



Level 4 Diploma for IT Professionals (Systems and Principles) 7630-04

Unit 431 Website design (UAN J/601/1286)

Assignment Guide for Learners

Unit 431 Website design

This assignment should be completed using an actual web site/application in the work environment as a basis for the tasks to be undertaken. The work place scenario should be agreed with your tutor or assessor before beginning the assignment. If this is not feasible then the scenario below should be used.

Scenario/context

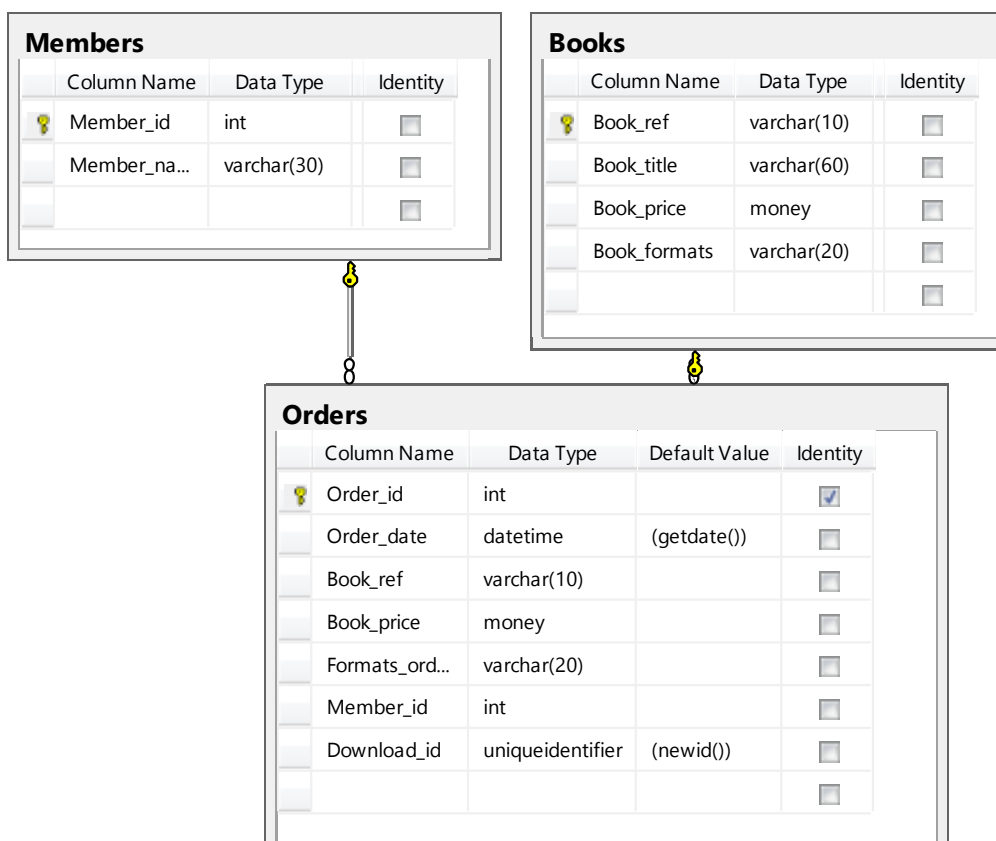
You are employed as a web developer and your company has been approached by a local author who self-publishes his work in the form of eBooks. He wishes to sell his work through a web site where registered users may order electronic copies and then download them directly.

The author already has a website and member registration functionality so he requires a shopping cart extension where a registered user can request download of one or more books in a chosen format (not all formats are available for all books). The cart should receive and validate the member registration number and, once validated, allow the member to add or remove books to or from the cart. If a book is requested in more than one format only one fee will be incurred.

