COMP9323 - Software as a Service Project

Term 2 2021

Course Details

Course Code: COMP9323

Course Title: Software as a Service Project

Units of Credit: 6

Course Website: https://webcms3.cse.unsw.edu.au/COMP9323/21T2/

Handbook Entry:
https://www.handbook.unsw.edu.au/undergraduate/courses/2021/COMP9323/

Course Summary

This course aims at allowing students to pursue a group-based and practical projects practicing Software as a Service (SaaS), service oriented architectures and agile software engineering methods in an identified area of interests such as learning, development, e-commerce, health, customer support, project management, online communities, online Q&A, entertainment, social and family interactions.

During this term proposed projects will focus on supporting people, communities, businesses and stakeholders. Groups are also encouraged to suggest project proposals in their areas of interests. On the technical front the projects will be an opportunity to learn by doing: learning emerging concepts, techniques and technologies, such as conversational services, crowdsourcing services, project management and social network technologies.

Student groups will be supervised by a mentor throughout the project phases: features elicitation/ design/implementation/testing/demonstration. Students will be required to participate in peer reviews for the purpose of learning assessment processes in project-based learning and teaching. Project demonstrations will be exhibited to all members of the class at the end of the session.

In this course, we will follow a product-based framework to the project-based learning approach. Students are expected to engage themselves in research and self-study of the materials and technologies required for this course.

The main features of the course are:

- Group-based project related to engineering SaaS solutions
- Learning to develop complex systems through projects
- Learning software as a service and agile software engineering methods
- Projects may focus on an identified area of interests (e.g., technology enabled solutions for education, streaming services, project management, health and safety, advice, remote

work, wellbeing, socio-technical services for mentoring, project-based learning and research)
- Guest lectures on topics related to topics that are relevant to software prototyping, software development, agile software engineering, messaging bot's development.

Course Staff

- Boualem Benatallah (Lecturer In Charge), mentors
- **Email:** b.benatallah at unsw.edu.au
- **Phone:** 93854767

Assumed Knowledge:

- Good knowledge of programming and basic knowledge of Web technologies
- Good knowledge of design concepts and techniques such as UML class diagrams, sequence diagrams, entity relationship diagrams, and service-oriented design

These are assumed to have been acquired in basic computing equivalent (good programming knowledge)

Student Learning Outcomes

After completing this course, students will:

- Learn the process of building a large SaaS product in collaboration with other project members
- Acquire project-based learning attributes including collaboration, critical thinking, and authentic learning
- Learn the process of developing a software as a service
- Learn the process of developing software using agile software engineering methodologies
- Understand peer software artefacts review
- Integrate several separate components to build an integrated system
- Develop appropriate testing strategy and methodologies
- Develop software documentation for various stakeholders
- Present project results to peers and mentors

This course contributes to the development of the following graduate attributes:

Graduate Attribute

- Skills involved in scholarly enquiry
- Capacity for analytical and critical thinking
- Ability to engage in independent and reflective learning

- Skills to locate, evaluate and use relevant information
- Capacity for initiative and creativity
- Appreciation of and respect for, diversity
- Capacity to contribute to, and work within, the international community
- Skills required for collaborative and multidisciplinary work
- Appreciation of, and a responsiveness to, change
- Respect for ethical practice and social responsibility

Course Schedule

It should be noted that this is a project-based course. However, the lecturer will hold project meetings to introduce the main phases of the project. These project meetings include briefs about project phases and deliverables, specific techniques, and tools. There will be regular weekly meetings with the project mentors. The course will also have some guest lectures.

Project meetings and mentoring sessions Time:

During 21T2, students will be able to complete the course online. While groups will need to agree with their mentors on mentoring sessions time due to the number of groups we will this term, we booked the following time for project weekly meetings (i.e., briefs about project phases and deliverables, guest lectures) and mentoring session time. Attendance of the online mentoring sessions is required for all group members:

Wednesday: 18h00 – 21h00

Assessment

There will be no mid-term or final exam in this course. There will be a large project which consists of the following phases:

• **Phase zero:** groups formation Week 1
• **Phase one:** project scoping Week 2, 3
• **Phase two**: Requirement analysis & design - Week 3, 4, 5
• **Phase three**: Implementation - Prototype version 1 - Week 5, 7, 8. A first prototype version is due on week 9. Feedback will be provided by the mentors.
• **Phase four:** Implementation of final version, testing and documenting - Week 8, 9, 10 and 11. A final prototype version is due on week 11. Demonstration of projects will be organized during week 11.

Detailed marking schemes for the various deliverables will be provided in due time. Assessment takes in consideration both individual and group contributions. A late penalty of 10% per day applies to late submissions. The penalty applies to the assessed value of the deliverable; individual marks will then be calculated using the peer assessment formula after the penalty has been applied.

Communication with students

- All contact and announcements will be made via official UNSW email address only; and
- The course online management system will be the other main source of announcements and information. Students who choose to use other email accounts do so at their own risk as they may miss important announcements. You are advised to redirect your UNSW emails to your preferred email account.

Academic Honesty and Plagiarism

UNSW and CSE treat plagiarism as academic misconduct, which means that it carries penalties as severe as being excluded from further study at UNSW. There are several on-line sources to help you understand what plagiarism is and how it is dealt with at UNSW:

- Plagiarism and Academic Integrity: https://student.unsw.edu.au/plagiarism
- MyUNSW: Plagiarism and Academic Misconduct
- CSE Student Conduct: http://webapps.cse.unsw.edu.au/cse/student-conduct.html

Make sure that you read and understand these. Ignorance is not accepted as an excuse for plagiarism.

Course Evaluation and Development

This course is evaluated each session using the standard UNSW course evaluation system.
``*Every term, student feedback is requested in a survey using UNSW's myExperience online survey system where the feedback will be used to make improvements to the course.*
Students are also encouraged to provide informal feedback during the session, and to let course staff know of any problems as soon as they arise. Suggestions will be listened to openly, positively, constructively, and thankfully, and every reasonable effort will be made to address them.''

The feedback from the previous offering was very positive and encouraging. It was first time that collaboration among students on project tasks was done in full online mode. During 2021 we will streamline further the online collaboration among students based on 2020 offering experience.