

# SOFTWARE ARCHITECTURE

- This training workshop provides software engineers with a comprehensive course covering the critical aspects of being “architecturally centric”.
- Extending from your Object-Oriented analysis and design skills, this workshop will show you how to scope, design and test software architectures to enable an effective component based framework. The technical explanation of software architecture is combined with examples and workshop exercises.
- This course is an advanced training workshop designed for practicing/qualified software engineers. It is expected that the attendees have at least two years applied experience in Object-Oriented design using UML.
- The course is a total of two days duration and can be tailored to your specific requirements/domain.

## COURSE OUTLINE

### Architecturally Centric:

- Team Structure & Roles
- The Process
- Iterative Development 🖱
- Elements of an Architecture

### Architectural Scope:

- Architectural Requirements 🖱
- System Metaphor
- The “\_ilities” (changeability, etc)
- Role of Use cases

### Testing the Architecture:

- Executable Architecture 🖱
- Automated Test Framework 🖱

### Architectural Design:

- Logical and Physical 🖱
- Architectural Design Principles 🖱
- Architectural Patterns 🖱
- Refactoring 🖱
- Component Technology
- Frameworks

### Practical Sessions:

🌐 Real world and analogous (town planning) examples are reviewed throughout the workshop.

🖱 Hands-on workshop exercises are undertaken for these topics to gain a more practical appreciation. Each exercise builds upon the same common system architecture ensuring an end-to-end appreciation of the techniques.

