

# Certified DevOps Engineer (CDE)

## Global Certification Program

- ✓ Globally lifetime Valid Certification
- ✓ Lifetime Valid Certification
- ✓ AI based Roleplay & Simulations
- ✓ Two Exam Attempts



# An Overview

## what you can expect from this program

Elevate your DevOps expertise to new heights with GSDC's Certified DevOps Engineer Certification!

This comprehensive credential is your passport to mastering the practical implementation of DevOps frameworks and tools. Dive deep into continuous development, integration, testing, and deployment practices. Gain hands-on experience with industry-leading tools like Git, Docker, Jenkins, and Kubernetes. As a Certified DevOps Engineer, you'll be the architect of cultural shifts, cross-functional collaboration, and automation excellence. Unleash the power of DevOps to deliver high business value, optimize software lifecycles, and drive organizational success.

Transform your career and become a DevOps champion with this invaluable certification!

	<b>Type</b>	Online self-paced learning, Mocks
	<b>Language</b>	English (including subtitles)
	<b>Access</b>	12 months
	<b>AI based Role play</b>	Prepare yourself for career with AI based roleplay
	Digital certificate upon completion ( 2 Attempts)	
	Card Payment, Bank Transfer	
	Reading materials & Reference Templates	
	100% money back guarantee*	

# GSDC Introduction

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## Welcome to the Global Skill Development Council (GSDC)!

As an independent, vendor-agnostic certification organization, we empower professionals worldwide.

Leading MNC organizations and global universities recognize our certifications. With a diverse portfolio of over 150+ programs, including L&D, HR, SRE, DevOps, Agile, Six Sigma, and Cyber Security, we've certified over 250,000 professionals.

Partnered with 100+ global training organizations, GSDC is your gateway to unlocking endless opportunities.

**Join us today and let your skills soar to new heights!**



# Introduction

## Certified DevOps Engineer(CDE)



The GSDC governs the Certified DevOps Engineer Certification, which emphasizes the practical implementation of the DevOps framework through various tools.

A DevOps Engineer Certification focuses on continuous development and deployment, software development operations, continuous integration, configuration management automation, and learning multiple tools, including Git, Docker, Jenkins, Nagios, Puppet, Ansible, and Kubernetes. Therefore, the cost of obtaining this DevOps Certification is entirely justified.

Understanding DevOps starts with a culture shift and progresses to include knowledge of duties and various roles, team structures cross-functional, and the Importance of automation for effective DevOps deployment.

**Participants in the DevOps Engineer certification program get the opportunity to learn and show their proficiency in the following:**

- The recommended approaches for Continuous Development, Continuous Integration, Continuous Testing, Configuration Management, Continuous Deployment, and Continuous Monitoring of software are essential throughout its entire development life cycle.
- Building Continuous Integration and Continuous Delivery pipelines, Hands-on experience with Git, GitHub, Docker, Kubernetes, Puppet, Chef, Ansible, Nagios, etc.
- Solid understanding of the DevOps framework and the value of implementing DevOps.
- Necessary elements to successfully implement DevOps.
- Advocating the DevOps implementation for delivering high business value using automation and cross-functional team.
- A solid comprehension of integrating established frameworks with DevOps.

# Learning Objective

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- ❑ Streamline continuous integration and continuous deployment practices.
- ❑ Optimize system performance and scalability through DevOps.
- ❑ Implement effective monitoring and alerting mechanisms.
- ❑ Ensure secure and compliant software delivery practices.
- ❑ Create a culture of continuous learning.
- ❑ Utilize cloud technologies for efficient infrastructure management.
- ❑ Using Vagrant to build and configure portable development environments.
- ❑ Utilize Puppet for configuration management tasks.
- ❑ Implement Jenkins for Continuous Integration (CI) processes.
- ❑ Implement Nagios for infrastructure monitoring purposes.
- ❑ Implement effective DevOps tools and technologies.

## OBJECTIVES OF DEVOPS ENGINEER CERTIFICATION

# Curriculum

## Module 1: Fundamentals of DevOps

- Fundamentals of DevOps
- Improve SDLC with DevOps, CI/CD, and Agile
- Hands-on Assignment: Set up a basic DevOps pipeline using any CI/CD tool.

## Module 2: Virtual Machines and AWS

- Virtual Machines
- AWS & How to Create Virtual Machines
- How to Connect to EC2 Instance from Windows Laptop MobaXterm
- Hands-on Assignment: Create and connect to an EC2 instance using MobaXterm.

## Module 3: AWS CLI and Shell Scripting

- What is the cloud benefits (Create the account in AWS - free for 1 years since we will use the AWS)
- AWS CLI Full Guide: How to connect to EC2 Instance from UI & Terminal, AWS CFT walk through
- Linux & Shell Scripting
- Shell Scripting for DevOps
- Shell Scripting for DevOps Part 2
- Shell Scripting & Linux
- Live AWS Project using Shell Scripting for DevOps
- Shell Scripting
- Hands-on Assignment: Write and execute shell scripts to automate AWS tasks.

