Course Overview

Software Architecture

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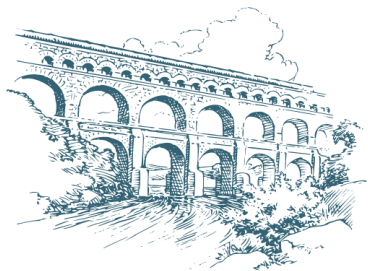
University of Queensland



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- Using *architecture patterns* to structure software systems to be *maintainable*.
- How to build software that is *reliable* and *fault tolerant*.
- How to build software that is *scalable*.

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Lectures

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- Deploy containers to cloud platforms using *Terraform*.

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- Use cloud platform tools to *monitor* and *scale* applications.

§ Assessment

Assessment

Project Proposal	5%
Cloud Infrastructure Assignment	35%
API Functionality	14%
Deployed to Cloud	8.75%
Scalable Application	12.25%
Architecture Presentation	25%
Capstone Project (Delivering Quality Attributes Project)	35%

Building a Scalable Architecture

1. Build a *RESTful web API* according to our specification.
2. *Test* that the API satisfies the specification.
3. *Deploy* the API to a cloud platform.
4. *Scale* the API to handle *high loads*.

Capstone Project

1. *Propose* a *software system* that you would like to build.
2. Vote on other proposals on which you would like to work.
3. Teams will be assigned to work on selected projects.
4. *Design* and *implement* the project.

Architecture Presentation

- Team presents details of project architecture.
  - *Everyone* presents.
- *Individuals* present on different sets of questions.
  - Compare and contrast with another architectural pattern.
  - Pros and cons of architecture.
  - Implementation characteristics of design.
  - Potential security risks of architecture.
- *Everyone* is expected to understand entire architecture.
  - Questions can be directed to *anyone*.

§ You and Us

Who are we?

Richard Thomas

Evan Hughes

Riza Wibawa

Zaidul Alam

Question

Who are *you*?

Course Website

All course material is hosted on the course website:
`https://csse6400.uqcloud.net`

If you find any *errors* or have any *improvements*, please submit a pull request on GitHub:
`https://github.com/CSSE6400/software-architecture`

GitHub Username Registration Form: 4pm on Feb. 24

You need access to the CSSE6400 organisation on GitHub

- *Practicals* – Access to code
- *Assessment* – Most submissions

https://tiny.cc/csse6400reg