

CHARTERED 
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

CERTIFIED DEVOPS PROFESSIONAL™

CDEVOPS™

**Fully Accredited
By:**

Chartered Institute of
Professional Certifications

CPD
Certification Service





PROGRAM OVERVIEW



Seen as the paradigm of future IT, DevOps is seen to be one of the most sought-after skills in the IT industry. DevOps enables improvement in software deployment, reduced failure rate, faster mean time to recover in the event of incident or fault as well as more stable operating environment characterized by significantly lower downtime. Companies that have embraced DevOps are 3 times more likely to see an increase in market share and twice as likely to see revenue and profit growth, in addition to 50% improvement in customer retention and acquisition.

This Certified DevOps Professional (CDevOps™) program enables participants to earn hands-on real-world experiences in developing automation to deploy and manage infrastructure in the Cloud and in a **repeatable and calable fashion**. This program elaborates techniques to architect software in a scalable way and to redesign legacy applications and break monoliths into micro-services. This is done by introducing and demonstrating several tools and technologies, including **Cloud services, Serverless Infrastructure, Kubernetes cluster, Infrastructure as Code and Continuous Integration/ Continuous Development tools such as Jenkins**.

By the end of this program, you will receive the designation of **Certified DevOps Professional (CDevOps™)** that can be used across your professional credentials, CV and LinkedIn profile. Globally demanded and recognized, this trademarked credentials that can only be used by professionals who have completed and passed our accredited Certified DevOps Professional program.

ACCREDITATIONS



4.8




4.6



KEY SKILLS YOU WILL GAIN

From This Program



**DEVOPS AUTOMATION
DEVSECOPS
DOCKERFILE
CONTINUOUS INTEGRATION (CI)**

**CONTINUOUS DELIVERY (CD)
AGILE
DEVOPS COLLABORATION
LEAN MANAGEMENT**

**CONFIGURATION MANAGEMENT
MULTICLOUD STRATEGY
BAMBOO AND JENKINS
CLOUD INFRASTRUCTURE**

**GITHUB
MICROSOFT AZURE
KUBERNETES
DEVOPS PROJECT MANAGEMENT
CONFIGURATION MANAGEMENT**

**CHEF & ANSIBLE
LEGACY APPLICATION**

YOUR FACULTY DIRECTOR



NIRANJAN PANDEY

Faculty Leader and Contributor

Niranjjan Pandey has over **20 years of experience** in the IT industry. As a **Chief Cloud Technologist**, he has handled many Design, Development, Build, Integration, Release, Delivery Management, and Migration of DevOps tools involving cloud infrastructure services such as AWS, Azure and GCP.

As a **leading DevOps expert**, he has **designed and implemented the DevOps platform** (automating build, deployment automation, test, SDLC orchestration, environment management, monitoring, and production release procedures) for large organizations. With his mastery over App containerization technology, Niranjjan has helped multiple businesses **build and automate microservices, taking DevOps to the Next Level with Docker and Kubernetes.**

He has extensive expertise in setting up configuration and management tools like **Chef, Puppet, Jenkins, and Ansible**; Writing puppet manifests, implementing Puppet agent-based and agentless configurations. He's well-versed in the optimization of enterprise Redhat OpenShift systems. Being a maven in Ansible, he has provisioned AWS environments using Ansible Playbooks. He has also helped design, implement and migrate scalable enterprise monitoring systems like Splunk.

Niranjjan is **one of the most sought-after mentors and consultants for DevOps** in the technology circles. He is also presently serving as an **advisor and a member of the board of directors for many technology firms.**

OUR PARTICIPANTS

Over 70% of FORTUNE 500 Companies Have Attended Our Accredited Programs Before



Goldman Sachs



SAMSUNG



ExxonMobil



BURBERRY



citi



IKEA



VOLVO



HYUNDAI



Pfizer

Life is our life's work



Nestlé®

PROGRAM AGENDA



MODULE 1: IMPLEMENTING DEVOPS AUTOMATION

- Lesson 1: Principle of DevOps
- Lesson 2: Key DevOps Terminologies
- Lesson 3: Lifecycle of DevOps
- Lesson 4: DevOps Management Tools
- Lesson 5: DevOps Project Management Practices
- Lesson 6: Different Phases of DevOps Tools and Processes
- Lesson 7: Evaluation of DevOps
- Lesson 8: Templates for DevOps
- Lesson 9: Pivot Tables Part 1-5
- Lesson 10: Choosing DevOps Tools and Developing a DevOps Culture
- Lesson 11: DevSecOps and DevSecOps Workflow

