

XML APPLICATIONS

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ABSTRACT

In this paper ,it is tried to give a review of XML (Extensible Markup Language),and its various application and how these applications are useful and how they are differnet from the HTML.

Keywords: XML,XHTML,HTML,XML applications

I. INTRODUCTION

Unlike HTML,where there are fixed set of elements to describe structure of data,XML is like SGML (Standard Markup Language,i.e it is meta-language or in other words we can say it is a language to describe other languages, Authors can define their own tags using XML.it is formal specification of W3C.

Content structure is defined by XML,it does not define formatting,Depending upon where the content is needed,the document can be transformed into desired formt like HTML,WML News-ML.XSLT Stands for extensible Sytlesheet language transformation.Software programs like XSLT are used to transform XML document nito another text based output format,CSS(Cascading Style sheets)can also be used to transforming XML into HTML.

II. COMMON TERMS

DTD: (Document Type Definition) Formal definition of the elements, structures, and rules for marking up a given type.element and strucutres of SGML document is called DTD . DTD can be stored at the beginning of a document or can be stored externally in a separate file. DTD is written in SGML which is a precursor to XML DTD was the first means of specifying XML syntax.. DTD is still frequently used today.

Schemas: Description of the structure and rules a document must satisfy for an XML document type is called a schema Formal declaration of the elements that make up a document is also included. XML document become unvalidIf it doesnot obey the syntax of its associated DTD or Schema

XSLT: XSLT is designed for use as part of XSL, which is a stylesheet language for XML.

It stands for Extensible stylesheet language transformation .it is a language for transforming XML documents intoother XML documents.

XPath: Based on a path through the document's logical structure or hierarchyXPath is a language to describes a way to locate and process items in XML documents by using an addressing syntax.

DOM: DOM is the l World Wide Web Consortium (W3C) standard for representing structured documents in a platform- and language-neutral manner

Document Object Model (DOM) is a form of representation of structured documents as an object-oriented model. DOM is the official World Wide Web Consortium (W3C) standard for representing structured documents in a platform- and language-neutral manner. The DOM is also the basis for a wide range of application programming interfaces, some of which are standardized by the W3C.

SAX: SAX is an Event-driven programmatic access to the XML file. It provides a simple Java interface useable by many Java parsers. SAX parsers and interfaces are included in the java API org.xml.sax.

III. XML DOCUMENT STRUCTURE

Xml doesn't qualify to be programming language, as programming language consists of grammar rules and its own vocabulary which is used to create computer programs.

The below diagram depicts the various syntax rules of an xml document

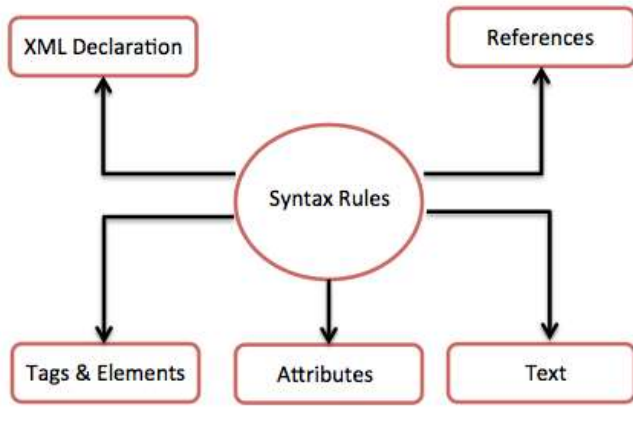


FIGURE-1 SYNTAX RULES OF XML DOCUMENT

XML Declaration: The XML document can optionally have an XML declaration, which specifies the version and encoding in the document

Tags and Element: An XML element has several XML elements and tags. They are names enclosed by triangular brackets,

Attributes: Using a name/value pair attribute can specify single property of the element

XML references: *References* usually allow you to add or include additional text or markup in an XML document

XML Text: The names and attributes are case sensitive, All XML files should be saved as UTF8 or UTF16

IV. DOCUMENTUM XML APPLICATION

Documentum XML Application manages the XML documents in the repository. Rules for validating an XML document and managing it during repository operation are contained in Documentum XML Application. Style sheets and other supporting documents can also be stored along with an XML application. To reflect the needs and rules of enterprise XML applications are user-defined, Multiple XML applications can be contained in a repository.

