ICT581 Information Systems Principles and Practice

Assignment 1

Worth:	15% of your final grade.
Due:	**Sunday, 20 April 2025, 11:59 PM**
Submit to:	LMS, via the Assignments tool. Submit as a single Word document including all parts of the assignment. Ensure you complete the declaration that is part of the submission process, and click all the way through to the final 'submit' button. *Simply uploading your assignment does not submit it.*

This is an **INDIVIDUAL** assignment.
Late submissions without an extension will be penalized at a rate of 10% per day.
Extensions for assignment submissions can only be granted if requested in advance of the due date for submission, and will only be accepted if there is a good reason (e.g. sickness supported by a Doctor's certificate). Therefore, being unwell in the last few days before submission will not be considered an adequate excuse in most cases.

- The assignment involves several exercises of some systems analysis activities based on the material covered in Topics 4-6. It requires you to carry out early systems design activities for the **Conference Coordinator Information System (CCIS)** described here. Read the case study on the next page and answer the following questions.
- Further in-depth research on the CCIS case discussed in the workshop is required, along with a more comprehensive analysis of use cases. This can be achieved by examining similar conference information systems and identifying and refining potential assumptions.

Summary of what to submit:

Question	Task	Marks
1	Trigger & Benefit	10
2	Stakeholders & Interests	10
3	(a) Functional requirements	10
	(b) Non-functional requirements & +	10
4	(a) User Goal technique	10
	(b) Event Decomposition technique	10
5	Domain model class diagram	25
	Assumption, justification, clarity, etc.	10
GENERAL	Report writing, including layout, formatting, table of contents, references, and proofreading. No word/page limit.	5
	TOTAL MARKS	100

The case study: The Conference Coordinator Information System (CCIS)

An academic conference is an opportunity for researchers in a particular field to gather together for a few days to share and discuss the latest research in their area. At a conference a number of papers are presented by their authors to an audience of other researchers. The papers are written especially for the conference and must go through a peer-review process before they are accepted. Conferences typically include other activities such as workshops, panel discussions, invited speakers and social activities, but the main part is always the paper presentations, which occur in a number of sessions, each devoted to a particular track (topic) within the main conference theme.

The inaugural Australasian Conference on Digital Transformation needs an information system that will (among other things) enable prospective attendees and presenters to submit papers for review, manage the reviewing process, and finally create the conference schedule and published proceedings based on the accepted papers. You have already interviewed the conference chair and have discovered the following requirements for the new system (the Conference Coordinator Information System, or CCIS).

There are many others who contribute to the conference's success. There is an editor, who has final responsibility for decisions on paper acceptance, ably assisted in this process by an extensive review committee. The committee consists of a number of other researchers from various institutions around the world. These are the people responsible for reviewing the submitted papers and recommending their acceptance or rejection. The CCIS is required to keep track of the reviewers: their names, titles, institutions and emails must be recorded, along with their preferred areas for paper reviewing. Each reviewer nominates three tracks that they are prepared to review papers in from a list of all the tracks that may be covered at the conference.

Authors submit their papers to the CCIS through a web interface. The authors complete an online form with their details and upload the paper electronically. All author details (name, title, institution, email) must be included for all authors. One of the authors is also designated as 'corresponding author' to whom any emails about the reviewing process will be sent. The paper title and abstract is also included in the form. To ensure a paper is reviewed by experts in the same field, it must include a list of keywords that the editor will use to assign the paper to suitable reviewers.

The paper itself is uploaded to the CCIS via the submission form as a PDF attachment. Papers must conform to particular criteria: they must be under a maximum number of pages; be formatted according to the conference template; and must be anonymised (all information that could identify the authors is removed). If a submitted paper doesn't meet all these criteria, it is rejected without being reviewed. If it is submitted after the closing date it is also rejected immediately. Each paper is assigned a system-generated number to ensure it remains anonymous throughout the reviewing process.

Each paper is reviewed by two reviewers. The reviewers are sent the paper and asked to assess it against a number of criteria, using an online form. Reviewers are given three weeks

to assess a paper and are reminded by a system-generated email if they have not returned their reviews in that time. Each reviewer is asked to review a maximum of four papers.

When all the reviews for a paper have been received, the editor assesses them and assigns the paper to a category: accepted, accepted subject to revisions, and rejected. The corresponding author is notified of the fate of their submission via a system-generated email. This email contains the reviewer comments and a standard message advising the authors of the outcome.

If a paper is accepted, its authors must then upload a complete, camera-ready PDF version of it to the CCIS. If it has been accepted subject to revisions, they must resubmit the paper in camera-ready form, with the revisions made.

Once all of the accepted papers have been received, the editor works out the schedule for the conference, by assigning each paper to a particular track, date, time, and venue. This is done manually and entered into the CCIS. If changes are subsequently made (e.g. if an author withdraws their paper from the conference) the schedule is updated. Two days before the conference the final schedule is printed and included in the conference materials collected by the attendees when they arrive. The only information about a paper included in the conference schedule is its title and authors, but there is more detail in the 'Summary of papers' which is also included in the conference materials. The summary of papers lists the title and abstract for each of the conference papers, along with its authors, in alphabetical order of first author. Finally, there is a list of all authors and their institutions, in alphabetical order of author.

TO DO:

Answer questions 1-5 below. Note the following points:

- You may need to make assumptions where information in the case is incomplete: **state any assumptions clearly**.
- Your **diagrams** should be drawn using Visio (or a suitable alternative that creates UML diagrams). Use the appropriate template for each diagram type. Make sure your diagrams are clear and readable.
- Your diagrams must follow correct UML notation and naming conventions, and **each diagram should include a title and legend.**
- Your models, diagrams and discussions should be **consistent** with one another throughout your analysis, assumption and design.
- Ensure your work is clearly and professionally **presented**, proofread for spelling and grammar, with a title page and table of contents. Start each main question on a new page.

- Note that identical answers without sufficient description and explanation may be considered plagiarism and result in penalties. Please read the case carefully and provide the best solution of your own in your own words.

Q1**.** **Describe** the **triggers** of the new Conference Coordinator Information System (CCIS) and **explain** the **benefit** CCIS would bring. Write in your own words and explain the reasons for each.

Q2. List the main **stakeholders** for the CCIS. For each stakeholder, **describe** their interest in the system and what aspects of it are of particular relevance to them.
You do not need to categorize the stakeholders. *Don't include the systems development team.*

Q3. (a) List and briefly **describe** the **main functional requirements** for the CCIS.

(b) List and briefly **describe** the main **nonfunctional requirements** and **additional requirements (if any)** for the CCIS.

Q4. (a) Use the **User Goal technique** to develop a list of **use cases** for the CCIS. Present your list in a table that includes the participating actors, use case name and brief use case description.

(b) Use the **Event Decomposition technique** to identify any **additional use cases** for the CCIS. These will probably be temporal and state event types. Present your list in a table that includes the event, type of event, use case name, and brief use case description. You **do NOT** need to repeat the use cases you identified in (a) here.

Q5. Create a **domain model class diagram** for the CCIS, including all classes, attributes, associations, and multiplicity. Show association classes and generalisation hierarchies where appropriate. There should be variations based on your assumption, and the diagram should properly reflect the assumption.