**What is Framework:**

1) It is a broad overview, outline, or skeleton of interlinked items which supports a particular approach to a specific objective, and serves as a guide that can be modified as required by adding or deleting items.

2) **In computer systems**, a framework is often a layered structure indicating what kind of

programs can or should be built and how they would interrelate.

3) **A software framework** is a universal, reusable software platform used to develop applications, products and solutions. Software frameworks include support programs, compilers, code libraries, an application programming interface (API) and tool sets that bring together all the different components to enable development of a project or solution.

* + **JavaScript and Ajax frameworks, Rich Internet application frameworks**
  + **Application framework**, used to implement the standard structure of an application for a specific operating system.
  + **Content management framework**, reusable components of a **Content management system** used to manage web content
  + **Web application framework**, for development of dynamic websites, web applications, and web services
  + **Multimedia framework**, handles media on a computer and through a network

**Frameworks that are currently used or offered by standards companies include:**

* **Resource Description Framework:** It is a set of rules from the World Wide Web for how to describe any Internet resource such as a Web site and its content.
* **Internet Business Framework:** It is a group of programs that form the technological basis for the SAP product.
* **Sender Policy Framework:** It is a defined approach and programming for making e-mail more secure

**Architecture:**

1) Software frameworks consist of **frozen spots** and **hot spots**.

**2) Frozen spots** define the overall architecture of a software system, that is to say its basic components and the relationships between them.

**3) Hot spots** represent those parts where the programmers using the framework add their own code to add the functionality specific to their own project.

4) When developing a concrete software system with a software framework, developers utilize the hot spots according to the specific needs and requirements of the system.

**Content Management Framework (CMF):**

1) **A content management framework (CMF)** is a system that facilitates the use of reusable components or customized software for managing web content. It shares aspects of a [web application framework](http://en.wikipedia.org/wiki/Web_application_framework) and a [content management system](http://en.wikipedia.org/wiki/Content_management_system) (CMS).

2) **A web application framework (WAF)** is a [software framework](http://en.wikipedia.org/wiki/Software_framework) that is designed to support the [development](http://en.wikipedia.org/wiki/Web_development) of [dynamic websites](http://en.wikipedia.org/wiki/Dynamic_web_page), [web applications](http://en.wikipedia.org/wiki/Web_application) and [web services](http://en.wikipedia.org/wiki/Web_service).

3) The CMF allows the authors to manage the content on a real-time basis as the information is generated or as the content evolves. It also ensures systematic archiving of earlier content which can be used for future references.

***Examples of CMF:***

**Name Technology**

Apache Sling Java, JSP

Catalyst Perl

Drupal PHP, MySQL

Joomla PHP, MySQL

Plone Python

WordPress PHP, MySQL

**Advantages of CMF:**

* **No software to buy** You don't need to buy any web publishing software. Edit your web site directly on the server.
* **Nothing to install on your computer** Edit your web site using your web browser such as Internet Explorer or Netscape. There is no need to install and configure any HTML editing tools on your computer.
* **Plain text web publishing** You don't have to be an HTML expert to publish your pages: Just type your content in plain text right on the server.
* **Upload files from your browser** Simply navigate to the file on your computer and upload it (such as images, sound files, movies, etc.) with your browser. There is no need to use FTP client software.
* **Automatic page linking** Link pages to the right section of your web site using key words. You can also link the same page to multiple sections.
* **Collaborative publishing** Content of your web site can be contributed by multiple authors, each with his or her own unique login.
* **Staging area before publishing** "Preview" contents of documents and other files before publishing to the general public. Just as the "Print preview" feature of your word processor lets you review documents before you commit to printing, the CMF server lets you preview documents just as they will appear to the general public.
* **Editorial review** Control publishing privileges: Contributors may not publish to the general public without your permission. You can assign publishing privileges to contributors or you can reserve the right to review contributed content.
* **Built-in search engine** The built-in search engine automatically and in real-time indexes all files in your web site.