MODULE 2: ELEMENTS OF DEVOPS ENGINEERING

- Lesson 1: The Architecture of Legacy application and Trap Prevention
- Lesson 2: The Advantages of Updating Legacy Apps
- Lesson 3: Migration from Legacy to CloudOps
- Lesson 4: Support System Components
- Lesson 5: Benefits of ORA and RCA
- Lesson 6: Choosing the Right Failover Type to Meet SLAs
- Lesson 7: Benefits of Perceived Organizational Support
- Lesson 8: Organizational Support Management Tools
- Lesson 9: Legacy and Hosted Apps Support System

Lesson 10: Assisting with Technical and Security Issues

Lesson 11: Issue Tracker Setup

Lesson 12: Ticketing System Setup

MODULE 3: THE DEVOPS MINDSET

- Lesson 1: DevOps and its associated Methodologies
- Lesson 2: Adopting a DevOps Mindset
- Lesson 3: Mindset: DevOps vs Traditional
- Lesson 4: DevOps Mindset Elements
- Lesson 5: Values of the DevOps Mindset
- Lesson 6: The Advantages of a DevOps Mindset in Automation
- Lesson 7: Cloud Role in Adopting a DevOps Mindset
- Lesson 8: The Evolution of Deployment Architectures
- Lesson 9: Principles and Methodologies of DevOps
- Lesson 10: DevOps and CloudOps Tools
- Lesson 11: Setting up DevOps Tools on AWS
- Lesson 12: DevOps Collaboration Using BitBucket
- Lesson 13: Configuration Management for a Multi-Deployment Environment

PROGRAM AGENDA



MODULE 4: TECHNOLOGIES FOR DEVOPS ENGINEERS

- Lesson 1: Cloud Infrastructure and Service Models Components
- Lesson 2: Cloud Platform Technologies
- Lesson 3: Architecture of the Cloud in General
- Lesson 4: The Logical Architecture of AWS and Its History
- Lesson 5: Azure Cloud Services
- Lesson 6: GCP Services
- Lesson 7: Comparing the Cloud Capabilities of IBM VMWare and Kamatera
- Lesson 8: CloudOps Support Engineer Tools
- Lesson 9: Management of automation and configuration
- Lesson 10: Classification of Support Levels
- Lesson 11: EC2 Commands
- Lesson 12: Common Azure Commands
- Lesson 13: Common GCP Commands

MODULE 5: ESSENTIAL DEVOPS TOOLS

- Lesson 1: Using Bamboo and Jenkins
- Lesson 2: Comparison of Test Automation and Tools
- Lesson 3: JMeter and API Testing
- Lesson 4: Configuration Management Tools
- Lesson 5: Tools for Containerization
- Lesson 6: Comparison of Release Orchestration Processes and Tools
- Lesson 7: Tools for Continuous Monitoring

MODULE 6: THE DEVOPS DEPLOYMENT PIPELINES

- Lesson 1: AWS CodePipeline
- Lesson 2: Continuous Integration Implementation Methodology
- Lesson 3: Pipeline Stage Terminology and Procedures
- Lesson 4: Setting up Continuous Deployment and Delivery
- Lesson 5: Creating Workflows for Continuous Integration
- Lesson 6: AWS CodePipeline Process Executions
- Lesson 7: Using CodePipeline coupled with CodeCommit and GitHub
- Lesson 8: CloudWatch Configuration for Triggering Pipelines
- Lesson 9: Working with Deployment Groups
- Lesson 10: APIs for Pipeline Configuration: Actions and Data
- Lesson 11: Features of Azure Pipelines
- Lesson 12: Building CI/CD Pipeline
- Lesson 13: Azure Pipelines Terminology and Components
- Lesson 14: Azure Pipelines Job Types
- Lesson 15: Using Azure Pipelines to create a GitHub repository
- Lesson 16: Azure Pipelines: Clone, Import and Export
- Lesson 17: Build Azure Pipelines by Adding Jobs
- Lesson 18: Different Types of Trigger in Azure Pipelines
- Lesson 19: Components of Azure Pipelines Ecosystem

