

Advanced Software Architecture

Advanced Software Architecture will lift you as a software and solution architect to the next level in building and designing advanced distributed systems. The course teaches architecture through a new, groundbreaking approach that combines software engineering and complexity theory, providing a solid theoretical background for advanced decision-making. You get a new perspective on architecture, with concrete tools and techniques that will put you as an architect at the forefront.

Modern architects are experiencing massive increases in complexity. Together with constantly evolving platforms, products, and the pressures brought about by digitalization, it is getting harder and harder to deliver consistently. The course helps answer these challenges with a series of proven tools and techniques that have been honed over the last 12 years, with real world exercises and an aim to lift the Architect's contribution to a new level.

Advanced Software Architecture aims to provide the tools for architects to quickly embrace new thinking to deliver modern solutions, which will lead to simpler, faster deliveries, with better quality. More importantly, the course will provide a new vision of what architecture is and how it can contribute to the challenges faced by organizations today.

The course gives you:

- A quick start in effective distributed software architectures
- Tools and techniques to help navigate complexity in modern distributed systems
- A new way to think about architecture and the architect's role in the age of digitalization

Target group

- Solution architects
- Enterprise architects
- System developers
- CTOs

Previous knowledge

You can have different background.

IT Architects should have several years' experience of System Architecture, alternatively should be Senior Developers with design experience and a goal to become an Architect.

Business/Enterprise Architects should have earlier experience of System Design/development and at least some background in programming. They should have the goal to be actively involved in System Design in the future.

Infrastructure Architects are very welcome, and some have found the course very valuable, but there will be a lot of focus on software architecture.

Language

The course is conducted in English with study material in English as well.

Director of the course

Barry O'Reilly is the founder of Black Tulip Technology and creator of residuality theory. He has held Chief Architect roles at Microsoft and IDesign, been Microsoft's IOT TAP Lead for Western Europe, and Worldwide Lead for Microsoft's Solution Architecture Community. He has also been a startup CTO and was a founder of Sweden's Azure User Group.

Program

Day 1:

- Philosophy of Architecture
- Concrete Complexity for Software Engineering
- Representation in Architecture
- Residuality Theory
- Networks

Day 2:

- Modelling stress: socio-economic architecture
- Defining residues
- Surviving unknown unknowns
- Producing a real world architecture

Day 3:

- Contagion analysis and component decisions
- Adjacency matrix techniques
- Incidence matrix techniques
- Testing the architecture