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DCA® training: Preparing for Docker Certified Associate certification

ALL-IN-ONE: EXAMINATION INCLUDED IN PRICE

3 days (21 hours)

Presentation

Demonstrate your expertise in cloud infrastructure and application containerization with this certification. Prove your skills and knowledge during this exam.

During this preparation, several notions and themes will be covered. Creating Docker images using [Dockerfile](#), configuring Docker repositories or inspecting Docker services with "Docker inspect".

At the end of our "Docker Certified *Associate*®" certification preparation course, you'll learn the best practices and strategies needed to pass your exam. The program can be adjusted by our trainer if certain points need to be addressed.

As with all our training courses, this one will introduce you to the [latest version](#) of Docker.

Objectives

- Passing the Docker Certified *Associate*® exam
- How to use Docker
- Mastering the use of Dockerfile
- Understanding how the Swarm cluster works

Target audience

- Cloud engineers
- Backend and frontend developers
- System administrators

Prerequisites

- Knowing how to use Linux
- Basic knowledge of networks
- Understanding virtualization

Software requirements

- SSH client
- Minimum 8 GB RAM (16 GB recommended)

Note: Ambient IT is not the owner of Docker Certified Associate®, this certification belongs to Mirantis®.

Docker Certified Associate® Certification Course Program

Orchestration

- Complete swarm cluster configuration with managers and worker nodes
- Demonstrate the steps for locking a swarm cluster
- Indicate the differences between running a container and running a service
- Interpreting the output of "docker inspect" commands
- Demonstrate the use of templates with "docker service create".
- Apply node labels to demonstrate task placement
- Handling a running service stack

Image creation, management and registration

- Describing Dockerfile options
- Using a register to store an image
- Apply a file to create a Docker image
- Demonstrate image tagging
- Describe how image deletion works
- Register configuration
- Modifying an image in a single layer

Installation and configuration

- Complete backup configuration for UCP and DTR
- Create and manage users and teams
- Describe sizing requirements prior to installation
- Create and manage users and teams
- Configure logging drivers (splunk, journald)
- Demonstrate the ability to upgrade the Docker engine

Networking

- Configuring Docker to use external DNS
- Using Docker to load-balance HTTP/HTTPS traffic to an application
- Deploying a service on a Docker overlay network
- Publish a port so that an application can be accessed from the outside
- Understand the container network model and how it interfaces with the Docker engine, network drivers and IPAM.
- Describe the difference between "host" and "ingress" port publishing modes
- Understand and describe the types of traffic that flow between the Docker engine, the registry and UCP controllers

Security

- Configuring RBAC in UCP
- Integrating UCP with LDAP/AD
- Describe Swarm's default security features
- Describe MTLS
- Demonstrate the creation of UCP client bundles
- Describe the default motor safety

Storage and volumes

- Describe the difference between UCP workers and managers
- Indicate which graphics driver is to be used on which operating system
- Compare object storage with block storage and explain which is preferable when available
- Describe how volumes are used with Docker for persistent storage
- Identify the steps involved in cleaning up unused images on a file system, also on DTR
- Demonstrate how to configure devicemapper

STRATEGY AND METHODS FOR EXAM SUCCESS

BLANK EXAMINATION

EXCHANGE ON SPECIFIC POINTS

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.