

assignment 1

This assignment is worth 15% of the total mark for the unit.

Build a web site using the downloadable template. The site is just a vehicle to illustrate the use of XML, and so will not be about anything in particular, such as a bank, or business. The site will contain no content apart from the XML and documentation content as specified below.

NOTE: This assignment will be corrected using XMLWriter 2.11. You should check your Schema validation and XSLT transformation using this program, before submitting your assignment.

NOTE: You should make no changes to the downloaded XML document other than links to Schema and XSLT files as required. Substantial marks will be deducted for any other changes made to the XML document.

[Click to download template](#)

The template is in a zip file (with directory structure). Create a "ass1" sub-directory in your root directory on the student server. Unzip this file and transfer the various files and directory structure into your ass1 sub-directory. As indicated in the template, add the various XML requirements to the files in the template.

[Click to view the template](#)

Follow the requirements for the XML and assignment documentation pages which are detailed below.



XML Page 1

Construct an XML Schema for the customer orders XML file.

[Click to download customer orders XML file](#)

The XML file has the following elements:

- customer [may occur zero or more times] and contains the following elements:
 - name [must occur exactly once]
 - address [must occur exactly once]
 - contacts [must occur exactly once]
 - orders [may occur zero or once].
 - the customer element also has 2 required attributes:
 - "cno" which has the format "Cnnn", where nnn represents a 3 digit number. This value must be unique
 - "corporate" which has a boolean value
- the name element contains the following elements:
 - **either**
 - givenName [must occur one or more times]
 - familyName [must occur exactly once]
 - **or**
 - companyName [must occur exactly once]
- the address element contains the following elements:
 - street [must occur exactly once]
 - suburb [must occur exactly once]
 - state [must occur exactly once]. This must contain a valid Australian

- state or territory (NSW, VIC, SA, QLD, WA, TAS, ACT, NT)
 - postcode [must occur exactly once]. Valid values are 2000-7999, inclusive.
- the contacts element contains the following elements:
 - name [may occur zero or once]
 - home [may occur zero or once]
 - office [may occur zero or once]
 - mobile [may occur zero or once]
 - the home, office and mobile elements all have an optional attribute named "primary", of type boolean
 - the home and office data must be in the format (nn) nnnn-nnnn, eg (03) 9903-3401
- the orders element contains the following element:
 - order [must occur one or more times] and has a required attribute named "no", which has the format "Onnn", where nnn represents a 3 digit number
- the order element contains the following element:
 - orderDate [must occur exactly once]. A date value with the format "CCYY-MM-DD"
 - orderLine
- the orderLine element contains the following elements:
 - itemNo [must occur exactly once] and has the format "Innn", where nnn represents a 3 digit number
 - description [must occur exactly once]
 - quantity [must occur exactly once] This is an integer value which indicates how many items ordered
 - unitPrice [must occur exactly once] This is a decimal value which indicates the price of one item
 - discount [may occur zero or once] This is an integer value which indicates the percentage discount to be applied to the customers order value.

Use simple and complex types as appropriate. Where elements have specific data formats, use appropriate XML schema definitions. Include an annotation at the top of the schema to document its use. Modify the XML document so that it can access the XML Schema.

Leave the XML page 1 blank (apart from an appropriate heading), since the browser will not process schemas.

On XML page 1 documentation page , display in order:

- the XML Schema (embed into page, do not use links)
- the modified XML document (embed into page, do not use links)
- a link to the XML Schema file, so the tutor can download it for validation with the XML file
- a link to the modified XML document so the tutor can download it for validation with the Schema

Use these images for the links to the two files.



XML Page 2

In doing Pages 2, 3, 4, 5, 6 and 7 use XMLWriter to process the XML and XSLT documents to produce an HTML document, which is then displayed as the XML Page 2, 3, 4, 5, 6 and 7.

Take the XML document constructed above and use an XSLT stylesheet to list elements of some of the customer orders records, as specified below.

- Display a customer listing
- Display the cno, name, address and contact details for each customer.
- If the customer is a corporate customer display name, office and mobile details, with an appropriate label
- If the customer is a private (no corporate) customer display home, office and mobile details, with an appropriate label
- Display the customers in a table. Place headings in the top cell of each column of the table.
- Display an appropriate heading at the top of the page

The page should look something like this:

Customer List			
Cust No.	Name	Address	Contacts
C111	James Hird	12 Raleigh Rd North Melbourne VIC 3611	Home: (03) 9903-3401 Office: (03) 9903-3401 Mobile: 04111222333
C222	Essendon Football Club	10 Bomber Ave Windy Hill VIC 3666	Contact Name: Ray Horsburgh Office: (03) 9111-9999 Mobile: 04111222444
C333	Kevin Sheedy	10 High St Essendon VIC 3622	Home: (03) 9111-3333 Office: (03) 9111-9999 Mobile: 04111222444
C444	John Worsfold	23 Bayview Ave South Perth WA 6200	Home: (06) 6222-3333 Office: (06) 6222-9999 Mobile: 04111222555
C555	Ben Cousins	23 Long Ave West Perth WA 6500	Home: (06) 6222-4444 Office: (06) 6222-9999 Mobile: 04111222666
C666	West Coast Football Club	1 Eagle Dr Subiaco WA 6666	Contact Name: Dalton Gooding Office: (06) 6222-9999 Mobile: 04111222555

