

BUILDING KUBERNETES SKILLS

Course Code: 821504

Learn the practical skills needed to understand all aspects of Kubernetes.

In this course, we will discuss Kubernetes concepts and architecture of the system, the problems it solves, and the model it uses to handle containerized deployments and scaling. You will gain practical skills to succeed and understand critical concepts like clustering, scaling, extending, and securing Kubernetes. We will also cover important topics such as monitoring and troubleshooting deployments and installations in various scenarios, including local, on-premise, cloud, and multi-cloud scenarios. And lastly, we will discuss long-term aspects of living with Kubernetes focusing on supporting and maintaining solutions.

What You'll Learn

- Install, Configure various Kubernetes components, services, and configurations
- Describe the Kubernetes architecture, purpose
- Work with Kubernetes configuration files and command line tool
- Automate Kubernetes processes
- Manage workloads
- Describe, build, and deploy Kubernetes Clusters
- Use and manage Kubernetes with Helm
- Design and scale Kubernetes components
- Manage Kubernetes applications
- Extend Kubernetes objects and components
- Secure Kubernetes components and networks and plan for external security threats
- Explore Security monitoring, both proactive and reactive
- Troubleshoot Kubernetes issues, both proactive and reactive

Who Needs to Attend

- Entry DevOps Personnel
- Network and system administrators
- Developers
- Cloud computing personnel
- Cloud project managers
- Operations support looking for career advancement

Prerequisites

Learner has had exposure with cloud technologies, practices, and principles and can participate at a literate level in meetings, and discussions. The learner should be able to demonstrate an entry level skill on modern cloud services, tools, jargon and processes More advanced learners will benefit from the topics as well.

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CLASSROOM LIVE

\$3,598 CAD

5 Day

Classroom Live Outline

1. How Kubernetes Works: Containerization theory and operation principles
 1. Introduction to Kubernetes: What is/what it is not
 2. The Kubernetes Architecture
 3. Working with Kubernetes: command files and command lines
 4. Installing Kubernetes
2. Managing Kubernetes Workloads and Services
 1. Kubernetes Templating and Package Management
 2. Clustering & Containers: what is it? And what do we do with them?
 3. Kubernetes Networking
 4. Package and deployment management with Helm
3. Deploying and Scaling Applications
 1. Deploying Kubernetes Projects
 2. Scaling Kubernetes
 3. Cloud Computing and Kubernetes
4. Kubernetes Application and Security Design
 1. Kubernetes Application Management: "Cloud-native" application design
 2. Security Considerations and Practices
 3. Kubernetes Hardening
 4. Platform Hardening/External threats
5. Monitoring and Troubleshooting Kubernetes
 1. Important Log Files
 2. Kubernetes "Observability"
 3. Security Monitoring
 4. Troubleshooting

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VIRTUAL CLASSROOM LIVE

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5 Day

Virtual Classroom Live Outline

1. How Kubernetes Works: Containerization theory and operation principles
 1. Introduction to Kubernetes: What is/what it is not
 2. The Kubernetes Architecture
 3. Working with Kubernetes: command files and command lines
 4. Installing Kubernetes
2. Managing Kubernetes Workloads and Services
 1. Kubernetes Templating and Package Management
 2. Clustering & Containers: what is it? And what do we do with them?
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 4. Package and deployment management with Helm
3. Deploying and Scaling Applications
 1. Deploying Kubernetes Projects
 2. Scaling Kubernetes
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PRIVATE GROUP TRAINING

5 Day

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