

# uCertify

## Course Outline

### DevOps Fundamentals



05 Jul 2024

1. Exercises, Quizzes, Flashcards & Glossary  
Number of Questions
2. Expert Instructor-Led Training
3. ADA Compliant & JAWS Compatible Platform
4. State of the Art Educator Tools
5. Award Winning Learning Platform (LMS)
6. Chapter & Lessons  
Syllabus  
Chapter 1: Course Overview  
Chapter 2: The Basics  
Chapter 3: Development  
Chapter 4: Release and Deployment  
Chapter 5: Key Performance Indicators  
Chapter 6: Course Closeout  
Videos and How To
7. Live labs  
Lab Tasks  
Here's what you get

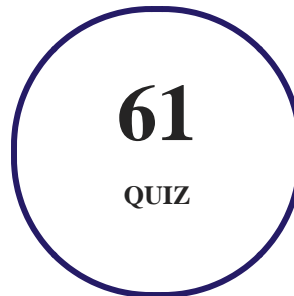
## 1. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.



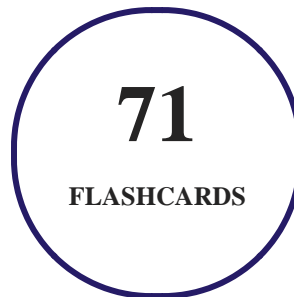
## 2. Quiz

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



## 3. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



## 4. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



## 5. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

## 6. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

## 7. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

## 8. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
  1. Best Postsecondary Learning Solution
  
- **2015**
  1. Best Education Solution
  2. Best Virtual Learning Solution
  3. Best Student Assessment Solution
  4. Best Postsecondary Learning Solution
  5. Best Career and Workforce Readiness Solution
  6. Best Instructional Solution in Other Curriculum Areas
  7. Best Corporate Learning/Workforce Development Solution
  
- **2016**
  1. Best Virtual Learning Solution
  2. Best Education Cloud-based Solution
  3. Best College and Career Readiness Solution
  4. Best Corporate / Workforce Learning Solution
  5. Best Postsecondary Learning Content Solution

6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

## 9. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

# Syllabus

## Chapter 1: Course Overview

- Course Breakdown
- Pre Requisites

## Chapter 2: The Basics

- What is DevOps?
- DevOps Building Blocks
- DevOps Best Practices
- Why Containers?
- What is a Pipeline?
- Continuous Integration and Continuous Delivery
- Continuous Deployment
- Pipelines - An Illustration
- Summary

## Chapter 3: Development

- CI/CD Strategy

- Source Code Management
- Build Management - An Illustration
- Summary

## Chapter 4: Release and Deployment

- Release Management
- Release Management - An Illustration
- Reliability Engineering
- DevOps Tools and Workflows
- Infrastructure as Code
- Automation
- IaC CloudFormation - An Illustration
- Jenkins - An Illustration
- GitHub - An Illustration
- Summary

## Chapter 5: Key Performance Indicators

- KPI Metrics



- KPI Tools
- Monitoring and Management
- AWS CloudWatch - An Illustration
- Summary

## Chapter 6: Course Closeout

- Summary Review
- Additional Resources
- DevOps Job Outlook - An Illustration
- Course Closeout

## Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

**35**

VIDEOS

**05**

MINUTES

## 10. Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

## Lab Tasks

### The Basics

- Using Azure DevOps
- Creating a Cluster using AWS Fargate
- Sandbox: Node-Red
- Using AWS EKS
- Creating a VPN Connection in GCP
- Creating a VPC Endpoint

### Development

- Creating a CloudWatch Dashboard
- Working with JShell
- Using AWS CodeCommit

### Release and Deployment

- Installing Jenkins
- Creating an AWS CloudFormation Stack
- Writing, Reading, and Parsing YAML Files
- Installing Terraform

- Installing and Configuring Ansible
- Creating an Application Using AWS Elastic Beanstalk

### Key Performance Indicators

- Creating an Instance in GCP
- Backing Up and Restoring Amazon DynamoDB Tables
- Creating a Lambda Function
- Creating a Kinesis Data Stream
- Configuring Access to AWS KMS Keys

## Here's what you get

**20**

LIVE LABS

**20**


VIDEO TUTORIALS

**01**


MINUTES

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