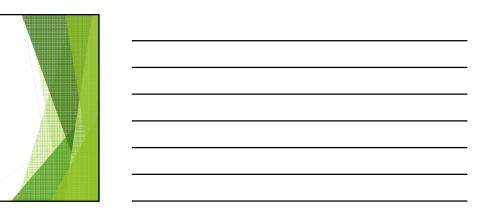
Front End Development Workshop Module 3 - Introduction to XML	Rege - Review 3/25/2015
 Nobe Ectimated	MESC. 110-110-11 37 231 2013

Index

- ▶ Review HTML5, CSS3
- ▶ Introduction What does XML stands for?
- ▶ XML Environment How XML is used?
- ▶ Structure and Syntax How does XML work?
- ▶ Combining XML CSS, JavaScript, XSL

Review

- ▶ HTML5: designed to display data
- ▶ CSS3: build layout to display data
- ▶ What about XML?



Introduction XML

- ▶ XML EXtensible Markup Language
- ▶ Independent tool for carrying data
- ▶ Markup language as HTML

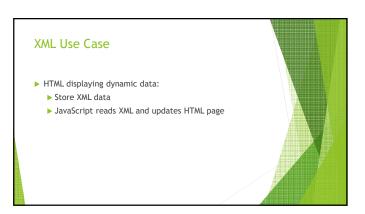
XML x HTML			
		XML	
Function	Display data	Describe data	A
Language	Predefined tags	Developer defined tags	
Errors	Allowed	Never allowed	

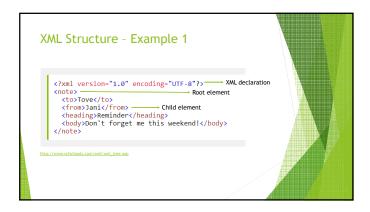
Why XML?

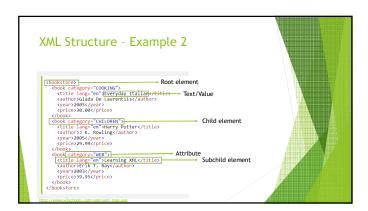
- ▶ Data organization
- ▶ Data provider (more than one page may need the same data)
- ► Example: RSS
 - ▶ Reddit
 - ▶ Newspapers

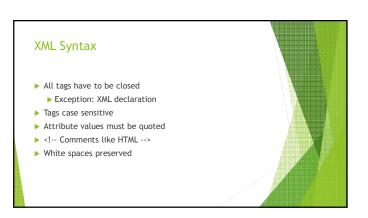
XML Examples	
► Mostly are self descriptive	
<pre><note> <to>to>Towe</to> <from>Jani</from> <heading>Reminder</heading> <body>Don't forget me this weekendl</body> </note></pre>	
http://www.wischools.com/emi/emi_whatis.asp	

XML issue ➤ XML needs an interpreter ➤ Solution can be either ➤ A language to display data ➤ A language to process data









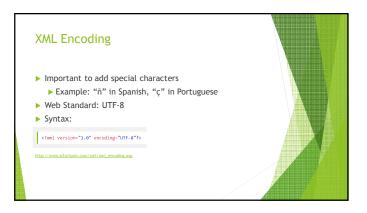
XML Entity References ➤ Special characters generate error ➤ 5 pre-defined entity in XML Entity References Character < < (less than) > > (greater than) & & (ampersand) ' ' (apostrophe) " " (quotation mark)

XML Tag Also called elements Names must start with letter/underscore Only "XML" is reserved Empty elements: No text/value May have attribute(s) Self-closing tags

Tips for XML development Elements Avoid special characters Example: ":", ".", "ia" Be consistent in naming style Example: camelCase, PascalCase Use elements rather than attributes Use attributes for metadata



XML Namespace	
▶ Inform origin of namespace	
xmlns tag	
Structure: xmlns:prefix="URI"	
 Useful when frameworks require 	
\frac{\text{root xmlns:h="http://www.w3.org/IR/html4/"}}{\text{xmlns:f="http://www.w3schools.con/furniture"}} → Option 1	
distable xmlns:h="http://www.w3.org/TR/htmlA/ >>> Option 2	

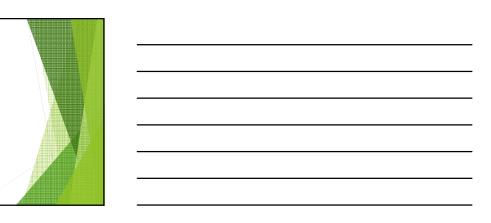


Combining XML

- ▶ Many ways to display data
 - ► CSS
 - ▶ JavaScript
 - ► XSLT (Web Standard)

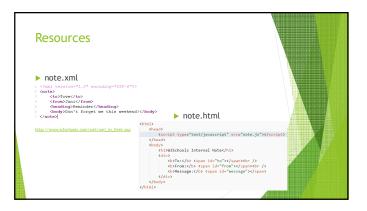
XML+CSS Activity

- ► Create an XML file (quotation.xml)
- ▶ Write some quotations
- ► Create a stylesheet to display (quotation.css)
- ► Link CSS file with XML
- ▶ Be creative and have fun!



DTD and Schema ► Standardization for XML entities ► Describe document content ► DTD: identified by <!DOCTYPE > tag ► Schema: identified by <xs:element > </xs:element> ► Not usual

Display XML - JavaScript Example ▶ Uses DOM (Document Object Model) if (window Multtphequest) (// code for 1E7, Firefox, chrome, Opera, Safari xxnihttp-new ActiveXDbject("Microsoft.XMLHTTP"); winttp-poen('CST", ince.vail. false); xxnihttp-new ActiveXDbject("Microsoft.XMLHTTP"); xxnihttp-new ActiveXDbject("Microsoft.XMLHTTP"); xxnihttp.new(); xxnihttp.responseXML; document.getilementsyfa(to), innerHTML= xxniboc.getilementsyfa(to), innerHTML



XML+JavaScript Activity

- ▶ Download "cdCatalog.html"
- ► Create a <CATALOG> tag
 - ▶ Include some <CD>s you like
 - ► Each <CD> must have, at least:
 - ►An <ID>: 1, 2, 3,...
 - ►An <ARTIST> name
 - ▶The <NAME> of the CD

XSLT Language ▶ eXtensible Stylesheet Language Transformation (.xsl) ▶ Better than CSS ▶ Edit output elements

▶ Root element:

▶ Sort them

<xsl:\stylesheet\version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"> <xsl:transform version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

XSLT Structure XSLT Structure [Zhall versions*1,0° accoding**UT-8°) cosi:styleshow version*1,0° malns:xsla**http://www.ub.org/1999/SL/Transfore*) cosi:stignosiate matche*/*) ditally display (D collections/19) ctable bonder**1') ctr bgcolor**Byacd2') ctbolistic/tib ctslate/tib ctslat

XML+XSL Activity

- ▶ Use CD catalog created before (cdCatalog.xml)
- Create a stylesheet for it (cdCatalog.xsl)
- ▶ Link XSL with XML
 - <?xml-stylesheet type="text/xs1" href="cdcatalog.xs1"?>
- ▶ Open XML file

Conclusion

- XML:
 - ▶ Does not substitute HTML
 - ▶ Stores and organizes data
 - ► Can be used in many ways

Questions

▶ NSBE Lehman College

Student Life Building, Room 205A nsbelehman@gmail.com Regular meetings

- ► Tuesdays, 3-4pm
- ► Thursdays, 5-5:50pm



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