On the XML documentation page 2, (and documentation pages 3, 4, 5, 6 and 7) display (embed, do not use links):

- the XSLT stylesheet document
- the XML document
- the HTML document produced by XMLWriter from the XML and XSLT documents.
- a link to the XSLT file, so the tutor can download it for processing with the XML file
- a link to the modified XML document so the tutor can download it for processing with the XSLT file

I use these images for the links to the two files

Use these images for the links to the two files.

XML file

XSLT file

3 XML Page 3

Take the XML document constructed above and use an XSLT stylesheet to list elements of some of the customer orders records, as specified below.

- Display a list of all customers.
- Display the customer name, address, type (corporate or private) and primary contact number
- Display the list in a table with column headings
- Ensure the list is sorted within customer type, then name or family name

NOTE: It is not necessary to worry about late assignment submissions for this page.

The page should look something like this:

Customer Type List			
Name	Address	Type	Contact
Essendon Football Club	10 Bomber Ave Windy Hill VIC 3666	Corporate	(03) 9111-9999
West Coast Football Club	1 Eagle Dr Subiaco WA 6666	Corporate	(06) 6222-9999
Ben Cousins	23 Long Ave West Perth WA 6500	Private	04111222666
James Hird	12 Raleigh Rd North Melbourne VIC 3611	Private	04111222333
Kevin Sheedy	10 High St Essendon VIC 3622	Private	04111222444
John Worsfold	23 Bayview Ave South Perth WA 6200	Private	04111222555

4 XML Page 4

Take the XML document constructed above and use an XSLT stylesheet to list elements of some of the customer orders records, as specified below.

- Display a list of customers, the number of orders they have placed and the date of the first (oldest) and last (youngest) orders
- Display the cno, name and type (corporate or private).
- Display the list in a table with column headings
- Ensure the list is sorted in order date ascending order, ie the customer who placed the oldest order first and the customer who placed the youngest order last.

The page should look something like this:

Customer Orders					
Cust. No	Name	Type	Orders	First Order	Last Order
C111	James Hird	Private	0		
C333	Kevin Sheedy	Private	3	2006-01-21	2007-07-11
C222	Essendon Football Club	Corporate	2	2007-04-12	2007-06-21
C666	West Coast Football Club	Corporate	2	2007-04-12	2007-07-01
C555	Ben Cousins	Private	1	2007-05-05	2007-05-05
C444	John Worsfold	Private	2	2007-06-16	2007-12-12



XML Page 5

Take the XML document constructed above and use an XSLT stylesheet to list elements of some of the customer orders records, as specified below.

- Display a list of customers and their order details.
- Display the cno and name for each customer.
- For each customers orders, display the orderNo and orderDate (formatted as dd/mm/yyyy)
- For each orders orderLine, display the itemNo, description, unitPrice, original line total, discount percentage and discounted line total.
- Ensure that each customers order are sorted by orderDate in ascending order.
- Ensure that each order is sorted by description in ascending alphabetic order
- Ensure that customers that do not have any orders are NOT displayed.
- Ensure all numbers are suitably formatted.

The page should look something like this:

Customer Orders						
Cust No.:		C222				
Name:		Essendon Football Club				
Order No:		0111				
Order Date:		12/04/2007				
Item No.	Description	Qty	Unit Price	Original Total	Discount	Discount Total
I002	Meat Pies	100	\$2.00	\$200.00	10%	\$180.00
I001	Sausage Roll	100	\$1.00	\$100.00	0%	\$100.00
Order No:		0112				
Order Date:		21/06/2007				
Item No.	Description	Qty	Unit Price	Original Total	Discount	Discount Total
I001	Orange Juice	100	\$1.50	\$150.00	2%	\$147.00
I002	VIC Bitter	200	\$3.00	\$600.00	5%	\$570.00



XML Page 6



Take the XML document constructed above and use an XSLT stylesheet to list elements of some of the customer orders records, as specified below.

- Display a list of all items and a total of how many units of each have been ordered.
- Ensure the list is sorted in description alphabetic ascending order.
- Ensure there is a grand total of all items
- Ensure all numbers are suitably formatted.

The page should look something like this:

Item Quantities	
Item	Quantity Ordered
BBQ Chicken Wing	1,500
Coke	525
Lemonade	500
Meat Pies	2,100
Orange Juice	2,130
Red Wine	1,705
Rice Paper Roll	1,000
Salmon Sandwich	1,000
Sausage Roll	1,615
Springroll	2,000
Tomato and Ham Sandwich	1,090
Vegetarian Sandwich	600
Victoria Bitter	2,200
White Wine	500
Total Items Ordered	18,465



XML Page 7

Take the XML document constructed above and use an XSLT stylesheet to list elements of some of the student results records, as specified below.