When ready, the member may checkout his request and the order will then be processed and added to the database. The cart will show the full order details including total cost and also the unique identifier generated by the database for each download. This will need to be entered when the member decides to download his books. *Note: only the shopping cart functionality is required at this time. Order payment and book download will be created separately.*

The author wishes to spend his time writing and not answering queries so the web site should also offer onscreen help to assist users to request books with the minimum of support. A script has been provided which will create and populate a SQL Server database with the books shown below and a number of users.

The database structure is shown in the following diagram.



A stored procedure to add a book request into the orders table has also been included but its use is optional.

All of the author's currently available books are listed below:

Ref.	Title	Price	Formats Available
F001	The Crystal Sword – Book 1 “The Legacy”	3.99	EPUB, MOBI, AZF
F002	The Crystal Sword – Book 2 “Lost Dreams”	3.99	EPUB, MOBI, AZF
F003	The Crystal Sword – Book 3 “Dreams Regained”	3.99	EPUB, MOBI, AZF
F004	The Crystal Sword – Book 4 “Crystal Reforged”	3.99	EPUB, MOBI
SF005	Thoughts of the Future – An Anthology of Science Fiction	4.20	EPUB, MOBI
F006	The Unborn Mage	2.99	EPUB
SF007	Star Marine Corps	3.99	EPUB, MOBI
F008	Apprenticed to a Mad Sorcerer	3.50	EPUB
SF009	Mutiny on the Starship “Bounty”	4.99	EPUB, MOBI, AZF
NF010	What is Particle Physics anyway? – A Beginner's Guide	10.99	EPUB, MOBI, AZF
NF011	Beyond the Stars – An Introduction to AstroPhysics	11.99	EPUB, MOBI, AZF
SF012	Ensign Drake and the Space Frigate “Audacious”	2.99	EPUB, MOBI
SF013	Lieutenant Drake and the Space Pirates	2.99	EPUB, MOBI
SF014	Captain Drake and his First Command	2.99	EPUB, MOBI

Registered Members

Member_id	Member_name
1154	Gertrude Smith
1212	John Brown
1213	Sarah Jones
1223	Eliza Sanchez
1255	Ken Hom
1263	Ranjit Singh

Presentation/structure of your work

Any essay(s) that you write should include an introduction, body and conclusion. You should structure your essay(s) to reflect all of the Learning Outcomes. All Learning Outcomes must be clearly highlighted and answered within the assignment.

Your full name, the title of the assignment, the name of the tutor setting the assignment and the date should be added to every page of your work. For documents in MS-Word format this may be done by way of a footer containing this information. This is mandatory and failing to do so may result in that part of your assignment being disregarded.

Reference List and Bibliography

You are expected to reference all of the materials that you have used, throughout this assignment, using the standard Harvard referencing style.

Task 1 (LO 1.1)

Write a report/essay for the customer discussing the design concepts that you will be considering before creating the web site/web application.

Evidence to be handed in: A written report/essay in MS-Word format.

Task 2 (LO 2.1, 2.2, 4.4)

The following should be based upon the requirements for the workplace scenario agreed with the tutor/assessor or those supplied as part of the Scenario. For the scenario given, database scripts have been supplied to create a SQL database and populated tables.

- (a) Using the requirements as a base, design and document an interactive website or web application to meet those requirements including a range of functionality appropriate to the purpose. Onscreen help and or user guidance should form part of the design.
- (b) Produce a document in which you evaluate your design taking feedback into consideration. (Feedback should be requested from your tutor or assessor.) The document should detail what resources you have utilised in your evaluation.

Evidence to be handed in: Design description, diagrams and any supporting notes. Evaluation Report in MS-Word format.

Task 3 (LO 3.1)

Build the website according to the design specification produced in Task 2.

Evidence to be handed in: A fully functioning copy of the website/web application, including all source code, documents, database, supporting files, etc.

Task 4 (LO 4.1, 4.2, 4.3)

- (a) Develop a test plan to evaluate whether the implementation meets the design brief.
- (b) Execute the test plan and record the results.
- (c) Evaluate the results of the tests and comment on whether the requirements have been met.
- (d) Gather feedback on the finished application (from your tutor or assessor), critically evaluate the site in consideration of that feedback and make recommendations for improvement.

