Module Outline

CMPU4023 -Enterprise Application Development

Welcome to the module

- This module provides an introduction to some of the most important ideas in *enterprise application development* (EAD)
- The EAD module is concerned with software solutions development within the enterprise
- By *enterprise*, we generally mean medium to large business environments such as retail, banking, insurance, manufacturing as so on
- These businesses have large, and often complex, data processing requirements across large numbers of departments and functions involving many data sources and diverse consumer requirements

Background

- In the modern enterprise, and depending on the particular vertical concerned, many of the core critical business solutions in the enterprise are actually insourced (off-the-shelf) or outsourced (public cloud)
- Where bespoke inhouse software development does occur, it is largely concerned with <u>maintenance</u> activities, either of legacy systems or systems under active development
- Businesses are generally risk-averse to investing in new, green field development projects - we'll return to this theme in later lectures
- Enterprises have very particular solution requirements, cultures, customs and practices that often set them apart and which can be challenging

Motivation

- This module addresses the skills and requirements of the application software developer who works on creating or maintaining software which runs in an enterprise
- The skills you will learn can be applied to either the provider side <u>or</u> the consumer side of the software and services supply chain
- You you could be either developing for a company that supplies the enterprise or you could be within the enterprise itself integrating solutions that are insourced from an external supplier
- In either scenario, you need to be aware of the most fundamental ideas and concerns of the enterprise development environment for success

Module Focus

- You will be almost certainly familiar with much of the supporting theory of enterprises and large-scale software development from modules you have previously taken
- Where appropriate, some of this will be revisited here to provide a context for this module's material
- But of particular interest to us, is the practitioner element of enterprise application development, i.e. some of the typical tools and techniques used in EAD
- We will investigate and use tooling which is typical and representative of what is being used in the real world today

Teaching and Learning

- This module is being taught as a *blended learning* module
- That means a mixture of offline learning and direct-contact class hours
- Over the term, you will watch a series of lecture videos like this one
- The video lectures, and accompanying slides, will provide you with the fundamental theory content of the module
- In addition, you will attend weekly instructor-led lab sessions where you will practice the theory through problem solving exercises
- All of the technologies used in this module are open-source and free to use on your own devices

Grading and Credits

- This is a 5 ECTS module requiring an overall pass grade of 40%
- You will get your module credits in one of two ways:
  - Final, end-of-term examination (70%)
  - Continuous assessment (30%)
- The exam will be a typical closed-book, unseen paper with a choice of questions
- Throughout the module, the examinable material required for this exam will be clearly sign-posted for you
- The continuous assessment will be based on your submissions from your weekly lab work and homework

Study Guidance

- As a 5 ECTS module, you should be expecting to spend about 100 hours of the term on this module
- This includes view of the online video material, the direct-contact hours in the lab and your self-study time
- Although it is not assumed that you already have an in-depth knowledge of the related technologies on this module, it is assumed that you are are proficient in one or two programming languages
- For example, languages like Java and Javascript are used throughout but this module does not spend time teaching these languages - that's up to you to do

Virtual Learning Environment

- Once enrolled on the module, you will have access to the module learning material and resources
- Webcourses will be used to disseminate videos, slides and reading list
- You will also be invited to join a Slack team through which you can interact with the instructor, tutors and fellow students
- You are strongly encouraged to get involved, fully engage and help yourself and others to learn
- Webcourses and Slack will be the primary communications tools between you and the module instructor

Getting Help

- All of the technologies covered in this course are open and well documented on the web
- There is no course text or prescribed reading list although useful resources, articles and papers will be made available to you throughout
- Use the Slack channel to ask questions. Where possible please post the question in a public channel so others can get the opportunity to answer or learn from the question and answer
- The instructors will be available on-hand in the weekly labs to help you
- You can also contact the instructors directly over Slack and search for documents and conversations over the course of the term

Summary

- Thank you for choosing this class. I believe you will thoroughly enjoy the learning experience
- The technologies you will learn here will be very valuable for you in the remainder of your course studies and in your chosen career
- Please participate as much as you can during the term. You can only get out as much as you put in
- As the teaching is partially online so there is a different discipline required for successful learning in this module
- The very best of luck!