## Module 4: Git, GitHub, and GitLab

- Git and GitHub
- Git Branching Strategy
- Bitbucket
- Setup Jenkins job
- Jenkins pipeline view
- Install Artifactory
- Introduction to GitLab
- GitLab - Getting Started with Git Commands
- GitLab - How to Fork a Project
- GitLab - Creating SSH Key
- GitLab - How to Install GitLab Runner on Mac OS

- GitLab - How to Install GitLab Runner on Windows OS
- GitLab - CI/CD
- Hands-on Assignment: Create and manage a repository on GitLab, including CI/CD setup

## Module 5: Infrastructure as Code and Configuration Management

- Deploy and Expose Your First App to AWS
- Top 15 AWS Services
- Configuration Management with Ansible
- Ansible
- Infrastructure as Code
- Everything About Terraform
- Project Management Tools for DevOps
- JIRA Workflow
- Hands-on Assignment: Implement infrastructure as code using Terraform.

## Module 6: CI/CD and Project Management

- What is CI/CD
- Jenkins
- GitHub Actions
- GitHub Actions Self-Hosted Runners
- CI/CD Q & A
- Working with YAML
- Get Started with Harness CD
- Deploy with the Harness CLI
- Harness GitOps Onboarding with Terraform
- Harness Deployment Strategies Overview
- Kubernetes Canary Deployments - Harness Deep Dive
- CD Service 101
- Out of the Box Kubernetes Manifests
- Serverless Demo
- Kustomize Demo
- GitOps with Terraform - Automating Your Source of Truth
- Building an Efficient End to End Software Delivery Pipeline

- Harness Delegates and GitOps Agents - Scaling Your Workloads
- Harness Continuous Delivery in Action
- Secure Container Image Signing with Cosign and OPA
- ArgoCD with Terraform - Harness Demo
- Hands-on Assignment: Set up a complete CI/CD pipeline using Jenkins or GitHub Actions.

### **Module 7: Containers, Docker & Kubernetes**

- Introduction to Containers
- Docker walkthrough
- Docker Containerization for Django
- Multi-Stage Docker Builds
- Docker Volumes and Bind Mounts
- Docker Networking: Bridge vs Host vs Overlay
- Introduction to Kubernetes
- Kubernetes Architecture
- Hands-on Assignment: Dockerize a simple application and deploy it using Kubernetes.

### **Module 8: Kubernetes Advanced Concepts and Monitoring**

- Kubernetes Clusters
- Kubernetes Pods
- Kubernetes Deployments
- Kubernetes Services
- Kubernetes Services Demo
- Kubernetes Ingress
- Kubernetes Service, Ingress with TLS, and Ingress Controllers
- Introduction to K8s RBAC
- Kubernetes Custom Resources
- Kubernetes Monitoring Using Prometheus & Grafana
- Hands-on Assignment: Set up monitoring for a Kubernetes cluster using Prometheus and Grafana.

### **Module 9: Helm, GitOps with Argo CD & Live Projects**

- Working with Helm
- What is GitOps?
- Architecture of Argo CD
- How to Install and Use Argo CD
- Multi-Cluster Deployment with GitOps
- AWS Live Project: Deploy App Using Httpd
- Ultimate CI/CD Pipeline Jenkins End to End Project
- Jenkins End to End CI/CD Implementation
- Conclusion
- Hands-on Assignment: Implement GitOps using Argo CD for a multi-cluster environment.

# Unleash Unlimited Potential

All GSDC certifications come with a lifetime membership, offering you a world of benefits to fuel your professional growth.



## Expert Created Learning Material

Learn from knowledge shared by Top Industry Experts with 15+ yrs of experience.



## Access to Global Conferences

Be a part of GSDC thriving learning community around the world, sharing knowledge from across the world.



## Speaker invites @ GSDC Webinar Series

Share your knowledge with world at GSDC global webinar series, share your expertise and learn from others.



## Downloadable Resources

Get access to templates and reference documents which will help you to do your day to day tasks easier.



## Certificate Upgrades

Get complimentary certificate upgrades to keep up with the latest updates in processes and frameworks.



## Newsletters, blogs with industry insights

Get newsletters, announcements and articles curated by experts direct to your inbox.



## AI Based Role Play

Learn to implement applicability of knowledge with real life simulation based games.

# What You Get In this Certification Program?

- Engaging digital learning videos
- Exclusive access to Global thought leader sessions & case studies
- Downloadable and implementable resources to support practical application
- Two mock exams with unlimited attempts for comprehensive preparation
- Certification exam voucher with 1-year validity
- Two attempts for certification exam

# What our Candidates Saying?

We greatly appreciate the feedback from our program participants on Trustpilot. With an impressive average rating of 4.7 out of 5, their reviews highlight the positive experiences and value they have gained from our program.



