

Certified DevOps Engineer (CDE)TM

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ABOUT CERTIFICATION

Certified DevOps Engineer Certification governed by GSDC is focused understanding the DevOps framework from practical tools implementation perspective. DevOps Engineer Certification qualifies various aspects of the principles of continuous development and deployment, software development operations, continuous integration, automation of configuration management and learn the various tools like Git, Docker, Jenkins, Nagios, Puppet, Ansible and Kubernetes.

The focus is to understand DevOps right from the cultural change and leading to understanding of various role & responsibilities, cross functional team structure and importance of automation for achieving benefits from successful DevOps implementation. The certification provides the participants the ability to learn and demonstrate competency through:

- Best practices about Continuous Development, Continuous Integration, Continuous Testing, Configuration Management, Continuous Deployment and finally Continuous Monitoring of the software throughout its development life cycle.
- DevOps principles, Source Code Management, Building CI / CD pipelines, Hands-on experience in Git, GitHub, Docker, Kubernetes, Puppet, Chef, Ansible, Nagios etc.
- Strong understanding of DevOps framework and the benefits of implementing DevOps
- Necessary elements to successfully implement DevOps
- Advocating the DevOps implementation for delivering high business value with the use of automation and cross functional team
- Strong understanding of interfacing of existing established frameworks with DevOps

OBJECTIVES

The high level learning objectives of Certified DevOps Engineer Certification course are as below:

- To understand the DevOps Concepts and DevOps Tools.
- Continuous Integration & Continuous Delivery
- Popular tools to achieve 360 degree automation
- Implementation Strategies
- Understanding the concept of DevOps and the need for DevOps
- Understanding cloud computing and virtualization
- Learning and Manager Version control with GIT
- Creating and configuring lightweight, reproducible, and portable development environments with Vagrant
- Performing Configuration management using Puppet
- Implementing continuous integration(CI) with Jenkins
- Implementing infrastructure monitoring with Nagios
- Understanding containers using Docker
- Performing Configuration management using Chef
- Getting hands-on practice on all the major components covered in this course

Our Accreditation:



The Global Skill Development Council (GSDC) is the leading third-party, Vendor-neutral, international credentialing and certification organization. The Global Skill Development Council (GSDC) is proud to be ANSI Accredited Member. The American National Standards Institute (ANSI) is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system.

COURSE SYLLABUS

Introduction to DevOps

- ✓ History of DevOps
- ✓ What is DevOps ? DevOps Ecosystem
- ✓ DevOps Objectives • DevOps Market Trends
- ✓ Infrastructure As A Code
- ✓ IaaS Overview • Paas Overview
- ✓ DevOps on the Cloud
- ✓ Prerequisites for DevOps
- ✓ Introduction to Linux
- ✓ Basics of UNIX and Linux Operating Systems
- ✓ Linux System administration introduction
- ✓ Tools (Jenkins, Chef, Docker, Vagrant and so on.)
- ✓ Continuous Testing and Integration
- ✓ Continuous Release and Deployment
- ✓ Continuous Application Monitoring

DevOps and Automation

- ✓ Version Control
- ✓ Continuous Integration • Continuous Testing
- ✓ Configuration Management • Continuous Deployment
- ✓ Containerization • Continuous Monitoring

Version Control with Git

- ✓ What is version control? What is Git ?
- ✓ Why Git for your organization?
- ✓ Install Git • Common commands in Git
- ✓ Working with Remote Repositories

Git, Jenkins Integration

- ✓ Branching and Merging in Git • Git workflows
- ✓ Git cheat sheet • What is CI • Why CI is Required
- ✓ Introduction to Jenkins (With Architecture)

Continuous Integration using Jenkins

- ✓ Jenkins Management • Build Setup

Test Automation (with Maven)

- ✓ Securing Jenkins • Notification System
- ✓ Adding a slave node to Jenkins
- ✓ Building Delivery Pipeline

Continuous Testing with Selenium

- ✓ Introduction to Selenium • Why Selenium?
- ✓ Selenium – Webdriver • What and why is X-Path?
- ✓ Creating Test Cases in Selenium WebDriver (Waits)
- ✓ Handling different controls on Webpage
- ✓ Framework in Selenium
- ✓ Selenium Integration with Jenkins

Configuration Management using Puppet/ Ansible

- ✓ Introduction to Puppet • Puppet Installation
- ✓ Puppet Configuration Puppet Master and Agent Setup
- ✓ Puppet Module • Node Classification
- ✓ Puppet Environment • Puppet Classes
- ✓ Automation and Reporting

Containerization with Docker/Kubernetes

- ✓ Shipping Transportation Challenges
- ✓ Introducing Docker
- ✓ Understanding images and containers
- ✓ Running Hello World in Docker
- ✓ Introduction to Container
- ✓ Container Life Cycle • Sharing and Copying
- ✓ Base Image • Docker File • Working with containers
- ✓ Publishing Image on Docker Hub

Continuous Monitoring with Nagios

- ✓ Introduction to Continuous Monitoring
- ✓ Introduction to Nagios • Installing Nagios
- ✓ Nagios Plugins(NRPE) and Objects
- ✓ Nagios Commands and Notification



GSDC Technical Advisory Board :

The GSDC is the leading certification association which brings together innovative organizations and founding thought-leaders as Technical Advisors from over 40 countries to design curriculum on Blockchain, Devops, Six Sigma & Agile Certifications.

Further Information:

Target Audience

The target audience for Certified DevOps Engineer Certification is professionals across all IT practices. Anyone who is a part any kind of IT project or wish to understand the DevOps methodology will benefit from this course.

- Software Development Professionals
- IT Service Management Professionals • System Engineers
- Project & Program Managers • Business Analysts
- Testing Professionals • Data Center Professionals
- Release Managers • Change Managers • System Architects

PRE-REQUISITES

Knowledge of software development, preferably in Java and the UNIX/Linux .

EXAMINATION

- 1.Participants are recommended to undergo 16 hours of training by qualified DevOps trainer
- 2.Examination consists of 50 multiple choice questions. All questions must be attempted
- 3.Passing score is 70% i.e. 35 out of 50 questions must be answered correctly
- 4.It is a closed book examination

Certification Available:

- **Ethereum Developer**
- **Blockchain Architect**
- **Hyperledger Developer**

You may also be interested in:

- **Lean Six Sigma**
- **DevOps Practitioner**

Find out more online at www.gsdccouncil.org