**Web CMS Technologies**

**Web CMS Requirements -**

Before starting the installation of Web CMS, it is recommended to understand the web technologies supporting it. Following is a list of technical requirements to work on Web CMS.

* 1. **Operating System –**
* Linux/Unix
* Windows 2000/ XP/Vista/Me/2003
* Mac OS X
  1. **Webserver –**
* Apache 1.3
* Apache 2
* IIS 5+
* LightTPD 1.4

**3. Scripting Language –**

* PHP
* HTML
* CSS

**4. Browser –**

* Firefox
* Chrome
* IE7+
* Safari
* Opera

**5. Database –**

* MySQL
* PostgreSQL
* SQLite

**6. Storage Space –**

* Min 20MB

**Database –**

1. A database is a structured collection of data. The data are typically organized to model relevant aspects of reality in a way that supports processes requiring this information.
2. Traditional databases are organized by [*fields*](http://www.webopedia.com/TERM/F/field.html), [*records*](http://www.webopedia.com/TERM/R/record.html), and [*files*](http://www.webopedia.com/TERM/F/file.html). A field is a single piece of information; a record is one complete set of fields; and a file is a collection of records.
3. The major purpose of a database is to provide the information system (in its broadest sense) that utilizes it with the information the system needs according to its own requirements.
4. Database needs to be available in a way that a user's action does not need to wait beyond a certain time range before starting executing upon the database.
5. To [access](http://www.webopedia.com/TERM/A/access.html) information from a database, you need a [*database management system (DBMS)*](http://www.webopedia.com/TERM/D/database_management_system_DBMS.html).

**Database Management System -**

1. A Database Management System (DBMS) is a set of programs that enables you to store, modify, and extract information from a database, it also provides users with tools to add, delete, access, modify, and analyze data stored in one location.
2. A group can access the data by using query and reporting tools that are part of the DBMS or by using application programs specifically written to access the data.
3. DBMS’s also provide the method for maintaining the integrity of stored data, running security and users access, and recovering information if the system fails.
4. The information from a database can be presented in a variety of formats.
5. Well known DBMSs include [Oracle](http://en.wikipedia.org/wiki/Oracle_Database), [FoxPro](http://en.wikipedia.org/wiki/FoxPro), [IBM DB2](http://en.wikipedia.org/wiki/IBM_DB2), [Linter](http://en.wikipedia.org/wiki/Linter_SQL_RDBMS), [Microsoft Access](http://en.wikipedia.org/wiki/Microsoft_Access), [Microsoft SQL Server](http://en.wikipedia.org/wiki/Microsoft_SQL_Server), [MySQL](http://en.wikipedia.org/wiki/MySQL),[PostgreSQL](http://en.wikipedia.org/wiki/PostgreSQL) and [SQLite](http://en.wikipedia.org/wiki/SQLite).

### Features Offered by Database Management System –

1. **Query Ability:**   
   A database query language and report writer allows the users to interactively interrogate the database, analyze its data and update the data according to the users data needs.
2. **Security:**   
   It is the feature offered by the database management system in which specific individuals or the groups are allowed to access the information in the database within the organization.
3. **Replication:**  
   Replicates of the original data are created for a distant organization that cannot readily access the original. When the replicates are created between database servers the information remains consistent throughout the database system and users cannot tell or even know which server in the DBMS they are using.
4. **Rule Enforcement:**   
   Certain rules must be applied to the attributes so that the attributes are clean and reliable and these rules should be able to be added and removed as needed without significant data layout redesign.
5. **Computation:**  
   Common computations such as, counting, summing, averaging, sorting, grouping, cross referencing etc are needed by the organizations and the organizations can do such computations with the use of DBMS.
6. **Automated Optimization:**  
   For repeated queries DBMS can adjust themselves to improve the speed of those interactions. DBMS also provides tools for monitoring the performance which allows the experts to make the necessary adjustments after reviewing the statistics collected.