**Global Skill Development Council - GSDC**  
 Reviews 178 • Excellent  
 4.7 ⓘ  
 VERIFIED COMPANY



**chandrakaran j**  
 2 reviews • IN  
 Jul 18, 2023  
 ★★★★★  
**I had a experience with GSDC with their...**  
 I had a experience with GSDC with their SRE course and it was very good. The speakers were very knowledgeable and kept it very interactive. Thanks the GSDC team for this!  
 Date of experience: April 13, 2023



**Tosin Olaniji**  
 1 review • NG  
 Jul 11, 2023  
 ★★★★★  
**The learning portal was so seamless**  
 The learning portal was so seamless, and user friendly. The course are so detailed, easy to understand, great lecturers. Safe to say the best learning platform I've used so far. I would recommend learning from GSDC to anyone. You sure will get a value for your money.  
 Date of experience: July 08, 2023



**Amani**  
 1 review • AE  
 Aug 15, 2023  
 ★★★★★  
**Certified Learning & Development Professional CLDP**  
 I took the certification course "Certified Learning & Development Professional CLDP" approved by the GSDC - Global Skill Development Council. So grateful to the professional team at the GSDC for this enlightening opportunity; namely, Ruguzeno, for her dedication, responsiveness, and constant support throughout this learning journey. And very special thanks to the amazing trainer and coach Deepak Sharma for the great weekly live sessions which I believe are the highlight of this certification programme. His knowledge, expertise, and outstanding skills have made the course very insightful, engaging, and enjoyable!  
 Date of experience: July 21, 2023



**Majid**  
 1 review • IN  
 Sep 25, 2023  
 ★★★★★  
**GSDC has been doing a great job in making learners gain knowledge!**  
 GSDC has been doing a great job in making the learners find right opportunities to gain knowledge for business! These two days were filled with knowledge and insights!  
 Date of experience: September 25, 2023



## Expert-Led Generative AI: Learn, Connect, Grow



### **Interactive Learning Experience:**

Ask questions, discuss case studies, and receive implementation guidelines directly from expert, enhancing your understanding of complex AI topics

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### **Lifelong Learning Journey:**

Enjoy lifetime access to these sessions, ensuring you stay updated with the latest trends and continuously grow your AI expertise

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### **Career-Boosting Network:**

Connect with fellow professionals in the field, creating valuable relationships that can propel your career in the world of Generative AI

## AI-Based Interview Practice Platform



- Engage With Real Time AI Interview Questions.
- Practice Questions Tailored with Your Expertise.
- Validate your Knowledge of subject Matter.

## Capstone Project



- Apply Your Skills in Real World Scenario.
- Learn Methodologies Aligned to Your Expertise.
- Validate Skills and Knowledge Gained through the Certification.
- Showcase Expertise via a Capstone Project.

# Enrollment-Options

## Option-1

### **Certified DevOps Engineer (CDE) With learning**

**Fast-track your career by  
learning a new  
skill and earning a certificate**

- ✓ E-Learning from Industry Experts
- ✓ 1 Certification Program
- ✓ Two Exam Attempts
- ✓ Lifetime Valid Certification
- ✓ Downloadable Resources

**ENROLL NOW**

## Option-2

### **Bundle**

**Create your own bundle with  
3 certification program**

- ✓ 3 Certification Program
- ✓ Two Exam Attempts
- ✓ Lifetime Valid Certification
- ✓ Learning Library Access
- ✓ Downloadable Resources
- ✓ GSDC Membership

**ENROLL NOW**

## **Option-1 Certified DevOps Engineer (CDE) with E-learning**

### **Certified DevOps Engineer (CDE) with Digital Learning**

Fast-track your career by learning a new skill and earning a certificate

- ✓ E-Learning from Industry Experts
- ✓ 1 Certification Program
- ✓ Two Exam Attempts
- ✓ Lifetime Valid Certification
- ✓ Downloadable Resources



**ENROLL NOW**

## Option-2

# Make Your Own Certified DevOps Engineer (CDE) Bundle

**Enrich your skills and advance your career with our exclusive bundle.  
Get certified in the following:**

- Certified DevOps Foundation
- Certified SRE Practitioner
- Certified DevSecOps Engineer
- Certified DevOps Practitioner
- SRE Foundation Certification
- Certified DevSecops Practitioner

**Expand your expertise, design impactful learning experiences, and master your skills.**

**BUY ANY**

**3**

**CERTIFICATIONS**

**[Claim SRE Bundle Here](#)**

## *Unlock Workforce Potential Through Skill Validation!*

Enroll now with the code **UPSKILL10** To avail 10% discount.

**Register Now**

## **100% Money Back Guarantee!**

At GSDC, quality is our top priority. Our certification programs are designed to foster professional growth and ensure learning satisfaction. If you do not pass the certification exam after two attempts, we offer a 100% money-back guarantee.

- No Questions Asked\*
- 100% Amount Refund\*
- No Processing Fees\*



# Thank You



**Follow Us**

