Master's Dissertation / Civ.Ing.Exjobb

- **Project requirements**
  - **Prototype implementation** ➔ **10 weeks 100%**
  - **In-depth background study**
  - **In-depth project evaluation**

- **implementation & testing** ➔ **10 weeks 100%**
- **writing & literature searching** ➔ **10 weeks 100%**

- **Dissertation structure (C-Dissertation)**
  - **Ch. 1: Introduction**
  - **Ch. 2: Background** ➔ **expand**
  - **Ch. 3: Design**
  - **Ch. 4: Project (Prototype)**
  - **Ch. 5: Evaluation** ➔ **expand**
  - **Ch. 6: Conclusions**

Dissertation Structure example

- **Project Prototype implementation**
  - **Implement virtual machines & DBs on the cloud in a standardised way**

- **Dissertation structure (C-Dissertation)** **60/80pp**
  - **Ch. 1: Introduction** **3/4pp**
  - **Ch. 2: General Background** **7/9pp**
  - **Ch. 3: The Cloud** **7/9pp**
  - **Ch. 4: Virtual Machines & DBs** **7/9pp**
  - **Ch. 5: Standards** **7/9pp**
  - **Ch. 6: Project Design** **7/9pp**
  - **Ch. 7: Project Implementation** **7/9pp**
  - **Ch. 8: Project Assessment : Ch. 6 & Ch. 7** **7/9pp**
  - **Ch. 9: Project Assessment : Ch.3, Ch.4, Ch.5** **7/9pp**
  - **Ch. 10: Conclusions** **3/4pp**

Literature Study - example

- Ch. 2: Background – to this prototype
  - Technology (Azure; application / interface – web?)
  - Existing Systems: Microsoft Azure, other? Descriptions

- Ch. 3: The Cloud ➔**more general**
- Ch. 4: Virtual Machines & DBs ➔**more specific**
- Ch. 5: Standardised way ➔**meaning?**

- **How do you explain what all this means?**
- **How do these systems integrate?**

What is a Literature Study?

- An overview of the latest literature (2000-2017)
- Short historical background (early papers / origins)
- Historical development (2000-2012)
- Latest developments (2012-2017)
- Main (commercial) actors – Microsoft, Google, …
- Wikipedia: https://en.wikipedia.org/wiki/Cloud_computing
  - 2006: Amazon “Elastic Compute Cloud”
  - 2008: NASA’s OpenNebula
  - 2010: Microsoft Azure (2014)

Definitions & Terminology

- How do you sort this out?
  - Again see https://en.wikipedia.org/wiki/Cloud_computing
  - Which is just ONE article!!!
  - How do you present this for a non-expert?

- What are the standard models?
  - E.g. SaaS, PaaS, IaaS – what does this mean?
    - Software as a service
    - Platform as a service
    - Infrastructure as a service
    - See the Wikipedia article (reference above)

Assessment

- Ch. 8: Project Assessment ➔ more specific
  - With respect to the technology & Design (Ch.2, Ch. 6)

- Ch. 9: Project Assessment ➔ more general
  - With respect to the cloud, virtual machines (Ch. 3, Ch.4)
  - Other aspects:
    - Security? Customer sensitive information
    - Jurisdiction? Physical location of H/W

Other possibilities…

- Performance evaluation
  - Running experiments on the prototype
  - Concrete measurements
  - Which performance metrics?
- Comparison with a similar system
  - ➔ 2 similar projects A vs B
  - Individual project evaluation
  - Comparison evaluation

Other possibilities…

- Comparison with an existing system
  - ➔ results are already available
  - Benchmark results?
  - Standard testing?
- Paper study comparison
  - Check the current literature
  - Test results available?