

CSCI 927: Service-Oriented Software Engineering

CCNU-Wollongong Joint Institute

Project Guidelines

- Project due: Week 12 (Monday), in class, followed by group-based presentations in Week 12 (Thursday).
- Mode of submission: In each instance, submit a report in hardcopy (plus any associated deliverables - the nature of which will be determined by the specific project topic).
- Group-work is compulsory for this project. Ideally, you should form groups of 4 members.
- The major project is intended to provide you with an opportunity to generate some **critical thinking and analysis** and to **generate innovative ideas** based on the techniques and technologies you are learning about in this subject. The emphasis is on the **design of a service-oriented system** through which the principles learned in the lectures/workshops are practiced. Examples of possible project topics are provided below. Note that this is not an exhaustive list. **You are encouraged to come up with your own ideas.** *It is important that you discuss your project ideas with the instructor and obtain approval before embarking on the project.*
- Research papers published in this space provide good examples of the kind of innovative thinking that you might engage in. Look at the following conferences and journals to help with your innovative ideas (most of these can be freely accessed online through the UOW/CCNU library).
 - Conferences:
 - International Conference on Service-Oriented Computing (ICSOC)
 - International Conference on Business Process Management (BPM)
 - International Conference on Advanced Information Systems Engineering (CAISE)
 - International Conference on Conceptual Modeling (ER)
 - The IEEE EDOC Conference
 - Journals:
 - IEEE Transactions on Services Computing
 - IEEE Transactions on Software Engineering
 - Data and Knowledge Engineering
 - Information Systems

Project List for possible selections:

Project 1: A web portal for online ordering catering services

Project 2: A web portal for online purchase services

Project 3: A web portal for online appointment services

Project 4: A web portal for booking services

Other projects may be considered are:

- An application of process mining in a practical setting
- Applications of crowdsourcing or human computation in service/process modelling
- The development of an enterprise service architecture for a real-life scenario/project.
- The design of a process engine that selects the next best task (or next best sequence of tasks) to execute, from a task library, to achieve robust process execution in the face of unpredictable impediments arising from the process context.

- A detailed service-oriented modeling, analysis and design exercise for a real-life SOA project (or portion of a project).

A project can be selected by multiple groups. There is no restriction on the choice of above projects, but the difficulties of provided projects will be considered in your final mark due to their varieties. Therefore, you should be aware of that when you are choosing the project.

You will be required to hand in the following interim deliverables:

- A 1-page project proposal by week 8 (Monday). This should present a detailed description on your project, including a list of what you expect to deliver as your final project submission.
- A 1-page project progress report by week 10 (Monday).
- A 1-page final project report by week 12 (Monday).

It is important to note the extremely short time frame available for the project. Hence, the scope of the project must be confined to be feasible within the available time. It is strongly advised to identify the essential must-have services and the good-to-have services. It is even better you can develop a road map showing which services you will provide in your first release of the system and future releases of the system. Note that the emphasis is not on the implementation and testing of your service-oriented system. This is also reflected in the mark allocation for each aspect of project assessment.

The following is to be observed throughout the project: brainstorming the project scope and development of application requirements with your project partner(s), group-based design of the service-oriented system, the quality of reports and the presentation, etc. Hence, the following aspects will be assessed.

- Application of Design Principles with proper use of design tools
- Application of Analysis with proper techniques
- Accomplishment with respect to your scope of project
- Qualities of reports and the presentation

Max. marks for the project : 35 marks