



Unternehmensweite IT Architekturen

Part 1: IT Systems Architecture, Roles and Responsibilities of IT Architects

Part 2: Solution Architecture, based on a practical Case Study

Part 3: SOA (Service Oriented Architecture), EA (Enterprise Architecture), Governance

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Allgemeines

- Vorlesung mit Übungen
- Jeden Montag von 15. September bis einschliesslich 15. Dezember
- Jeweils 10:15 bis 11:45 mit 5 Minuten Pause
- Case Study (Teil von Part 2 der Vorlesung)
 - alle Vorlesungsteilnehmer präsentieren einen Teil eines Lösungsansatzes (notwendig für den Erhalt der Credit Points)
 - alle Vorlesungsteilnehmer beschreiben einen Teil eines Lösungsansatzes (notwendig für den Erhalt der Credit Points)
- Vorlesung auf Deutsch – Slides English

What you can expect

- **Opportunity to learn, apply and demonstrate architectural thinking through a series of lectures, practical exercises and a final presentation.**
- Be able to highlight the **responsibilities** of the IT Architect
- Highlight the value that an IT Architect brings to the solution by **leading** the technical team, reducing **risk and complexity**, defining a technical vision and approach and by ensuring that the solution succeeds
- Learn to use a methodical approach to create **architectural work products** to demonstrate understanding and application of **requirements** gathering, **scoping**, **functional** and **operational modelling**.
- Be able to explain the purpose and inter-relationships of a variety of **work products** including:
 - **System Context Diagram**
 - **Architecture Overview Diagram**
 - **Use Cases**
 - **Component Model → Functional View**
 - **Operational Model → Infrastructure View**
- Learn to justify key **architectural decisions** and to explain how the design meets the stated requirements.
- Analyse, question and refine a set of **business requirements** and translate them, in the context of an existing technical environment and strategy, into a **practical solution proposal**

Unternehmensweite IT Architekturen – Part 1: 15., 22., und 29. September IT Systems Architecture & Roles and Responsibilities of IT Architects

- What is IT Systems Architecture
 - Introduction and Overview
- Why Architecture
 - Interconnection with business and other IT Organizations
- What do Architects do all Day
 - IT Architect Roles and Responsibilities
- Developing a Solution's IT Architecture → **Case Study**
- Architects working together with other IT and business professionals
- Qualities and Constraints in IT Architecture
 - Non-Functional Requirements
 - Examples: Availability and Performance
- Requirements, Risks, Reviews
- Required and recommended reading → **Mündliche Prüfung**

Unternehmensweite IT Architekturen – Part 2: 6 October – 10 November

Solution Architecture

- **Case Study – Introduction**
 - Qualities and Constraints
 - Performance, Availability
- **Security, Usability, Maintainability**
- **Functional versus Non-Functional Requirements**
- **Architecture Models**
 - Component Model
 - Operational Model
- **Case Study presentations on November 10**

Unternehmensweite IT Architekturen – Part 3: 17 November – 15 December

SOA, EA, Architecture Management (Governance)

- SOA (Service Oriented Architecture)
 - From Client-Server to SOA and ESB
 - How to get Services
 - Different types of Services (Information, Portal, Business Process Management)

- EA (Enterprise Architecture)
 - How to get Business involved,
 - Enterprise IT View
 - Business Model

- Architecture Management
 - How to get Business involved
 - Governance, Transition

Anforderungen für den Erhalt der Credits

- Mitarbeit an der Case Study in Arbeitsgruppen
 - Präsentation im Team
 - Ausarbeitung eines Dokuments
- Präsentation der Case Study in einem Referat (5 – 10 Minuten) mit Slides
 - Wird im voraus terminiert → Anwesenheitspflicht !
 - Montag 10. November 2008 ist Haupt-Termin für Referate
- Mitautor am Dokument der Case Study
 - Abschnitte mit verantwortlichen Autoren gekennzeichnet
 - Abgabe des Dokuments bis spätestens 8. Dezember 2008
- Mündliche Prüfung
 - Januar 2009
 - Required and recommended reading
- Ausarbeitung und Präsentation einer weiteren Case Study aus dem dritten Vorlesungsteil (Part 3)
 - Optional, Ergänzung oder Ersatz für Case Study 1

Q & A, and Next Steps

- Q & A – Questions & Answers
- Next Steps
 - Let us know the groups working together
 - October 6, beginning of Part 2