The documents that define a particular XML application are identified through its properties in the XML. XML application folders are stored in the repository in "System/Applications". Two main ways to validate XML documents are DTD and Schema. In Documentum, XML. Rules for importing, storing and organizing content are automated using the application. XML Configuration file (of type dm_xml_config) and a dtd file (of type dm_document) are needed by the simplest XML Application. Both of these objects need to be in a XML Application folder (type dm_xml_application) in the \System\Applications folder. More complex XML Applications can have multiple dtd files, stylesheets, html files, and entity files. They can be there in complex XML Applications which are usually stored in the Application Support Documents folder under the XML Application folder. These files are optional and aren't necessary for proper validation, and are only used for viewing and checkout operations.

Two third party XML editing applications are integrated with Documentum like Arbortext Epic and Corel (SoftQuad) XMetal. How XML documents are stored, imported, checked in, exported, and checked out of the repository is controlled by XML application. It can set permissions, set a binding rule, or attach a lifecycle to the XML content. Based on information extracted from the XML, external variables, or expressions set by custom Java code. It can assign metadata to repository objects. In a prototypical XML application that chunks XML content, after importing or checking in a single XML document, a user sees the document represented in the repository as a virtual document, with a tree-like structure showing the XML container as the root and any objects that were chunked by the XML application as child components.

V. USE OF XML APPLICATIONS

Following is a list of benefits of using Documentum XML Applications for Content Management:

- a) Separate groups in the company to manage separate chunks of content, with different
- b) Chunks of content can be shared with other authors or departments in a non-proprietary file format.
- c) Reuse chunks of content in more than one document or publish it at different location
- d) Automate processing of XML content chunks using features available in the standard EMC | Documentum content management system, such as source control, metadata, document lifecycles, workflows, and security.
- e) You use XML as a wrapper for non-XML documents in order to assign metadata to those documents in the repository.
- f) Create XML files used to create folders, assign properties, without creating any content chunks.
- g) Construct Web pages dynamically with XML content chunks.

VI. DEFAULT XML APPLICATION

The Default XML Application is located in the folder "System/Applications/Default XML Application". Simple application that handles XML documents if there is not a matching XML is the default XML application and has only one rule about how to recognize and process externally parsed entities. You can modify the Default XML Application Configuration file for this default to add you own general processing rules.

VII. DETECTION OF XML APPLICATION

To determine which XML application applies to the document when a document is imported or checked in to the Repository, there is an algorithm. used to The XML Application is specified in the processing instruction in the prolog of the XML document of the following type:

```
<?dctmxml_app="application_name"?>
```

If only a single XML application matches, then there is no problem that application is used but If multiple applications matches a dialog listing all the choices is presented to the. The first match returned by the query is used, if the user fails to make a choice or if the choice is being made programmatically and no choice is specified in the application

The following processing instruction will halt the algorithm:

```
<?dctmxml_app="ignore"?>
```

Add this line if you do not want XML processing to occur for a particular file. This is the only way currently to turn XML processing off. The dtd System ID, dtd Public ID and root element are obtained from the XML document itself. We query for XML applications that match. If none of the above apply, then the Default XML Application is used.

VIII. CREATING XML APPLICATION

These tasks should be performed before creating your XML application, to get a valid XML application and all objects will be correctly installed into the target Repositories). To make sure that your XML application is valid and all objects will be correctly installed into the target Repositories:

1. In the XML application configuration file into the DocApp. Insert all objects specified. This step makes your DocApp portable.
2. In the XML application configuration file, all the specified initial states must exist in the corresponding document lifecycles.
3. In the XML application configuration file no document lifecycle with the same names exist in the same location. To ensures that the XML application uses the correct document lifecycle, this step is necessary otherwise, if you have duplicate document lifecycles
4. You can also specify the object ID of the appropriate document lifecycle in the XML application configuration file, but when you install it to another Repository, you will need to change its object ID to the new one.

5. Make sure that the document lifecycles specified in the XML application configuration file are the originals.
6. Make sure that the alias set name and the alias names specified in the XML application configuration file are the same names as those included in the DocApp; alias names are not validated.

IX. CONCLUSION

In this paper,It is tried to provide a basic overview of the XML application.this paper will help a novice understand some of the concepts of XML web application,why it is needs ,how they are created and what are the important points to be taken into consideration while creating a xml application.

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