ACBI
Australian College of
Business Intelligence

Student Assessment Guide:

ICTWEB441-ICTWEB518 Display data from XML document on a web page using JavaScript

Copyright 2024

Version: 24.0

Date Modified: April 2024

Disclaimer:

The Australian College of Business Intelligence does not invite reliance upon, nor accept responsibility for, the information it provides. The Australian College of Business Intelligence makes every effort to provide a high-quality service. However, neither the Australian College of Business Intelligence, nor the providers of data, gives any guarantees, undertakings or warranties concerning the accuracy, completeness or up-to-date nature of the information provided. Users should confirm information from another source if it is of sufficient importance for them to do so.

Contents

1. Assessment Information

Purpose of assessment

This assessment assesses your knowledge and skills in:

- designing and building an extensible markup document
- producing client-side scripts for creating interactive websites

What you are required to do

For this assessment, you are required to complete seven tasks:

- Task A – Perform knowledge test
- Task B – Perform requirements analysis on the website and xml document
- Task C – Design the website and xml document
- Task D –Develop the website and xml document
- Task E – Test the website and xml document functionality and security
- Task F – Feedback

All tasks of this assessment require you to use the provided case study information relating to the Bryan's Café.

Competencies being assessed

Elements

To achieve competency in this unit, the learner must demonstratetheir ability to:

1. Establish and analyse requirements for web documents and xml documents
2. Design and develop web documents and xml documents
3. Test, debug and finalise scripts and xml documents

Performance Evidence

Evidence of the ability to:

- design and produce a script according to web document functionality requirements and organisational procedures. With this, the learner must be able to:
  - produce dynamic web page documents, considering accessibility of web page
  - test and debug web document functionality and confirm web document is secure
  - document and seek approval from required personnel.
- produce at least two (extensible markup language) XML documents according to technical requirements. With this, the learner must be able to:
  - test and validate XML document on at least two different browsers and at least two different devices
  - comply with applicable organisational policies, procedures and standards.

Knowledge Evidence

The learner must be able to demonstrate knowledge of the following:

- basic principles behind open platform programming
- client-side scripting and its application to dynamic web page design, including:
  - events and event handlers
  - internet operation related to clients
  - internet protocols
  - simple hypertext markup language (HTML)
  - applicable standards
- purpose and differences between server-side and client-side scripting
- standards associated with programming documentation
- script testing methodologies
- cyber security procedures and protocols
- organisational procedures relevant to producing client-side scripts.
- extensible markup language
- unified-modelling language
- software implications for XML programming
- standards impacting XML programming
- design methodologies including software engineering life cycle
- document type definition (DTD)
- XML document components including entities, elements and their attributes
- debugging methods
- document validation and testing procedures
- organisational policies, procedures and standards applicable to building XML documents.

For further information on the competencies of this unit, please refer to:

- https://training.gov.au/Training/Details/ICTWEB441
- https://training.gov.au/Training/Details/ICTWEB518

Important resources for completing this assessment

To complete this assessment, please refer to the following resources provided on Moodle:

- ICTWEB441 Student Guide
- ICTWEB441 self-study guide
- ICTWEB518 learner guide
- ICTWEB518 self-study guide
- ICTWEB441_518Case study
- ICTWEB441_518Marking Guide
- Assessment templates

A note on plagiarism and referencing

Plagiarism is a form of theft where the work, ideas, inventions etc. of other people are presented as your own.

When quoting or paraphrasing from a source such as the Internet, the source must be recognised. If quoting from a source, make sure to acknowledge this by including “quotation marks” around the relevant words/sentences or ideas. Note the source at the point at which it is included within the assessment, such as by using a citation. Then list the full details of the source in a ‘references’ section at the end of the assessment.

All sources used for the assessment should be detailed in a ‘references’ section. It is advisable to never copy another person’s work.

Instructions for completing this assessment

Answer the questions below using the spaces provided:

- Answer all parts of each question
- Use your own words and give examples wherever possible
- The quality of your answer is more important than how long it is
- Enter your answers in this document

You may use various sources of information to inform your answers, including your resources provided by ACBI, books, and online sources. You must acknowledge and cite your sources.