PROGRAM AGENDA



Lesson 20: Types of Deployment Environments
Lesson 21: Using Azure VMs and Setting Up an Environment
Lesson 22: Using Azure Pipelines to Create Container Images
Lesson 23: Azure Pipelines Artifact Types
Lesson 24: DevOps Pipeline Products of GCP
Lesson 25: Google's CI Implementation Strategy
Lesson 26: Advantages of GCP Approach for Continuous Delivery
Lesson 27: Cloud Build Setup and Configuration
Lesson 28: Working with Cloud Build GitHub App
Lesson 29: GCP Cloud Components & Cloud Source Repo Benefits
Lesson 30: Implementation Methodologies for CI/CD Pipelines
Lesson 31: Google's Automated Deployment Recommendation

MODULE 7: IMPLEMENTING DEVOPS AUTOMATION

Lesson 1: DevOps Tasks and Role of Automation
Lesson 2: Infrastructure Management Components
Lesson 3: Advantages of Automation
Lesson 4: Best Practices and CAMS
Lesson 5: DevOps Practice and Technology
Lesson 6: Automation Strategy Use Cases
Lesson 7: Implementation of Automation
Lesson 8: Concept and Tools for Release Management

Lesson 9: Using Git and Jenkins to Implement Release Management
Lesson 10: Delivery Models
Lesson 11: Build Automation Tools
Lesson 12: Setup Automation Workflow
Lesson 13: Process of Deployment Automation
Lesson 14: Workflow for Test Automation
Lesson 15: Creating a Framework for Test Automation

MODULE 8: DEVOPS AUTOMATION ACROSS PLATFORMS

Lesson 1: Multicloud Strategy
Lesson 2: Designing Multi Architecture
Lesson 3: Multicloud and Deployment Drivers
Lesson 4: Choosing the Right Architecture Patterns
Lesson 5: Multicloud Networking Topologies
Lesson 6: Multicloud Frameworks
Lesson 7: Multicloud Environment and CloudOps
Lesson 8: AWS Multicloud Ops Tools
Lesson 9: Azure Multicloud Ops Tools
Lesson 10: GCP Multicloud Ops Tools
Lesson 11: DevOps Automation Patterns on Multicloud
Lesson 12: Framework for Multicloud DevOps

PROGRAM AGENDA



MODULE 9: CI/CD IMPLEMENTATION FOR DEVOPS

- Lesson 1: Multicloud Environment CI/CD
- Lesson 2: Using CI/CD in a Multicloud Environment
- Lesson 3: CloudOps CI/CD with Spinnaker
- Lesson 4: CI/CD using Docker and Jenkins
- Lesson 5: Comparing CI/CD Tools
- Lesson 6: GKE Cluster and Jenkins X
- Lesson 7: Using Jenkins X to implement CI/CD

MODULE 10: DEVOPS AND CLOUD

- Lesson 1: CloudOps vs DevOps
- Lesson 2: DevOps to CloudOps Transformation
- Lesson 3: Platform for Cloud Management
- Lesson 4: Multicloud Design Strategy Architectures
- Lesson 5: Hybrid vs Multicloud and Pattern-based Migration
- Lesson 6: Management Tool for Multicloud
- Lesson 7: Multicloud Strategy Optimization
- Lesson 8: Multicloud CloudOps Automation
- Lesson 9: Multicloud CloudOps Design Scenarios
- Lesson 10: Multicloud DevOps Pipeline
- Lesson 11: Designing a Multicloud CloudOps Framework

MODULE 11: SELECTING THE RIGHT DEVOPS TOOLS

- Lesson 1: Strategy and Practices in DevOps
- Lesson 2: Choosing the Right DevOps Tool
- Lesson 3: DevOps Tool Selection Rules
- Lesson 4: Consequences of Choosing the Wrong Tool
- Lesson 5: Tool Selection for Source Control
- Lesson 6: Choosing CI Process and Tools

