Zarqa University

Faculty: Information Technology Department: Internet Technology Course title: XML Technology (1504381)



Instructor:

Lecture's time Semester Office Hours

Course description:

This course provides an introduction and overview of XML, including writing well formed and valid XML, XML schemas such as DTD and DOM, and some advance topics in XML like XPath, LinQ to XML and others.

Aims of the course:

The main objective of this course is to enrich the web development skills and tools for web students, with the appropriate web data representation and processing language, i.e. XML.

Intended Learning Outcomes: (ILOs)

Upon successful completion of this course, students will:

- A. have an understanding of extensible markup language (XML), its functionality and use.
- B. be able to identify basic concepts of XML be able to create, manipulate, parse, and use style sheets.
- C. to format well-formed XML documents as well as validate them using DTDs and XML schemas.
- D. be able to transform XML documents using XSLT
- E. be able to parse XML with database libraries such as LINQ

Course structures:

Week	Credit Hours	ILOs	Topics	Teaching Procedure	Assessment methods	
1	3	A	WHAT IS XML?	Presentation	Diagnostic tests to identify	
			An introduction to XML methods and		the students level and areas	
				techniques,	of weakness	
				Sources of	Formal (stage) evaluation	
				information	a) Class Participation	
				and	b) Ist Exam	
				Instructional	c) 2nd Exam	
				Aids	d) Activity file	
2, 3	3	В	WELL-FORMED XML	Presentation	Diagnostic tests to identify	
			Creating XML in a Text Editor	methods and techniques,	the students level and areas of weakness	
			Advanced XML Parsing	Sources of	Formal (stage) evaluation	
				information	a) Class Participation	
			The XML Infoset	and	b) Ist Exam	
				Instructional	c) 2nd Exam	
				Aids	d) Activity file	
4	3	В	XML NAMESPACES	Presentation	Diagnostic tests to identify	
			D.C M	methods and	the students level and areas	
			Defining Namespaces	techniques,	of weakness	
			How Do You Choose a Namespace	Sources of	Formal (stage) evaluation	
			•	information	a) Class Participation	
			When to use Namespaces	and	b) Ist Exam	
			Common Namespaces	Instructional Aids	c) 2nd Exam d) Activity file	



5	3	С	Document Type Definitions	Presentation	Diagnostic tests to identify
			Working with DTDs	methods and techniques,	the students level and areas of weakness
				Sources of	Formal (stage) evaluation
			Anatomy of a DTDs	information	a) Class Participation
			DTD Limitations	and	b) Ist Exam
			DID Emitations	Instructional	c) 2nd Exam
				Aids	d) Activity file
6,7	3	С	XML SCHEMAS	Presentation	Diagnostic tests to identify
				methods and	the students level and areas
			Benefits of XML Schemas	techniques,	of weakness
			Defining XML Schemas	Sources of	Formal (stage) evaluation
				information	a) Class Participation
			Creating a Schema from Multiple	and	b) Ist Exam
			Documents	Instructional	c) 2nd Exam
			Documenting XML Schemas	Aids	d) Activity file
8,9	6	С	Extracting Data from XML	Presentation	Diagnostic tests to identify
0,5			Document Models:	methods and	the students level and areas
				techniques,	of weakness
			Representing XML in Memory	Sources of	Formal (stage) evaluation
			The XPath Language	information	a) Class Participation
				and	b) Ist Exam
				Instructional	c) 2nd Exam
				Aids	d) Activity file
10,11	3	D	XSLT	Presentation	Diagnostic tests to identify
			VCI T as a Dealerstive	methods and	the students level and areas
			XSLT as a Declarative	techniques, Sources of	of weakness
			Language	information	Formal (stage) evaluation a) Class Participation
			Foundational XSLT Elements	and	b) Ist Exam
				Instructional	c) 2nd Exam
				Aids	d) Activity file
12	3	Е	XML AND DATABASES	Presentation	Diagnostic tests to identify
				methods and	the students level and areas
			Analyzing which XML Features	techniques,	of weakness
			N 11' D 1	Sources of	Formal (stage) evaluation
			are Needed in a Database	information	a) Class Participation
				and	b) Ist Exam
				Instructional	c) 2nd Exam
10.11				Aids	d) Activity file
13,14	3	E	LINQ TO XML	Presentation	Diagnostic tests to identify
			EXTRACTING DATA FROM	methods and techniques,	the students level and areas of weakness
			LATRACTING DATA FROM	Sources of	Formal (stage) evaluation
			AN XML DOCUMENT	information	a) Class Participation
				and	b) Ist Exam
				Instructional	c) 2nd Exam
				Aids	d) Activity file
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References:

A. Main Textbooks:

Beginning XML, *Joe Fawcett, Liam R.E. Quin, Danny Ayers*, 2012, 5th Edition, John Wiley & Sons, Inc.



Assessment Methods:

Methods	Grade	Date
first Exam	20%	
Second Exam	20%	
Assignments (Reports / Quizzes/ Seminar / Tutorials)	10%	
Final Examination	50%	

