

CSE2ICX

Internet Client Engineering

Assessment 1 – Website Engineering and Modelling

Assessment Objectives

- Design and build Web sites using a systematic engineering process.
- Document a Web site design using textual and diagrammatic formats.

This is an INDIVIDUAL assignment. Students are not permitted to work in a group when writing this assignment.

Copying, Plagiarism

This is an individual assignment. Students are not permitted to work in a group when writing this assignment. Plagiarism is the submission of another person's work in a manner that gives the impression that the work is their own. La Trobe University treats plagiarism seriously. When detected, penalties are strictly imposed.

Further information can be found on <http://www.latrobe.edu.au/students/academic-integrity/explanation/plagiarism>

Submission Guidelines

- Your assignment submission should be typed, not written/drawn by hand.
- Submit the electronic copy of your assignment through the subject LMS.
- Submission after the deadline will incur a penalty of 5% of the available marks for that task per day capped at 5 days. No assignment will be accepted after 5 days. If you have encountered difficulties that lead to late submission or no submission, you should apply for special consideration.

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Background

You have been approached to create two **conference** websites for a conference in **Sydney**. You may choose the exact organisation since the organisation is fictitious. You must create the websites to be as realistic as possible for a normal organisation.

To give ideas, the conference could be about technology, wellbeing, business, hospitality, engineering or anything else reasonable you choose. You are welcome to discuss your choice with an academic via a support request. The choice must be different to any previous academic work.

The organisation has requested two websites: A public website with information about the organisation and an internal website that members of the organisation will use for day-to-day management.

Assignment 1 will require some engineering and modelling tasks to get the project started. The two websites will be developed next for assignments 2 and 3 respectively. Lastly assignment 4 will require some usability testing on both websites.

Further understanding of the two websites is needed to complete Assignment 1. Please take some time to read ahead for assignments 2 and 3 to learn about the functional requirements of those websites before starting.

The tasks of this assignment are organised as follows. Tasks 1-6 are written questions about web engineering. Tasks 7-8 are web modelling questions using Microsoft Visio 2016. Tasks 9-10 give you some extra practice with web programming where you to format all your answers to Tasks 1-8 in a web page.

Task 1: First process model requirement

The authors of your Web Engineering eBook (Kappel et. al., 2006, §10.3) describe six requirements to assist with the decision of choosing an appropriate web application development process model. One of those is “handling short development cycles” (Kappel et. al., 2006, §10.3.1). Do you consider this important for choosing a process model for the Sydney conference websites? Justify your answer.

Task 2: Second process model requirement

Continuing from Task 1, another requirement to assist with the decision of choosing an appropriate web application development process model is “parallel development of different releases” (Kappel et. al., 2006, §10.3.4). Do you consider this important for choosing a process model for the Sydney conference websites? Justify your answer.

(Note: When answering tasks 1 and 2, it is not important if you view both requirements as important, neither requirement as important, or one important and one not. Your justification for the provided scenario is the most important aspect of your answers.)

Task 3: First process model

Kappel et. al. (2006, §10.4) describe Rational Unified Process as an example of a process model for web application development. Do you consider Rational Unified Process as a suitable process model for the Sydney conference websites? Justify your answer.

Task 4: Second process model

Joint Application Design is another example of a process model that could be used for web application development. Do you consider Joint Application Design as a suitable process model for the Sydney conference websites? Justify your answer.

(Note 1: This task is different to task 3 in that you have not been provided with a reference. You must develop this answer by conducting some independent research. Add your reference(s) to your bibliography.)

(Note 2: When answering tasks 3 and 4, it is not important if you view both process models as suitable, neither process model as suitable, or one suitable and one not. Your justification for the provided scenario is the most important aspect of your answers.)

Task 5: Public website use case diagram

Read ahead regarding the functional requirements for the Sydney conference public website in Assignment 2. Create a use case diagram for this website using Microsoft Visio 2016. You will be assessed on all relevant actors, associations, use cases, includes relationships and extends relationships.

Task 6: Internal website use case diagram

Read ahead regarding the functional requirements for the Sydney conference internal website in Assignment 3. Create a use case diagram for this website using Microsoft Visio 2016. You will be assessed on all relevant actors, associations, use cases, includes relationships and extends relationships.

Task 7: HTML format

Tasks 7 and 8 require you to prepare your answers to Tasks 1-6 in a webpage called index.html. You must produce a single HTML webpage that uses a mixture of sections, headings, paragraphs, lists, images, etc., to format your answers. You do not need to use CSS in Assignment 1.

The end of your webpage also needs a short bibliography to reference your sources.

To complete this task, you need to develop a website solution in Visual Studio 2017 to hold your webpage. Your solution must also hold your use case diagram images from Tasks 7-8 exported to PNG format.

