

COURSE ABSTRACT

Merative Cúram on Kubernetes for Business Consultants

CUR093

Course Description

As organizations move to the cloud, it is important for business consultants to have a basic understanding of cloud technologies and the value that they offer to organizations.

This course explains the essential terminology, concepts, and business benefits of cloud, DevOps, and containerization technologies, including Docker, Kubernetes, and Helm. After introducing these concepts, the course focuses on the Cúram on Kubernetes solution and its benefits.

These topics are technical in nature and therefore require a technical explanation. However, the topics are explained at a high level, and you do not require previous technical knowledge to understand them.

General Information

Delivery Method: Self-paced.

Audience: This course is intended primarily for business consultants. Project managers, business analysts, and technical staff who need a high-level overview of cloud technologies and Cúram on Kubernetes will also find the content useful.

Topics: The course covers the following topics:

- Basic concepts of cloud computing
- Containerized solutions
- Continuous integration and delivery (CI/CD) by using DevOps
- Cúram on Kubernetes offering.

- Learning Objectives:** After completing the course, learners should be able to:
- Define key cloud terms and concepts.
 - Describe the cloud service models and deployment models.
 - Distinguish between monolithic solutions, virtual machines, containerized solutions, and microservices.
 - Outline the continuous integration/continuous delivery (CI/CD) process and where it fits into DevOps.
 - Summarize the Merative Cúram Kubernetes offering.
 - List the business benefits of deploying Cúram on containers by using Kubernetes.
 - Summarize the importance of non-functional requirements, such as security and elasticity, for containerized and cloud solutions.

Prerequisites: None

Duration: 8 Hours *

Skill Level: Basic

Badge: Learners can earn a badge by answering at least 16 out of 20 multiple-choice questions correctly.

Version: This course was initially developed while Cúram was part of IBM. It was last updated for Cúram 8.2.1. The course covers core topics that do not change much from version to version.

Notes

*The course duration gives learners an estimate of how much time they need to allocate to the course to cover the core concepts. The actual time required to complete the course varies by learner. In addition, the time it takes to cover the material depends on your current knowledge of the topics and which additional resources you want to review.

Course Agenda

Unit 1 – Core Concepts

Lesson 1 – Overview of Cloud Computing

Duration: 90 minutes

- Learning objectives:** After completing this lesson, learners should be able to:
- Define the key cloud terms and concepts.
 - Distinguish between the different cloud service models.
 - Outline the features of private, public, and hybrid deployment models.

- List typical use-cases for each deployment model.
- Identify the main cloud providers in the cloud services market.

Review questions

Duration: 10min

Lesson 2 – Overview of Containerization

Duration: 160 minutes

Learning objectives: After completing this lesson, learners should be able to:

- Explain what is meant by application modernization.
- Define the following terms
 - Bare metal
 - Virtual Machines
 - Containers
 - Microservices
 - Cloud native
- List the advantages of using containers.
- Describe the purpose of Docker, Kubernetes, and Helm.
- Outline the broad approaches for moving applications to the cloud.

Review questions

Duration: 10min

Lesson 3 – Overview of DevOps

Duration: 60 minutes

Learning objectives: After completing this lesson, learners should be able to:

- Define what is meant by DevOps.
- List the benefits of DevOps.
- Outline the continuous integration/continuous delivery (CI/CD) process.

Review questions

Duration: 10min

Unit 2 – Solutions and Benefits

Lesson 1 – Cúram on Kubernetes Offering

Duration: 45 minutes

Learning objectives: After completing this lesson, learners should be able to:

- Outline the Cúram offering.
- Describe the technology stack that is required to support Cúram on Kubernetes.
- Explain the value of using containers and Kubernetes for Cúram.

Review questions

Duration: 10min

Lesson 2 – Developing Containerized Solutions

Duration: 50 minutes

Learning objectives: After completing this lesson, learners should be able to:

- List the key roles for designing and containerizing Cúram on Kubernetes.
- List the types of non-functional requirements (NFRs) that need to be considered for cloud solutions.

Review questions

Duration: 10min