Evidence to be handed in: Test Plan and Test Log with results. Report in MS-Word format.

Task 5 (LO 4.5)

Produce a Developer Reference Manual for the web site or application to assist other developers in the support and maintenance of the site.

Evidence to be handed in: Developer Reference Manual in MS-Word format.

Assignment Composition

Task	Evidence	Unit coverage (LO & AC references)	Grading ref
1	Written Report/Essay	1.1	P/M/D
2	Design description, diagrams and any supporting notes. Evaluation Report.	2.1, 2.2, 4.4	P/M/D
3	Copy of the website/web application, including all source code and resources	3.1	P/M/D
4	Test Plan and Test Log. Report	4.1, 4.2, 4.3	P/M/D
5	Developer Reference Manual	4.5	P/M/D
Reference list and bibliography for all tasks			

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Grading criteria

For each task, the grading criteria to be applied are as follows: At pass, these are the relevant assessment criteria (AC) from the unit. For the grades, these are the generic criteria as specified. Notes on the form evidence might take in the context of the specific tasks are also noted where appropriate.

*All unit ACs must be achieved for the unit credits to be achieved (i.e. pass). The unit ACs should therefore be recorded in the assessment grading grid, not the descriptors laid out here. The descriptions given here simply provide a baseline against which merit and distinction grades can be understood.

Pass The Learner has:	Merit The Learner has achieved everything at pass grade and has:	Distinction The Learner has achieved everything at pass and merit grade and has:
<p>A sound application of the knowledge and understanding of the unit allows the assessment criteria for each task to be met.</p> <p>A solid understanding of the key concepts. Some understanding may be simplistic, narrow or shallow. Individual topics are dealt with separately but understanding is clear with some limited justification.</p> <p>A secure grasp of the key techniques and methodologies required for the tasks, without serious errors – allowing the product to work technically although the execution may show some awkwardness or inconsistency.</p>	<p>An appropriate and accurate application of the knowledge and understanding of the unit allows the tasks to be completed to a generally high standard, with evidence of only minor flaws in some complex areas.</p> <p>A sound understanding of the breadth/depth of the relevant concepts. Topics are dealt with in relation to each other and communicated clearly with some appropriate justification.</p> <p>A secure grasp of the specific techniques and methodologies allowing the product to succeed technically with the execution showing consistency and some dexterity/ fluidity of practice.</p>	<p>Application of knowledge and understanding is drawn together from a range of sources/ experiences into highly considered application allowing a consistently high standard in complex area.</p> <p>A well-developed understanding of the relevant concepts. Relationships between topics are highly developed and may be set in context. Interactions between topics are clearly expressed.</p> <p>A secure grasp of the detail and complexities of techniques and methodologies allowing the quality of the process/ product/ service to stand out, with the execution showing consistency and dexterity/ fluidity of practice in all aspects.</p>

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Task 1

- 1.1 Discuss the design concepts that have to be considered when designing a web site.

Written report or essay includes:

Basic discussion of the design concepts which have to be considered when designing a web site and reference made to the scenario for examples.

Written report or essay includes:

Detailed discussion of the design concepts which have to be considered when designing a web site and reference made to the scenario for examples.

Written report or essay includes:

Comprehensive discussion of the design concepts which have to be considered when designing a web site with detailed reference made to the scenario for a range of examples.

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Task 2

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|---|---|---|
| 2.1 Design an interactive website to meet given requirements. | 2.2 Evaluate website design with other users. | 4.4 Create onscreen help to assist the users. |
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Evidence:

A design for the website has been prepared matching the requirements identified and basic functionality appropriate to the purpose of the website has been included. Documentation is adequate and covers all areas.

Design incorporates basic onscreen help.

Website design has been evaluated against feedback.

