TECHNOLOGY TRANSFER PRESENTS

SANDER
HOOGENDOORN

Designing, developing and deploying a Microservices Architecture

ONLINE LIVE STREAMING

NOVEMBER 11, 2022

ABOUT THIS SEMINAR

The development and maintenance of monoliths presents organizations with increasing challenges, resulting in high costs and a slow time-to-market. More and more organizations are therefore attempting to componentize their applications. The latest and greatest paradigm Microservices finally seems to deliver on the promises of Service Oriented Architecture: shortening time-to-market, scalability, autonomy, and exchangeability of technology and databases. The challenges of delivering Microservices however are equally big.

What makes a component a Microservice? How to design, develop and deploy these small services? How does collaboration between analysts, developers, testers and operations change the organizations?

During this one day course, from his years of experience in Agile, Scrum, requirements, architecture and code Sander Hoogendoorn shares the voyage that implementing a Microservices landscape is. He will answer questions on modeling and designing Microservices, the granularity of applications and services, the communication between services, design patterns, polyglot persistence, testing services and setting up deployment pipelines. Richly illustrated with real-life examples, this course gives a perfect introduction into this promising technology.

BENEFITS OF ATTENDING

• Get a clear understand of the strengths and weaknesses of using Microservices
• Learn to understand which problems Microservices can solve and which not
• Help you decide whether Microservices will solve your current problems
• Learn how your software architecture will evolve when you move towards Microservices and how to keep your architecture flexible
• Learn how to design and model applications, Microservices and resources in this new architecture
• Get understanding of the more explicit role of testing in a Microservices architecture, and which technique apply well
• Learn about continuous integration and continuous delivery, and how you design your deployment pipelines

WHO SHOULD ATTEND

• Managers who have clear issues with current applications, such as poor maintainability, long time-to-market, moving away from legacy code, and spaghetti architecture, and are considering Microservices
• Managers who want to understand the challenges and opportunities Microservices architectures
• Architects who want to define software architecture for successful Microservices implementations
• IT Professionals who want to understand who Microservices will influence the existing infrastructure architecture
• Business and functional Analysts who want to obtain an overview of the different design techniques used in Microservices, or who want to understand who Microservices will change their jobs
• Developers and Testers who require an overview of all new technology, frameworks and tools that are used in Microservices
• IT Managers and IT Strategists selecting new technologies
• IT Architects and Managers who need to develop an integration strategy for their company
• Consultants who need to recommend different strategies for implementing integration scenario's

OUTLINE

1. An introduction to components and services

• Introduction
• Monoliths versus Microservices
• Strengths and weaknesses of monolithic software
• A brief history of components and services

2. Introducing Microservices

• Are we beyond the hype yet?
• A definition of Microservices
• Characteristics of Microservices
• Containers and scalability
• Polyglot persistence
• Promises of Microservices
• Challenges in Microservices
• How big or small are Microservices?

3. Greenfield or brownfield?

• Presenting two real world cases
• Guiding principles from both cases
• A business process first approach
• Different levels of business processes
• An architecture first approach
• How to split up your existing code base?
• Brownfield migration to Microservices

4. Evolutionary software architecture

• Where to start?
• Introducing design patterns
• Applications, workers and services
• Service consuming applications
• Service delivering components
• Dealing with communication and REST
• Authentication and tokens

5. Designing and building Microservices

• Why modular design is key
• Guidelines for design Microservices
• The Single Responsibility Principle (SRP)
• Introducing domain driven design
• Explaining bounded contexts

• Modeling micro-applications
• Wireframes
• Smart use cases
• Mapping bounded contexts around resources
• Working with HTTP verbs
• Creating a RESTful API for you services
• Explaining Postel's law
• Introducing the resource model

6. Testing Microservices

• An overview of test techniques for Microservices
• Why manual testing isn't efficient
• Unit testing
• Behavior driven design with examples
• Introducing service contracts
• QA (with SonarQube)
• Integration testing
• Acceptance testing
• When to test what in your deployment pipelines

7. Deployment of Microservices

• Continuous integration
• Designing your deployment pipelines
• Moving towards continuous delivery
• Minimal viable products (MVP)
• Agile, Kanban and Microservices
• Microservices and DevOps
• Do Microservices change your organization?

8. Concluding

• Some final recommendations
• Do Microservices solve all challenges your IT department has?
• How to proceed?

INFORMATION

PARTICIPATION FEE

€ 650

The fee includes all seminar documentation.

SEMINAR TIMETABLE

9.30 am - 1.00 pm
2.00 pm - 5.00 pm

HOW TO REGISTER

You must send the registration form with the receipt of the payment to: info@technologytransfer.it

TECHNOLOGY TRANSFER S.r.l.
Piazza Cavour, 3 - 00193 Rome (Italy)

PAYMENT

Wire transfer to:
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Banca: Cariparma
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GENERAL CONDITIONS

DISCOUNT

The participants who will register 30 days before the seminar are entitled to a 5% discount.

If a company registers 5 participants to the same seminar, it will pay only for 4.

Those who benefit of this discount are not entitled to other discounts for the same seminar.

CANCELLATION POLICY

A full refund is given for any cancellation received more than 15 days before the seminar starts. Cancellations less than 15 days prior the event are liable for 50% of the fee. Cancellations less than one week prior to the event date will be liable for the full fee.

CANCELLATION LIABILITY

In the case of cancellation of an event for any reason, Technology Transfer's liability is limited to the return of the registration fee only.

SANDER HOOGENDOORN

DESIGNING, DEVELOPING AND DEPLOYING A MICROSERVICES ARCHITECTURE

November 11, 2022

Registration fee: € 650

If anyone registered is unable to attend, or in case of cancellation of the seminar, the general conditions mentioned before are applicable.

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SPEAKER

Sander Hoogendoorn is a dad, an independent consultant, software craftsman, architect, programmer, coach, speaker, trainer, and writer. He is seasoned in Agile, Scrum, Kanban, continuous delivery, (no) software estimation, agile requirements, design patterns, domain driven design, UML, software architecture, microservices, and writing beautiful code.

Sander changes organizations and teams and coaches them to optimize their processes, practices, architecture, code, and tests, currently as chief architect at smart energy company Quby (makers of Toon), and before as director with the agile consultancy 101 Ways, as chief technology officer at software vendor ANVA and insurer Klaverblad, as global agile thought leader at Capgemini, and as partner at consultancy Ordina. Sander authored best-selling books such as This Is Agile and Pragmatic Modeling with UML and published hundreds of articles in international magazines. He is an inspiring (keynote) speaker at international conferences, he presented hundreds of (in-house) training courses and lectured at many universities. Currently, Sander is working on a new book about the new agile.

Sander is well known for his enthusiasm and motivational capabilities, innovative skills, team building, deep knowledge of the field, quick adaptation, broad vision, and collaborative skills. An open personality, eager, driven, out-of-the-box thinker. He is not afraid of trying out new paths and techniques and has never been a nine-to-fiver. Having new ideas is a 24/7 process.