

# 2016

London, 8-10 November 2016

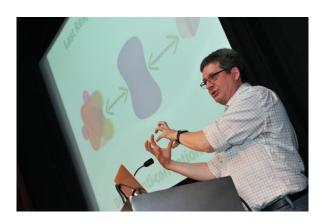
## **Creating software architectures**

#### **Neal Ford & Mark Richards**

One of the primary skills an architect must have is the ability to create, document, and communicate software architectures. Unfortunately, too many architects haven't gained the right level of proficiency in this skill, resulting in applications that don't meet the needs of the business.

This three-day hands-on architecture workshop is designed to provide you with the knowledge and skills necessary to effectively create, document, and present software architectures. Through interactive course materials and architecture exercises, this course will teach you how to analyse your business and technical needs, select the right architecture style, create architectural components, and effectively diagram and document your software architecture.

Knowing where to start is exactly where we begin the workshop. Through interactive exercises you will learn how to identify key architectural characteristics that shape your software architecture. Using those characteristics, you will then learn how to analyse and use various architecture patterns and styles to make intelligent choices as to which architecture style is best suited for your particular needs.





While knowing what architecture pattern best fits your situation is critical to the success of your architecture, that is only the start. Creating an architecture is also about being able to identify and define architectural components – the building blocks of any software architecture. In this workshop you will also learn how to identify architecture components and refine the granularity of those components. You will also learn about component coupling and cohesion and the important role they play in creating an architecture.

Along the way, you will learn evolutionary architecture techniques that will help you evolve your architecture over time to allow your architectures to remain flexible in the face of constant change. Through interactive exercises you will also learn how to effectively diagram your architecture, document your architecture, and finally present your architecture to key stakeholders as well as developers.

This workshop is designed to be technology-agnostic, so all of the materials presented apply to any platform or language.

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#### **Workshop Outline**

#### Day 1

- Workshop logistics and introductions
- Identifying architecture characteristics
- Architecture characteristic kata exercises
- Understanding monolithic architecture patterns (Layered, Pipeline, Microkernel)
- Understanding distributed architecture patterns (Microservices, Service-Oriented, Service-based, Event Driven, Space-based)

#### Day 2

- Understanding architecture techniques and styles (CQRS, LMAX)
- Creating hybrid architecture patterns
- Identifying architectural components
- Refining component granularity
- Understanding component coupling
- Understanding component cohesion
- Putting it all together (architecture kata exercises)

#### Day 3

- Patterns of evolutionary architecture
- Software architecture anti-patterns
- Diagraming software architecture
- Documenting software architecture
- Presenting software architecture
- Diagram and presentation kata exercises

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### **Speaker profiles**

#### **Mark Richards**

Mark is an experienced, hands-on software architect involved in the architecture, design, and implementation of Microservices architectures, service-oriented architectures, and distributed systems in J2EE and other technologies. He has been in the software industry since 1983 and has significant experience and expertise in application, integration, and enterprise architecture. He has served as the president of the New England Java Users Group from 1999 through 2003. He is the author of numerous technical books and videos, including the *Software Architecture Fundamentals* video series (O'Reilly), *Enterprise Messaging* video series (O'Reilly), *Java Message Service, 2nd Edition* (O'Reilly), and a contributing author to *97 Things Every Software Architect Should Know* (O'Reilly). Mark has a master's degree in computer science and numerous architect and developer certifications from IBM, Sun, The Open Group, and Oracle. He is a regular conference speaker at the No Fluff Just Stuff (NFJS) Symposium Series, and has spoken at more than 100 conferences and user groups around the world on a variety of enterprise-related technical topics.

#### wmrichards.com



@markrichardssa

#### **Neal Ford**

Neal is a director, software architect, and meme wrangler at ThoughtWorks, a global IT consultancy with an exclusive focus on end-to-end software development and delivery. He is also the designer and developer of applications, magazine articles, video/DVD presentations, and author and/or editor of eight books spanning a variety of subjects and technologies, including the most recent Presentation Patterns and Functional Thinking. He focuses on designing and building large-scale enterprise applications. He is also an internationally acclaimed speaker, speaking at over 300 developer conferences worldwide, delivering more than 2000 presentations.

nealford.com @neal4d

