EP Practical-1

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pre-lab

1. XML - Extensible Markup Language
2. DTD - Document Type Definition
3. XSD - XML schema Definition
4. Rules for well formed XML
   1. It must begin with XML Declaration
   2. It must have unique root element
   3. All start tags of XML document must match end tags
   4. Case sensitive
   5. All elements must be closed
   6. All elements must be properly nested
   7. All attribute values must be quoted
   8. XML entities must be used for special characters.

5. a) XML Naming Rules

   XML elements must be following these naming rules:

   → Element names are case-sensitive
   → Element names must start with a letter or underscore.
   → Element names cannot start with the letters xml (or XML, or Xml, etc)
   → Element names can contain letters, digits, hyphens, underscores and periods
   → Element names cannot contain spaces

b) XML Element

An XML element is everything from (including) the element's start tag to (including) the element's end tag

<price> 29.99 </price>

An element can contain

text
attributes
other elements
or mix of the above

c) XML attributes

It will provide additional information about the element.

d) <! DOCTYPE >

Internal DTD

<! DOCTYPE <root-element-name> [
  <! ELEMENT element-name (child)>
]>

External DTD

1. private

<! DOCTYPE root-element-name SYSTEM "dtd file name">

2. public

<! DOCTYPE root-element-name PUBLIC "link for dtd file">

e) <! ELEMENT >

<! ELEMENT element-name (child) or
element-name (child1, child2.....) >

f) <! ATTLIST element-name attribute-name
CDATA #IMPLIED >

g) Simple Type

It allows you to have text-based elements. It contains lesser attributes, child elements and cannot be left empty.

h) complexType

It allows you to hold multiple attributes and elements. It can contain additional sub elements and can be left empty.

6. a) CDATA

character Data - string
which cannot be parsed by XML parser
(NO entities allowed)

b) PCDATA

parseable character Data
which can be parsed by XML parser
(Entities allowed)

c) Default value

If no value is given to the attribute then default value is considered as attribute value

d) #REQUIRED

There is no default value for this attribute but value must be assigned

e) #IMPLIED

There is no default value for this attribute

and that the attribute is optional

j) #FIXED

The value must be the value provided.
The value part represents the actual value.