

Category:

Docker from Zero to Hero #030101

Das Training läuft vom 16.06.2025 bis zum 27.06.2025 (Mo.-Fr.) und es wird auf Englisch gehalten.

Es findet sich vom 08:30 bis 17:00 statt.

Das Training findet sich nur Online statt.

Category:	DevOps
Boot Camp Training Program BCTP:	Docker (10 days X 8 hours)
Key Learning	<ul style="list-style-type: none">• Responsible for the availability, latency, performance, efficiency, deployments, monitoring, emergency response, lifecycle and capacity planning of software services• Responsible for providing L2 production support and also for delivering support and project requests and related activities• Responsible for the operational aspects of integration with new or changed applications/services and also for the integration with 3rd party systems and infrastructure• Define availability targets, service level objectives, support budgets, rollback and fix forward strategies• Encouraging, proposing and building automated processes wherever possible
Requirements	<ul style="list-style-type: none">• Shell Scripting with Bash• Good understanding of software engineering practices (git flows, code reviews, deep focus on quality, design documentation)• Basic Skills in deploying, troubleshooting, monitoring of micro-services in a Kubernetes (ideally OpenShift) cluster and distributed applications



Content - Module	<div>1. Module/day 1: Introductions</div> <div>Introduction to Container Virtualisation</div> <div>Introduction to DBs: MySQL, Elastic Search, Redis</div> <div>Introduction to APIs</div> <div>Docker Architecture</div> <div>-----</div> <div>2. Module/day 2: Intro to Git: Basics, Concepts, Workflow & Runner</div> <div>-----</div> <div>3. Module/day 3: Docker Installation & Configuration</div> <div>Docker Images: Creation and Management</div> <div>UnionFs, Running 'Hello World!'</div> <div>Container Operations, Dockerfile Understanding</div> <div>Differences and Uses of ENTRYPOINT vs CMD</div> <div>Dockerignore, Multistage Build, Optimizing Docker Layers</div> <div>-----</div> <div>4. Module/day 4: Image Registry:</div> <div>Setting Up and Security Local Registry</div> <div>Docker Hub, Downloading and Uploading Images</div> <div>Cloud vs Local Registry: Solutions and best choices</div> <div>Security:</div> <div>Container Security and Scanning</div> <div>-----</div> <div>Advanced Deployment, Logging, Monitoring, CI/CD:</div> <div>5. Module/day 5: Docker Compose 1</div> <div>Chapter 1: History and Motivation</div> <div><ul style="list-style-type: none">• You will learn why Docker was created and what it looked like before him?</div> <div>Chapter 2: Configuration</div> <div><ul style="list-style-type: none">• You will configure the Docker Engine by yourself.</div> <div>Chapter 3: Productivity</div> <div><ul style="list-style-type: none">• We will improve Docker performance on Windows and macOS. 2</div> <div>Chapter 4: Docker Image</div> <div><ul style="list-style-type: none">• Docker image as well as incremental and layered build.• What is the content of the container image archive?</div>
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6. Module/day 6: Docker Compose 2

Chapter 5: Launching and Monitoring

- Running images and monitoring operation, logs, resource use, or potential problems with the container.

Chapter 6: Building Images

- Docker image building, multi-stage builds, image reduction techniques.

Chapter 7: Good Practices

- Strategies and good practices for versioning Docker images and indicating a specific version of an image after a checksum.

Chapter 8: Publishing

- Publishing Docker images and local registry.

Chapter 9: Docker Networks / Docker Volumes

7. Module/day 7: Docker Compose 3

Chapter 10: Containerization process

- An iterative process of containerization of the sample application, solving current problems with the application only at the Docker level, in the process of building the image and running the container.

Chapter 11: Image security

- Summarize all work with image unit tests that verify each step of the work done in the workshop and prevent future regressions.

Chapter 12: Image Optimization

- Docker image building, multi-stage builds, image reduction techniques.

Chapter 13: Local GitLab instance, CI / CD

- Launching a local GitLab instance, configuring the CI / CD process for testing, building and scanning security and image structure.

8. Module/day 8: Docker Compose 4

Chapter 14: Docker Captain Exclusive

- Docker Quiz, i.e. solving questions from the Docker Certified Associate

certificate together.

Chapter 15: Docker Captain Exclusive

- "Tips and Tricks from Docker Captain " session from DockerCon, DevOps Days and Cloud Native conferences.

Chapter 16: Q&A session

9. Module/day 9: Image Registry

- Setting Up and Securing Local Registry
- Docker Hub: Downloading and Uploading Images
- Cloud vs Local Registry: Solutions and Best Choices
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10. Module/day 10: Security

- Container Security and Scanning
- Open-Source Vulnerability Scanning from a Single Dashboard