Submission via Moodle

Please refer to the “Instructions for Submitting Your Assessment”found within the unit course page on Moodle.

NOTE: Please take care to follow all instructions listed. Assessments uploaded with a draft status on Moodle may not be graded.

2. Assessment Coversheet

Candidate Name:			
Student ID:			
Contact Number:			
Email:			
Trainer / Assessor Name:			
Qualification:	ICT50220 Diploma of Information Technology – Front end web development		
Units of Competency:	ICTWEB441 Produce basic client-side script ICTWEB518 Build a document using extensible markup language		
Assessment Tasks:	☐ Task A – Perform knowledge test ☐ Task B – Perform requirements analysis on the website and xml document ☐ Task C –Design the website and xml document ☐ Task D – Develop the website and xml document ☐ Task E – Test the website and xml document ☐ Task F– Feedback		
Due Date:		**Date Submitted:**	
Declaration:	I have read and understood the following information at the beginning of this assessment guide (please tick):		
	☐ Assessment information ☐ Submitting assessments ☐ Plagiarism and referencing		
	I declare this assessment is my own work and where the work is of others, I have fully referenced that material.		
Name (please print):			
Candidate signature:			
Date:			

3. Assessment Questions

Task A - Perform knowledge test

1.List three basic principles upon which open platform programming is based.
Write your answer here

2.Describe each of the following terms that relate to client-side scripting and its application to dynamic web page design.
Write your answer in the table below

Term	**Description**
Events	
Event handlers	
Internet protocols	
Hypertext markup language (HTML)	
A standard that applies	

3. Explain the purpose and difference of server-side and client-side scripting.
Write your answer here

4.Describe two standards relevant to programming languages in general. *Answer in 40-80 words.*
Write your answer here

5. List two methods that can be used to test scripts within a website. *Answer in 40-80 words.*
Write your answer here

6. Describe the purpose of extensible markup language. *Answer in 40-80 words.*
Write your answer here

7. Describe unified modelling language (UML). *Answer in 40-80 words.*
Write your answer here

8. Give an example of a software that can be used for creating XML documents. *Answer in 40-80 words.*
Write your answer here

9. Complete the following table, listing two standards that impact XML programming and how.
Answer in 40-80 words.

Write your answer here

Standards that impact on XML programming	How the standard affects XML programming
XML Publishing: https://www.w3.org/standards/xml/publishing	
Security Standards: https://www.w3.org/standards/xml/security	

10. Describe the software development life cycle and its relevance to design methodologies.
Answer in 40-80 words.

Write your answer here

11. Explain the term document type definition (DTD).
Answer in 40-80 words.

Write your answer here

12. Describe each of the following XML document components.
Answer in 40-80 words.

Write your answer in the table below

Entities	
Elements	
Attributes	

13. List two debugging methods that can be used for XML.
Answer in 40-80 words.

Write your answer here

Method 1:	
Method 2:	

14. Describe the process for XML document validation.

Write your answer here

15. Describe the testing process that can be used for XML documents.

Write your answer here

Task B – Perform requirements analysis on the website and xml document.

Case Study

Please read the case study provided for this unit to complete tasks B to G. In this assessment, you will play the role of web developer, while your trainer will be your systems analyst.

You need to perform requirements analysis on Bryan's Café website and XML documents. To achieve this, you need to:

- Analyse the case study provided.
- Based on your analysis, create a requirements analysis report using the template with filename: taskBRequirementsAnalysis.docx. This template will be provided in the learning management system. Follow all instructions given in this template and provide the required details on all sections.
    - Note that a meeting with the systems analyst will take place. The schedule will be provided to you.

Task C–Design the website and xml documents

Website Design

In this activity, you are to design the website based on the client's requirements using wireframe or mock-up.

The design must be submitted in pdf format with the filename: taskCWebDesign.pdf.

XML Tree Structure

Provide a diagram of the tree structure for each XML document. This can be hand drawn here or developed on a computer in which case you should attach a screenshot.

The **tree structure must be submitted in pdf format** with the filename: taskCTreeStructure.pdf.

Task D – Develop the website and xml documents

Based on the case study, create a website projectand name it as: bryanCafe. The project should contain the following HTML documents having the following filenames:

HTML Document	Filename	Page Title
About	index.html	About
Menu	Menu.html	Menu
Contact	Contact.html	Contact

Apply the layout, colour and font styling to each of the web pages based on the design and case study.