Important: Follow the following steps to create your Visual Studio 2017 solution:

- Create a new folder called **xxx_cse2icx_assignment1**, where xxx is your student ID.
- Open Visual Studio 2017. Select "File" -> "Open" -> "Website..." and select the new folder.
- Select "File" -> "Close Solution" immediately. This will prompt you to save a solution file (*.sln suffix). This must be saved in your new folder. Close Visual Studio 2017.
- Double-click on the solution file to open Visual Studio 2017 and your solution again. Continue to use this method for opening your solution going forward for convenience.
- You are now ready to go. Add your project assets next.

Task 8: HTML code and validation

This task will award marks according to the quality of your code according to these aspects:

- HTML indentation is consistent with one level of indentation per block.
- HTML tags consistently use lowercase letters. (The DOCTYPE declaration is an exception.)

- c) The W3C markup validation service (<https://validator.w3.org>) reports zero errors and zero warnings on your code when tested with the “validate by direct input” method.
- d) Your HTML document includes a clickable W3C validation logo to the validator to indicate compliance to the W3C standards. (See week 3 HTML lecture, slide 98, for logo examples.)

Submission

When you have completed, submit your answers via the link on the LMS. You should submit the following four separate items:

- a) Zip your Visual Studio 2017 solution folder to a file called **xxx_cse2icx_assignment1.zip**, where xxx is your student number. Take care to zip your solution folder rather than the contents of the folder to avoid a [tarbomb effect](#). The following files will be expected in your folder:
 - HTML: index.html
 - Subfolder “images”: task5.png, task6.png and a HTML validation logo
 - Solution file: xxx_cse2icx_assignment1.sln
 - Web.config: Visual Studio may generate this file, which you can leave alone
- b) Copy the HTML document output to a file called **xxx_cse2icx_assignment1.docx**, where xxx is your student number. This is a redundant copy of your work used for academic integrity checking only. This version is otherwise not used for marking.
- c) Visio file **xxx_cse2icx_task5.vsd** (used for academic integrity checking of task5.png).
- d) Visio file **xxx_cse2icx_task6.vsd** (used for academic integrity checking of task6.png).

Assessment marking criteria

The marks for this assignment will be awarded as per the following marking rubric:

Task	Marks	Description	Total
1	0	Importance of process model requirement 1 not clearly stated.	3
	1	Importance of process model requirement 1 clearly stated.	
	0	Process model requirement 1 justification is poor.	
	1	Process model requirement 1 justification can be improved.	
	2	Process model requirement 1 justification is good.	
2	0	Importance of process model requirement 2 not clearly noted.	3
	1	Importance of process model requirement 2 clearly noted.	
	0	Process model requirement 2 justification is poor.	
	1	Process model requirement 2 justification can be improved.	
	2	Process model requirement 2 justification is good.	
3	0	Suitability of process model 1 not clearly stated.	3
	1	Suitability of process model 1 clearly stated.	
	0	Process model 1 justification is poor.	
	1	Process model 1 justification can be improved.	
	2	Process model 1 justification is good.	
4	0	Suitability of process model 2 not clearly stated.	3
	1	Suitability of process model 2 clearly stated.	
	0	Process model 2 justification is poor.	
	1	Process model 2 justification can be improved.	
	2	Process model 2 justification is good.	
5	0	Actor component was poor.	5
	1	Actor component was good.	
	0	Use case component was poor.	
	1	Use case component can be improved.	

	2	Use case component was good.	
	0	Association component was poor.	
	1	Association component was good.	
	0	Includes and/or extends component was poor.	
	1	Includes and/or extends component was good.	
6	0	Actor component was poor.	5
	1	Actor component was good.	
	0	Use case component was poor.	
	1	Use case component can be improved.	
	2	Use case component was good.	
	0	Association component was poor.	
	1	Association component was good.	
	0	Includes and/or extends component was poor.	
	1	Includes and/or extends component was good.	
7	0	HTML format was poor.	3
	1	HTML format can be improved.	
	2	HTML format was good, including a several common HTML tags.	
	0	Bibliography was poor.	
	1	Bibliography was good.	
8	0	HTML validator reported one or more errors.	5
	1	HTML validator reported one or more warnings, but no errors.	
	2	HTML validator reported zero problems.	
	0	Clickable validation logo was poor.	
	1	Clickable validation logo was good.	
	0	HTML indentation was poor.	
	1	HTML indentation was good.	
	0	HTML capitalisation was poor.	
	1	HTML capitalisation was good.	
–	0	Feedback will also be given regarding submission timeliness, length and format. Penalties may apply.	0
		Total available marks	30