

Certificate

Alexander Rudorf

has taken part in the following GFU-training course from 2018-01-22 to 2018-01-26:

"Spring Framework"

Trainer: Torsten Friebe

Topics:

- **Introduction to the Spring Framework**
 - Uses of the Spring Framework
 - Introduction to the lightweight architecture of the Spring container
 - Typical architectures for spring-based applications
 - How the Spring Framework helps to write clean and easier-to-maintain code
 - Innovation in Spring Framework 5.0
- **Tool support for application development**
 - Plugins for Spring in Eclipse and IntelliJ IDEA DIE
- **Dependency Injection to the Spring Container**
 - Dependency Injection (DI) and Inversion of Control (IoC)
 - The Spring ApplicationContext
 - Use of XML and JDK 5.0 annotations for the configuration
 - Possible uses of auto-wiring
 - Advanced configuration via annotations with Java Config and the Spring Expression Language (SpEL)
- **Spring AOP**
 - Applications of AOP
 - Aspect-oriented programming with Spring AOP
 - The Spring Advice types
- **Spring and access to relational databases**
 - Database access with the JDBC template
- **Integration of Hibernate and JPA with Spring**
- **Programmatic and Declarative Transaction Management**
- **Develop repositories with Spring Data**
- **Spring on the web**
 - Develop web application with Spring Web MVC
 - Configuration of the dispatcher servlet
 - Request processing with annotations
 - RESTful Web Services with Spring MVC
 - Controller tests with MockMVC and Mockito
 - Use Spring Security for authentication and authorization
- **Testing with Spring**
 - Test applications with JUnit 5 and Spring TestContext Framework
 - Transactional integration testing with Spring
- **Spring and the Java EE platform**
 - Use in the application server
 - Spring and JMS
 - Spring and Java Management Extensions (JMX)
 - Scheduling with timers and thread pools
 - Caching with Spring (JCache)