Kubernetes CKAD Advanced

Duration: 2 Days **Course Code: GKKUBCKADA** **Delivery Method: Company Event**

Overview:

If you are a Developers/Programmer and DevOps Engineer and want to work from the perspective of Cloud-Native and build to run in and with Kubernetes this training is for you. In addition to hands-on and working examples, the training looks at how to deal with Cloud-Native at the level of architecture and build your own architecture, taking into account: a cloud-native approachsafetyaccessfull automation (DevOps)existing applicationsapplication chain monitoringbuild on Kubernetes (operators);
By doing everything in the training on and with bare-metal Self Hosted clusters, you will learn things at their core. After that, you will be better equipped and able to work with any Kubernetes variant and translate the examples in the training itself to any other Kubernetes variant, such as Openshift, Tanzu, Rancer, or Managed Hosting such as GKE, AKS and EKS.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

The training is meant for: Developers or DevOps Engineers who are responsible for developing, building, or rolling out applications that need to run on Kubernetes hosting. The entry-level is: experienced with the Kubernetes Fundamentals, at the level of the CKAD curriculum.

Objectives:

- The training objectives are:
- Hands-on learning of Kubernetes and Cloud-Native principles on bare metal, with working examples.
- After this training, the participant has the basic knowledge to use Kubernetes on both on-premise and managed-hosting.
- On the basis of this training the participant gets insight into Kubernetes and an overview at the level of application, microservice, and 'modern application architecture':
- - So that a participant knows his way around building applications on, and automating applications on, Kubernetes hosting better and on the basis of insight (at a general level);
- - The choice of options related to the available technology in the Cloud Native Landscape for the benefit of building, managing, and automating the applications and the application lifecycle;
- - By explaning and showing with examples and best-practices, at an architectural level, creating a better understanding of Cloud-Native and how to build solutions with a Cloud-Native 'philosophy';
- After the training based on working and elaborated expert examples the participant can start with Kubernetes expert parts in their own organization or building solutions, partly based on obtained examples in the exam.

Prerequisites:

Having a number of years of programming experience and being able to read code are qualities that make that someone has more insight into what is happening and keeps a better overview of what is being taught. A lot of work is done with the command-line (shell) and a variety of programming languages, containers pass by in exercises such as: Go, Node.js, Angular, JAVA, Python, Ubuntu, Debian.

Minimum dexterity/basic knowledge of linux command-line (Bash, linux commands), Private Keys and Public Keys are required to follow the pace of this training.

Testing and Certification

An examination or certification does not apply to this training course.

- GKKUBCKAD - Kubernetes CKAD Professional

Follow-on-Courses:

The following training is recommended for further study:

- Kubernetes Administrator Advanced (GKKUBCKAA)

Content:

The number of topics available in the training as choice modules is more than can be covered during the training. For each training, the trainer decides in consultation with the group which topics will be covered in the training. Sometimes this can mean that the group decides on day 2:

- to start working with different parts
- or that they want to continue less hand-on, in order to cover more ground

The following choice modules are available in this training:

- Local development: KIND, Warp, Telepresence, Visual Studio Code, Lens, Octant
- Role-Based Access Control (RBAC) and Single Sign-On (via Keycloak) for Applications;
- Application Logging ; Centralized Logging
- Observability: Central Monitoring and Application Chain Monitoring through Prometheus and Graphana;
- Service Mesh: SMI, LinkerD, Istio, OSM, horizontal scaling based on latency (monitoring information);
- DevOps - Microservices Automated CI/CD: Principles, Architecture, Gitlab, Tekton
- Scalable WordPress Architecture (from monolith to Cloud-Native app)
- Build your own Wordpress CRD/Operator/Controller (application lifecycle automation)
- Release Management: your own Helm (packages, libraries) and scripting (Kustomize)

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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