Evidence:

A detailed design for the website has been prepared matching the requirements identified and functionality appropriate to the purpose of the website has been included. Documentation is to a good standard and covers all areas with reference to the requirements.

Onscreen help is provided with good topic coverage.

Website design has been evaluated against feedback with some examples.

Evidence:

A comprehensive design for the website has been prepared matching the requirements identified and extensive functionality appropriate to the purpose of the website has been included. Documentation is clear and to a high standard and covers all areas in detail with references to the requirements.

Onscreen help is of a high standard enabling maximum benefit to users.

Website design has been evaluated in detail against feedback with a range of examples.

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Task 3

- 3.1 Implement a fully-functional interactive website using a design specification.

Evidence:

Web site has been created and implemented according to the design produced in Task 2 with few flaws.

Evidence:

Web site has been created and implemented according to the design produced in Task 2 with only minor flaws.

Evidence:

Web site has been created and implemented to a high according to the design produced in Task 2 with no flaws.

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Task 4

- | | | |
|---|---|--|
| 4.1 Critically review and test the website. | 4.2 Analyse actual test results against expected results to identify discrepancies. | 4.3 Evaluate independent feedback and make recommendations for improvements. |
|---|---|--|

Evidence

A test plan has been produced with essential tests and any prerequisites and includes capability for predicted and actual results. Some reference to requirements.

Evidence demonstrates that the tests have been carried out and the results logged.

Basic review of test results and conclusions drawn as to effectiveness in meeting requirements.

Feedback provided has been evaluated and documented and recommendations made for improvement.

Evidence

A test plan has been produced with essential tests and any prerequisites and includes capability for predicted and actual results. Procedures are explained and cross-referenced to requirements.

Evidence demonstrates that the tests have been carried out to a good standard and the results logged with some comments.

Detailed review of test results and conclusions drawn as to effectiveness in meeting requirements.

Feedback provided has been evaluated and documented in detail with reference to requirements and recommendations made for improvement.

Evidence

A fully detailed test plan has been produced with essential tests and any prerequisites and includes capability for predicted and actual results. Procedures are explained in detail and cross-referenced to requirements.

Evidence demonstrates that the tests have been carried out thoroughly and the results logged with detailed comments.

Comprehensive review of test results and conclusions drawn as to effectiveness in meeting requirements.

Feedback provided has been evaluated and documented in detail with examples and reference to requirements and detailed recommendations made for improvement.

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Task 5

- 4.5 Create documentation for the support and maintenance of the website.

Evidence

A Developer Reference Manual has been produced with basic information enabling support and maintenance.

Evidence

A detailed Developer Reference Manual has been produced with necessary information, diagrams and notes to a good standard enabling support and maintenance.
Site navigation, data structures, file locations, etc., are explained with reference to requirements.

Evidence

A comprehensive Developer Reference Manual has been produced with all information, diagrams and notes to a high standard enabling support and maintenance. Site navigation, data structures, file locations, etc., are explained in detail and cross-referenced to requirements.

Assessment task front sheet (enclose with each submitted task)

Qualification Level 4 Diploma for IT Professionals (Systems and Principles) 7630-04 Unit	Assessment title Unit 431 Website design Version <i>(if applicable)</i>
Centre Name QA Ltd Centre Number 008348	Learner Name Learner number

Task

Declaration of authenticity (to be completed by the Learner)

<i>I confirm that all work submitted is my own, and that I have acknowledged all sources I have used.</i>	
Learner signature	Date

Assessor Name

To be completed by the assessor

<i>I confirm that all work was conducted under conditions designed to assure the authenticity of the Learner's work, and am satisfied that, to the best of my knowledge, the work produced is solely that of the Learner.</i>	
<i>I have judged the assessment against the assessment and grading criteria for this task and award the Learner the grade:</i>	
Assessor signature <div style="border: 1px solid black; width: 300px; height: 40px; margin-left: 10px;"></div>	Date
*IQA signature & date	*EV signature & date

*if sampled)