- Display a list containing the total number of orders and customers, and the average number of orders
- Ensure the average number of orders is displayed to 2 decimal places.
- Display a list of customers who have placed more than the average number of orders
- Display the cno, name and number of orders each customer has placed
- Ensure the list is sorted in number of orders descending order.

The page should look something like this:

Average Number of Orders		
Number of Customers	Number of Orders	Average Number of

Number of Customers	Number of Orders	Orders
6	13	2.17

Customers Who Have Placed More Than Average No. of Orders

Cust No.	Name	Number of Orders	% of Total Orders
C333	Kevin Sheedy	4	30.77%
C222	Essendon Football Club	3	23.08%
C444	John Worsfold	3	23.08%

Other feaures

The assignment must be written using an HTML editor, such as 40tude and/or XML Writer. HTML code generating software such as "FrontPage" must not be used. Assignments that use such packages will be awarded zero marks.

The assignment will be corrected using Internet Explorer 6.0 or later. Check that all your features work with this browser. Be sure to test your assignment after it has been transferred to the server. Be sure to check that all the links still work and that the images load correctly.

8 Assignment documentation

The author page will contain details of the author: name, student ID, head and shoulders photo, the unit's name, subject provider (Monash University, The Peninsula School of Information Technology), assignment number, date of submission, an email link to the author, a link to the assignment specification.

No marks will be awarded for the various XML sections of the assignment where the documentation is not included and substantial marks will be deducted for poor documentation.

Submitting Assignment 1.

Use an FTP program, like WS_ftp, to create a sub-directory in your home directory on the Triton student server. This sub-directory must be called "ass1". Store the HTML and XML files and any associated files that make up your assignment in this "ass1" sub-directory. The starting file for your pages must be called "index.html" and it must be in "ass1" sub-directory. Marks will be deducted for failing to follow these directions.

Use an FTP program, like WS_ftp, to transfer your files to your directories on the Triton server. See the software download section of this website to obtain a copy of WS_ftp.

For a video tutorial on how to use WS_ftp, please [click here](#).
For a short static tutorial on how to use WS_ftp, please [click here](#).

The ftp facility on the Triton server will be disabled at 2pm Melbourne time, on the date that the assignment is due (**see the Calendar on menu at left of screen for the submission date**). By this time the assignment must have been transferred to your directory on the Triton server. At this time, an image is taken of student assignments and this is used for correction purposes. So although you may be able to transfer files after that time, they will not be considered for correction. Consequently, do not leave it to the last day to transfer files. No consideration will be given for failing to transfer files before the required time.

You must test the transfer procedure well before time to make sure you know how it works. After you have transferred your assignment, test it thoroughly. Do not assume that just because the assignment works properly from your hard disk, that it will also work properly from the student server. For example, if you have spaces in the names of your files, they may not work properly from the Triton server, but may work from

your hard drive.

To view your assignment after it has been transferred, point your browser to:

<http://triton.infotech.monash.edu.au/99999999/ass1/index.html>

Note: insert your ID number in place of "99999999". You will be prompted for username and password: that is your Walkabout username and password.

If you fail to transfer your assignment before the closing time you will be given zero marks. The only exceptions will be in cases of sickness or other serious cause, for which documentary evidence (e.g. a doctor's certificate) must be produced. Students must request an extension prior to the submission date.

Download a copy of the assessment sheet (an Excel spreadsheet). The spreadsheet has two worksheets. The first is a cover sheet for the assignment. Read this carefully and then fill in your details in the boxes at the top of the worksheet. The second worksheet is for staff to enter your marks. Do not make any changes to this second worksheet. Use an FTP program to transfer your assessment sheet to your **root directory** on the student server. Do not rename the assessment sheet file name under any circumstances. After correction, your marks will be added to the assessment sheet, the ftp facility will be turned on again and you will be able to download your sheet to see your marks. Please note: 30 marks will be deducted for failing to fill out the assessment sheet and placing it in your root directory.

Go through the assessment sheet carefully and check that you have done everything for which marks will be awarded. Remember, marks will be awarded for the assignment that has been set, not the assignment you might like to do. Make sure that the various features are on the pages as detailed above: if you place a feature on the wrong page you will be given zero marks for that feature.

The author must write all submitted web pages. Where there is evidence of similarity with other assignments, students will be heavily penalised. Students may be interviewed as part of the assessment requirements of the assignment. Students will be asked question(s) to explain their submitted assignment. If a question is not answered satisfactorily, up to two marks will be deducted and successive questions asked until satisfactory answers are forthcoming or there are no more marks to deduct.

Students must not transfer any documents containing viruses to the student server. Any such document will be given zero marks and a further 20 marks will be deducted from the assignment total.

[Click to download assessment sheet](#)

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