MODULE 12: TAKING DEVOPS TO THE NEXT LEVEL WITH DOCKER AND KUBERNETES

- Lesson 1: Containerization Benefits
- Lesson 2: Docker Review
- Lesson 3: Docker Networking & Orchestration Technologies
- Lesson 4: Container Management with Docker Commands
- Lesson 5: Networking in Docker
- Lesson 6: Dockerfile Essentials
- Lesson 7: Dockerfiles in Action
- Lesson 8: Docker Repository Management
- Lesson 9: Setting Up Local Docker Registry
- Lesson 10: Setting up Docker for Development
- Lesson 11: Using Docker to Set Up Development Environment
- Lesson 12: Creating a Docker Machine

PROGRAM AGENDA



MODULE 13: INFRASTRUCTURE AS CODE AND DEVOPS

- Lesson 1: Manual Configuration Defects and Using IaC
- Lesson 2: Infrastructure as a Code Stages
- Lesson 3: IaC History and Evolution into CloudOps
- Lesson 4: Policy as Code
- Lesson 5: IaC Benefits and Best Practices
- Lesson 6: Principles of CloudOps for Infrastructure as Code
- Lesson 7: Infrastructure as Code Tools
- Lesson 8: Continuous Configuration Automation Concepts and Tools
- Lesson 9: Features of Chef
- Lesson 10: Installing and Configuring Chef
- Lesson 11: IaaS and IaC
- Lesson 12: Using CloudFormation to implement IaC

EXAMINATION

YOUR CHARTER DESIGNATION



Chartered Institute of Professional Certification's programs are unique as they provide you with professional charter designation and mark that can be used across your lifetime once you have completed our programs.

After completing the program and passing the exam, you will be awarded the **Certified DevOps Professional (CDevOps™)** designation charter that can be used in your resume, CV and other professional credentials. This designation is a global trademark and industry-recognized with lifelong validity. Globally demanded and recognized, this designation will help you distinguish your skillsets that you have attained in undertaking the full spectrum of DevOps implementation and integration.

Globally demanded and recognized, these trademarked credentials can be added to your professional credentials across your CV, LinkedIn profile and other professional standings to demonstrate your expertise in the area.

ABOUT US

49,525

Business Leaders Have
Attained Their Chartered
Certifications Since 2009

390

Certified and Fully
Accredited Programs

87%

Chartered Leaders Have
Reported Career Promotions
and Enhancements

Chartered Institute of Professional Certifications

All of Chartered Institute of Professional Certifications program are fully accredited programs. The professional charter and designations are trademarked credentials that can only be used by professionals who have completed and passed our accredited program. It is also independently accredited by CPD as adhering to the highest standards of continuing professional principles.

CHARTERED IP
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

OUR FACULTY DIRECTORS

We Collaborate With
Instructors From
Renowned Institutions



HARVARD
UNIVERSITY



Wharton
UNIVERSITY of PENNSYLVANIA



Stanford University



UNIVERSITY OF MICHIGAN



**THE LONDON SCHOOL
OF ECONOMICS AND
POLITICAL SCIENCE**



**Columbia
Business
School**

**London
Business
School**



CONTACT US TODAY

We Thank You for Your Ongoing Support
of Our Programs

Singapore and Asia Pacific Enquiries

Email: advisor@charteredcertifications.com
Phone: +65 6716 9980
Address: Chartered Institute of Professional Certifications
1 Gateway Drive
#20-04 Westgate Tower
Singapore 608531

Australia and New Zealand Enquiries

Email: advisor@charteredcertifications.com
Phone: +61 3 9909 7310
Address: Chartered Institute of Professional Certifications
530 Little Collins Street, Level 1
Melbourne VIC 3000, Australia

UK, Europe and Middle East Enquiries

Email: advisor@charteredcertifications.com
Phone: +44 (020) 335 57898
Address: Chartered Institute of Professional Certifications
86-90 Paul Street
London, EC2A 4NE

USA Enquiries

Email: advisor@charteredcertifications.com
Phone: +1 888 745 8875
Address: Chartered Institute of Professional Certifications
99 Wall Street #3936
New York, NY 10005