

Web Basics - XML

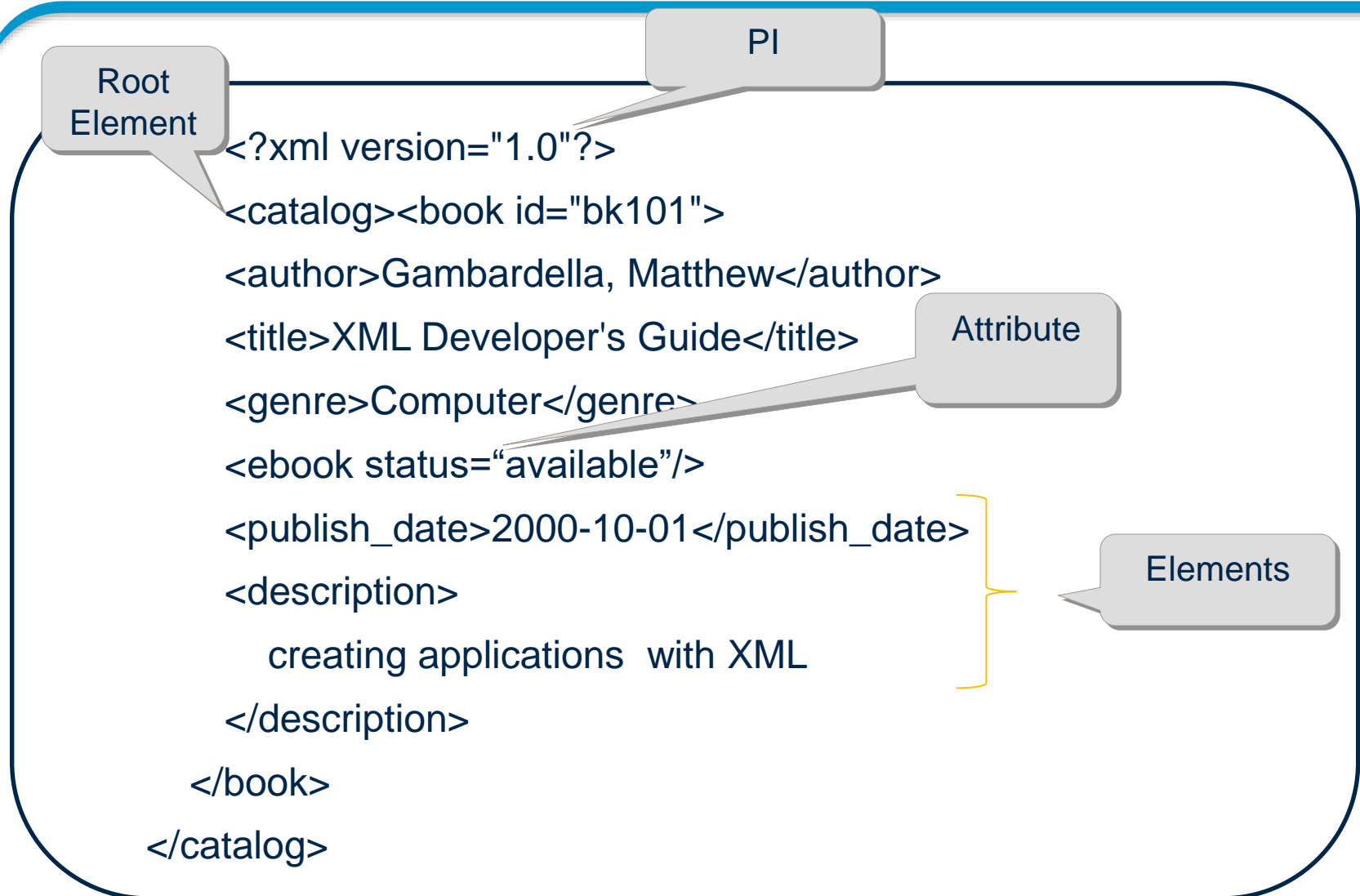
Lesson 2: Anatomy of an XML Document

Lesson Objectives

- In this lesson, you will learn:
 - Logical and physical structure of an XML file
 - Parts of XML file like:
 - Elements
 - Attributes
 - Entities
 - Processing instructions



A Sample XML Code



Understanding the Sample XML Code

- Let us now understand the different parts of the XML file:
- XML Declaration
- Root Element
- An Empty Element
- Attributes

Using XML Markup

- Tags carry the smallest unit of meaning signifying structure, format, or style of the data
- They are always enclosed within angled brackets, that is “< >”. Tags are case-sensitive
- The tags <book>, <Book>, and <BOOK> carry different meanings and cannot be used interchangeably
- All tags must be paired so that they have a start <book> and an end </book>
- Tags when combined with data form elements

Using XML Markup

- Attribute Markup:
 - It is used to attach information to the information contained in an element.
 - General form for using an attribute is as follows:
 - `<element-name property="value">`
 - An attribute value must be enclosed in quotation marks.
 - You can either use single quote or double quote. However, you cannot mix the two in the same specification.

Using XML Markup

■ Naming Rules:

- A name consists of at least one letter: a to z or A to Z
- If the name consists of more than one character, then it may start with an underscore (_) or a colon (:)
- The initial letter can be followed by one or more letters, digits, hyphens, underscores, or full stops

Using XML Markup

- Comments:
- Comments have the following form:
- `<!-- This is comment text -->`
- Use the comment start tag and end tag correctly.
- Everything in the comment text will be completely ignored by the XML processor
- Following comment is therefore quite safe:
- `<!-- These are the declaration for the <title> and <body> -->`

Using XML Markup

- Predefined Entities:

Character	Replacement
&	& or & #38
'	' or '
>	> or >
<	< or < #60
"	" or "

A Well-formed XML document

- A well-formed XML document simply includes markup pages with descriptive tags
- A well-formed XML does not need a DTD, but should conform to XML syntax
- If all tags are correctly formed and follow XML guidelines, then the document is a well-formed XML

Syntax Rules for XML

- An XML document
 - Is case sensitive
 - Has a single root element
 - Has all matching tags
 - XML Elements should be properly nested
 - All attributes are quoted
 - White spaces are not ignored
 - May or may not have a (DTD) Document Type Description to describe the document

Demo

- A sample XML Document:
 - Example1: Note.xml
 - Example2: Greeting.xml
 - Example3: musicians.xml



Summary

- In this lesson, you have learnt the following:
 - XML has specific naming rules which describes names you can use for its markup objects, that is elements



Review Question

- Question 1: XML document must have one ____.
- Question 2: A comment in XML document is written as:
 - Option 1: <!-- ... -->
 - Option 2: /*.....*/
 - Option 3: //
- Question 3: ____ are storage units in the XML document.

