even the most complex design for data access.

**7.1.1.7) Database Enforced Integrity**

MySQL server enforced data integrity, business rules that dictate the standard for acceptable data. As the result the cost of managing checks and coding in many applications are eliminated.

**7.1.1.8) Compatibility**

MySQL Server software is compatible with industry standards, including most industry standard operating system(windows).

**7.1.2) PHP(PHP: HYPER TEXT PREPROCESSOR)**

PHP is widely used open source, general-purpose scripting language. It was originally designed for the developing dynamic website. PHP was called personal home page in the beginning. It was developed by Rasmus Lerdorf. PHP proved to be so useful and popular, it rapidly grew to become the full featured language that is today, acquiring the name PHP Hypertext Preprocessor along the way to represent its expanded abilities of processing web pages before they’re displayed.

PHP is a powerful server side scripting language for creating dynamic and interactive website. PHP syntax is very similar to C language. PHP is often used with Apache(web server) on various operating systems. PHP is focused on the needs of new developers and hobbyists. It provides streamlined developed environment helps to develop dynamic web applications in an easy way. It provides a great set of tools, and many reusable controls, and thousands of reusable code snippets to reduce the time and efforts needed to create an attractive professional web application. PHP supports HTML, CSS, JavaScript, XML, RSS, and Web services. We can fully customize the IDE development environment.

**7.1.3) Cascading Style Sheet (CSS):**

With CSS we got a style and layout model for our website. CSS is used for decorating and creating interaction in websites.

**7.1.4) Java Script:**

Java Script is an object-oriented scripting language used to enable programmatic access to objects within both the client application and other applications. It is primarily used in the form of client-side javaScript, implemented as an integrated components of the web browsers, allowing the development of enhanced user interface. Java Script support all the structured programming syntax in C. One partial exception in scoping: C-style block-level scoping is not supported. The primary use of java script is to write function that are embedded in our included form HTML pages and interact with the document object model(DOM) of the page.

**7.1.5) Asynchronous JavaScript And XML(AJAX):**

Ajax is not a programming language but a new technique for creating better, faster and more interactive web applications. Ajax use java Script to send and receive data between web browser and web server. This communication of web browser with server makes the AJAX more responsive. The best feature of Ajax is to exchange the data without loading a new page. Ajax is supported by all browsers and its application is browser and independent.

**7.2) Servers:**

**7.2.1) Apache Server:**

The Apache HTTP Server, commonly referred to as Apache is a web server notable for playing a key role in the initial growth of the World Wide Web. In 2009 it became the first web server to surpass the 100 million web site milestones. Apache is developed and maintained by an open community of developers under the control of the Apache Software Foundation. The application is available for a wide variety of operating systems including Unix, GNU, FreeBSD, Linux, Solaris, Novell Netware, Mac OSX, Microsoft Windows, OS/2, TPF. Apache supports a variety of features, many implemented as compiled modules which extent the core functionality. These can range form server side programming language supports to authentication schemes. Some common language interface supports Perl, Python, Tcl and PHP.

**7.2.2) MYSQL Data Base Server:**

MySQL I is relational database management system which are more than 6 million installations. MySQL is often used in free software projects which required a full featured database management system, such as WordPress,phpBB and othe software built on Xampp software stack. It is also used in very high-scale World Wide Web peoducts including Wikipedia,Google and Facebook. Its popularity for use with web application is closely tied to the popularity of PHP, which is often combined with MySQL.

**7.3) Server End Requirements:**

For server running this software,requirements are:

**Hardware Requirements:**

|  |  |
| --- | --- |
| Resources | Recommended |
| Processor | Intel 3.2GHz |
| Hard Drive | 80 GB of Hard Drive |
| RAM | 512MB |

**Software Requirements:**

Different software requirements for system is

* MS windows 2000 professional.
* Xampp Server.

**7.4) Client End Requirements:**

For client accessing this, requirements are:

**Hardware Requirements:**

|  |  |
| --- | --- |
| Resources | Recommended |
| Processor | Intel 3.2GHz |
| CPU | 80GB of Hard Drive Space |
| RAM | 512 MB |

**Software Requirements:**

Different software requirements for system is

* MS Window 9X
* MS internet Explorer/Netscape Communicator

**REFERENCES**

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