

Learning Guide Unit 6

Site: University of the People
Course: CS 2205 Web Programming 1 -
AY2021-T5
Book: Learning Guide Unit 6
Printed
by: Nadine Lynch
Date: Wednesday, 18 August 2021, 8:53
PM

Description

Learning Guide Unit 6

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Overview

Unit 6: XML

Topics:

- Basic syntax of XML
 - Transporting and storing data with XML
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Learning Objectives:

By the end of this Unit, you will be able to:

1. Develop XML Schema to express precise type information for an XML document.
 2. Define the role of XML in web technologies.
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Tasks:

- Peer-Assess Unit 5 Assignment
- Read the Learning Guide and Reading Assignments
- Participate in the Discussion Forum (Post, Comment and Rate)
- Complete and submit Unit 6 Assignment
- Take the Self-Quiz

Introduction

The Web is an interwoven "network" comprised of stored data and software applications. The web sites of today must provide data to an increasingly wide variety of software applications. Literally everything that takes place over the Web involves some form of data exchange. Machines cannot start processing information until they receive the data in the exact format they are "expecting". XML's primary objective is to provide a standardized data storage format capable of being "understood" and processed by all software programs.

Reading Assignment

Read the following:

w3schools. (n.d.). *XML tutorial*. Retrieved from <http://www.w3schools.com/xml/default.asp>

Video Resources

Banas, D. (2010, May 9). *Learn XML tutorial* [Video]. Retrieved from



(6:46).

Discussion Assignment

What is AJAX? What are the main characteristics of this technology? What are the existing standards that AJAX is based on? Explain how AJAX works.

Programming Assignment

Exercise 1:

Write an XML document describing the exercises in this document: the root element is `<exercises>`. The root has an attribute `number` that has value `1`. The root element has three child elements; `<date>` that contains as text the date of the exercise, and two `<item>` elements for the first two exercises (1--2). Write some text in the `<item>` elements.

Exercise 2:

Write an XML document describing a person: name, occupation, address and hobbies. Please do not use your own information, you can use fake data. Decide on suitable element names and nesting. Check your document for well-formedness.

Exercise 3:

Draw a tree that represents the XML document you created in task 2.

Exercise 4:

This is the books.xml file

```
<?xml version='1.0'?>
```

```
<!-- This file represents a fragment of a book store inventory database -->
```

```
<bookstore>
```

```
    <book genre="autobiography" publicationdate="1981" ISBN="1-861003-11-0">
```



```

<title>The Autobiography of Benjamin Franklin</title>
<author>
  <first-name>Benjamin</first-name>
  <last-name>Franklin</last-name>
</author>
<price>8.99</price>
</book>
<book genre="novel" publicationdate="1967" ISBN="0-201-63361-2">
  <title>The Confidence Man</title>
  <author>
    <first-name>Herman</first-name>
    <last-name>Melville</last-name>
  </author>
  <price>11.99</price>
</book>
<book genre="philosophy" publicationdate="1991" ISBN="1-861001-57-6">
  <title>The Gorgias</title>
  <author>
    <name>Plato</name>
  </author>
  <price>9.99</price>
</book>
</bookstore>

```

Using books.xml as a model, create a small xml file for a student's program of study form called programOfStudy.xml. It should capture the following data:

- In the Fall 2008 semester the student plans to take two classes to satisfy her General Education requirements, PHIL 101 to satisfy Goal 8 and ECON 201 to satisfy Goal 11. She also has to take one core course, MGT 217, and two major courses, CIS 120 and CIS 403.
- In the Spring 2009 semester she plans to take two additional core courses, MGT 261 and MKTG 325, as well as three major courses, CIS 220, CIS 407, and CIS 490.

Learning Journal

Learning Journal Instructions

Why do it?

Maintaining a journal serves several purposes:

1. A means of communication, conversation (e.g., between material and yourself, yourself and instructors).
2. Provides regular feedback between you and the instructors and helps to match expectations.
3. Platform for synthesis of knowledge and ideas
4. Help develop critical thinking
5. Helps to elicit topics of interest, challenging topics that need improvement, etc.

What to write?

First write a brief summary of the contents of a lecture, lab activity, group discussion or reading material. Then reflect upon these activities. Record your own thoughts, ideas, responses and reactions to any of the above activities. Make notes about concepts, questions you have, and any confusion that may arise. Use the journal to explore possible solutions to problems being raised in class or alternative activities to the ones presented in class. Record new insights and problem solving strategies realized during discussions with fellow students and instructors. The journal reflects your own thoughts and ideas. Be as original and critical (constructive) as you can.

Some additional ideas:

Describe any feedback you received or any specific interactions you had.

Discuss how they were helpful Describe your feelings and attitudes What surprised me or caused me to wonder?

What happened that felt particularly challenging? Why was it challenging to me?

What skills and knowledge do I recognize that I am gaining?

What am I realizing about myself as a learner?

In what ways am I able to apply the ideas and concepts gained to my own experience?

What not to do:

Do not copy and paste any material from the discussion forum, your own assignment, or any other source. The entries in the journal must be your own words.

When do I use the journal?

You are expected to use the journal for each week of the course.

How will it be graded?

Each weekly journal must be at least 300 words long. Please use proper grammar and keep your writing on the class topic. Deductions from a full credit on this assignment would be taken if you copy and paste content. As long as you write down your own reflection about the learning activities, deductions will not be taken. You will receive a single grade for each week and the grades will count toward your final grade in the course.

Self-Quiz

The Self-Quiz gives you an opportunity to self-assess your knowledge of what you have learned so far.

The results of the Self-Quiz do not count towards your final grade, but the quiz is an important part of the University's learning process and it is expected that you will take it to ensure understanding of the materials presented. Reviewing and analyzing your results will help you perform better on future Graded Quizzes and the Final Exam.

Please access the Self-Quiz on the main course homepage; it will be listed inside the Unit.

Checklist

Peer-Assess Unit 5 Assignment

Read the Learning Guide and Reading Assignments

Participate in the Discussion Forum (Post, Comment and Rate)

Complete and submit Unit 6 Assignment

Make entries to the Learning Journal

Take the Self-Quiz