Certified Containerization Architect

OEM: Arcitura • Duration: 3 Days (24 hrs) • Code: ARC-CON

COURSE MODULES & TOPICS

Module 1: Fundamental Containerization

- A Brief History of Containerization
- Operating System and Virtualization Basics
- Containers vs. Virtual Machines and Server Virtualization
- Technology and Business Drivers of Containerization
- Technical and Business Benefits, Risks and Challenges of using Containers
- Container Engines, Build Files and Images
- Pods, Hosts and Container Networks
- Fundamental Container Scalability and Availability
- Container Instances, Container Clusters and Host Clusters
- Base Container Images, Custom Container Images, and Image Immutability
- Image Registry, Package Repository and Packages
- Containerization Mechanisms
- Container Orchestrater, Deployment Optimizer, Container Scheduler
- Multi-Container Deployments
- Sidecar Container, Adapter Container, Ambassador Container
- Docker Server, Client, Registry, Objects, Swarm
- Kubernetes Pod, Kubelet, Kube-Proxy, Runtime, Cluster, Control Plane

Module 2: Containerization Technology & Architecture

- Container Image Integrity
- Container Runtime Immutability
- Container Chains
- Container Scheduling
- Volatile Container Configurations
- Container Initialization
- Container Program Observation and Monitoring
- Automated Pod Assignment
- Elastic Container Scaling
- Scaling Containers with Daemons
- Containers Duration Control

- Leader Node Election
- Single Host Multi-Containers
- Container Program Termination Control
- Container Failover and Resiliency
- Multi-Container Isolation Control
- Secure Container Connections
- Containers on Multiple Hosts

Module 3: Containerization Technology & Architecture Lab

- Lab Exercise 3.1: Solution Deployment and Optimization
- Lab Exercise 3.2: Solution Activation Prerequisites
- Lab Exercise 3.3: External Access and Concurrent Usage
- Lab Exercise 3.4: Solution Scalability and Coordination
- Lab Exercise 3.5: Solution Pre-Processing and Container Image Management
- Lab Exercise 3.6: Container Image and Deployment Management
- Lab Exercise 3.7: Container Deployment with Host Affinity
- Lab Exercise 3.8: Horizontal Container Scaling
- is authored by a dedicated courseware development team
- has a self-test, accreditation exam and professional certification
- is available via two different eLearning platforms
- undergo a common development process
- are authored to be consistent in quality, structure and style
- share a common vocabulary and symbol notation
- are authored in collaboration with subject matter experts
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