

The 'How We Build Software' Seminar Series

Notes for Students

Students on COMP47480 are required to attend the 'How We Build Software' seminar series. Usually three companies deliver a seminar, each on separate date. The seminar takes place during the 3-4pm lecture slot on Tuesday. You will be informed of the exact dates, times and locations during the year.

The goal of this seminar series is to enable students to gain a deeper understanding of what is involved in developing software in a real environment. Each company is invited for a 50-minute slot. The presentation should take at most 40 minutes, allowing ample time for questions and discussion.

What is required of you for the seminar series is as follows:

1. Attend and participate. Bring pen&paper to take notes, but as usual no open laptops please. **Arrive early as the room may fill with guest attendees.**
2. Write a preliminary report on the seminar during the 1-hour practical session directly after the seminar (4-5pm). It should be one or two pages long. It is acceptable that this be a bit rough and include some 'field notes'. This report should be submitted the same week as the seminar, and forms part of your lab journal.
3. At the end of the seminar series, write an individual report of several pages that synthesises what you have heard and learned about software development from the seminars. What do all the companies have in common? How do they differ? What are the salient features of each companies approach to software development? etc. This will form part of your final lab journal submission. Further details will be provided.

The seminar series accounts for $\sim 1/3$ of the Continuous Assessment grade (three practicals of nine in total).

In your end-of-semester journal submission you'll be comparing how these companies develop software. This can be challenging, as the speakers may focus of different aspects of software development. For this reason, ensure that you grasp the following aspects of what the companies do:

- **Software methodology.** E.g., what approach is used, how is it tailored for your company? How long are you using it for? Is it successful, and how do you evaluate this?
- **Use of modelling** (e.g. using UML). E.g., do you do any modelling? Is UML ever used? If so, in what context?
- **Testing.** E.g. how does your company try to ensure a correct product is built?
- **Refactoring.** E.g. is refactoring part of your process? Are devs encouraged to refactor as they go? Is radical refactoring often performed? How do you decide when this is required?
- **Software quality.** E.g. how does your company ensure that the software developed is of high quality? Are pair programming, code reviews used? SonarCube?

Use the Q&A section at the end of each seminar to tease out these topics if the speaker hasn't covered them adequately. Feel free to ask questions on other topics as well.

Please note that the seminar slides are company proprietary and may or may not be released to UCD, so make sure you write notes throughout.