Once you have completed this task:

- Submit the website project as evidence that you have met the requirements for this task.
- Host the website

Task E–Test the website and xml document functionality and security

You need to test the functionality and security of Bryan's Café website and XML documents. To achieve this, you need to:

- Complete task D.
- **Create the test document using the template with filename: taskESecurityAndTesting.docx**. This template will be provided in the learning management system. Follow all instructions given in this template and provide the required details on all sections.

Task F – Feedback

You need to send an email to your systems analyst asking for approval of your website. The email should include:

- link to your website
- Link to both of your xml and dtd documents

Based on the XML and DTD documents that you've provided, the systems analyst will:

- Look for errors on your XML and DTD documents and request you to fix the errors
- If there are no errors, you will be provided with an example for you to fix.

Take screenshots of the work you undertook to fix errors.

4. Candidate Self Checklist

Candidate Self Checklist for Tasks A - F

Candidate name:	
Unit of Competency:	ICTWEB441 Produce basic client-side script ICTWEB518 Build a document using extensible markup language
Instructions: *Place a tick '✓' in the Yes ("Y") column for each question you have completed all parts for.*	
Task A –Perform knowledge test.	
Did you:	**Y** ✓
1. List three basic principles upon which open platform programming is based.	
2. Describe the required terms that relate to client-side scripting and its application to dynamic web page design.	
3. Explain the purpose and difference of server-side and client-side scripting.	
4. Describe two standards relevant to programming languages in general.	
5. List two methods that can be used to test scripts within a website.	
6. Describe the purpose of extensible markup language.	
7. Describe unified modelling language (UML).	
8. Give an example of a software that can be used for creating XML documents.	
9. List two standards that impact XML programming and how.	
10. Describe the software development life cycle and its relevance to design methodologies.	
11. Explain the term document type definition (DTD).	
12. Describe the required XML document components.	
13. List two debugging methods that can be used for XML.	
14. Describe the process for XML document validation.	

15. Describe the testing process that can be used for XML documents.	

Task B – Perform requirements analysis on the website and xml document	
Did you perform the following on your requirements analysis report?	**Y** ✓
Outline the client requirements for the website based on your initial review of the documentation.	
Outline the procedures you need to follow to produce websites that includes include language in which the website is to be developed and cyber security procedures and protocols to be followed in relation to website development.	
Write down your questions and your client's response to address the questions?	
Outline the client requirements for the website based on your meeting with the client.	
Identify: • *One applicable legislation and its relevance to XML document development* • *Two applicable standards and its relevance to XML document development*	
Outline the procedures that you will follow to develop your XML documents	
Describe the two XML documents you are going to design and develop, including: • *purpose* • *expectations for the document* • *required functionality.*	
Document the design methodology that you will use for your XML documents. *Explain how the methodology will incorporate iterative development.*	
For each XML document, define the: • *entities* • *elements* • *attributes (if necessary)*	

Task C – Design the website and xml document	
Did you perform the following?	**Y** ✓
Design the website based on the client's requirements using wireframe or mock-up.	
Provide a diagram of the tree structure for each XML document	

Task D – Develop the website and xml document	
Did you:	**Y** ✓
Create the website and xml documents based on the customer requirements?	
Host the website?	

Task E – Test the website and xml document functionality and security	
Did you:	**Y** ✓
Test the website in order to: • *Determine that the website performs all the required functionality* • *Check that the website is secure and bug free*	
Describe the testing process you followed to ensure that: • *The website is functional* • *The website is functional after the change you made* • *The website complies with cyber security procedures. Describe how you follow the procedures.*	
Test both of your XML documents offline to check if they are working on two different browsers.	

Describe the testing process you undertook and paste the screenshots below.	
Test that data from xml documents appear in menu and contact page on laptop and mobile phone.	
Test both of your XML documents online to check if they are working	

Task F – Feedback	
Did you:	**Y** ✓
Send an email to your systems analyst asking for approval of your website that includes: • *link to your website* • *Link to both of your xml and dtd documents*	
Fix the XML and DTD errors	