



DevOps Cookbook

Complete A2Z DevOps Mastery Program



```
This example of
Single::ToString< >,
Single::ToString< String* >,
Single::ToString< IFormatProvider* >, and
Single::ToString< String*, IFormatProvider* >
generates the following output when run in the [en-US] culture.
A Single number is formatted with various combinations of format
strings and IFormatProvider.

IFormatProvider is not used; the default culture is [en-US]:
No format string: 11876.54
'N5' format string: 11,876.54000
'E' format string: 1.187654E+004
'ES' format string: 1.18765E+004

A CultureInfo object for [nl-NL] is used for the IFormatProvider:
No format string: 11876.54
'N5' format string: 11.876.54000
'E' format string: 1.187654E+004

A NumberFormatInfo object with digit group size = 2 and
digit separator = ',' is used for the IFormatProvider:
'N' format string: 1_18_76_54
'E' format string: 1.187654E+004
Press any key to continue . . . -
```

About The Course

This comprehensive program is designed to equip participants with proficiency in all facets of software development (Dev) and technology operations (Ops) through the application of continuous deployment and continuous monitoring principles. The curriculum covers the implementation of key tools such as Ansible, Terraform, Kubernetes, Docker, Git, Jenkins, and more.





About Software Development Industry

The global software engineering market is expected to grow to approximately USD \$37.4 billion by 2022, at a CAGR of nearly 12 percent. Corporate initiatives focused on digital transformation will help drive demand for skilled software developers, which is reflected in current hiring trends and future projections. According to NASSCOM and USA Today, one million software development jobs will be added to the workforce by 2020 in India and 1.4 million jobs in the United States.

Many companies prefer to hire multi-skilled technology professionals such as automation test engineers. The average annual salary for an automation test engineer is USD \$94,270 (ZipRecruiter).

Additional facts about the state of the software development industry:

- Junior developers are getting massive starting salaries compared to those of the last 20 years.
- Upskilling is one of the most important priorities for developers today (Stackoverflow 2019)
- The phenomenal rise of consumer applications in both web and mobile is driven by the availability of open-source projects and libraries
- Smaller, quicker releases—which results in better productivity—are becoming crucial for software product success. Automation engineers are well-positioned to empower this trend.

Key Features



Comprehensive Blended Learning program



120 hours of self-paced learning



Choose from 4 industry-aligned capstone projects



270 hours of in-depth training



20+ in-demand tools and skills



Job-assist program included



150 hours of instructor-led training



10 lesson-end & 4 phase-end projects



Along with this, 24x7 Support Available.

Top Skills and Tools Covered

- Docker
- AWS
- Apache
- Camel
- Jenkins
- Nagios
- GitHub
- Puppet
- Ansible
- Genios
- Eclipse

What You Will Learn In This Program?

Specifically, in this program you will learn how to:

- Gain a deep understanding of DevOps engineering fundamentals, terminologies, concepts, benefits, and deployment options.
- Effectively deliver change requests by rapidly and efficiently adding new features.
- Attain comprehensive knowledge of version control systems, particularly with Git and GitHub training.
- Develop expertise in security and performance testing to safeguard releases from vulnerabilities.
- Acquire a detailed overview of continuous integration and the container ecosystem, utilizing tools such as Jenkins and Docker.
- Successfully transition to a DevOps engineering role from any prior state



STEP

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DevOps Certification Training

Course Learning Objectives:

By the End of this phase you will be able to:

- Integrate and deploy tools like Jenkins, TeamCity, and Maven.
- Configure management tools such as Puppet, Chef, Ansible, and Saltstack.
- Understand DevOps tools in cloud environments.
- Build and deploy containerization using Docker.
- Perform tuning and monitoring using Nagios.

Course Path:

- Course Introduction
- Introduction to DevOps
- Version Control Systems
- Continuous Integration, Continuous Deployment, and Build Tools
- Software and Automation Testing Frameworks
- Configuration Management Tools
- Containerization with Docker
- Continuous Monitoring Lesson
- Need of Cloud in DevOps Lesson

STEP

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Docker Certified Associate

Course Highlights:

By the End of this phase you will be able to:

- Understand Docker basics and features.
- Manage Docker container and image creation.
- Utilize tools supporting Docker for application deployment, continuous integration, service discovery, and orchestration.
- Understand Docker networking models and use cases.
- Install and uninstall Docker Enterprise.
- In-depth discussion on Docker security.

Course Path:

- Introduction
- Understanding Docker
- Docker CE on Linux Platform
- Docker Networking
- Docker Images
- Docker Storage and Volumes
- Docker Compose
- Orchestration Docker Swarm
- Universal Control Plane
- Docker Trusted Registry
- Security

STEP

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Container Orchestration using Kubernetes

Course Highlights:

By the End of this phase you will be able to:

- Grasp Kubernetes core concepts and terminologies.
- Install and deploy a Kubernetes cluster.
- Understand pods and scheduling techniques.
- Manage logging, monitoring, services, and volumes in Kubernetes.
- Troubleshoot application and network failures.
- Conduct auditing and logging of cluster events.

Course Path:

- Introduction
- Kubernetes Overview
- Setup Kubernetes
- Kubernetes Concepts
- YAML Introduction
- Kubernetes Concepts – PODs, ReplicaSets, Deployments
- Networking in Kubernetes
- Microservices Architecture
- Conclusion

STEP

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Program Projects

Branching Development Model

Build a branching model to facilitate a streamlined Git workflow for faster integration of work.

Architecting Jenkins Pipeline for Scale

Utilize Jenkins to set up a distributed pipeline for compiling and testing a Maven project on different slave nodes.

Dockerizing Jenkins Pipeline

Demonstrate continuous integration and delivery by Dockerizing Jenkins Pipeline.

Deploy Angular Application in Docker Container

Deploy the Angular application in Docker, utilizing Docker Compose for both development and production

Containerizing an Application and Scanning Its Docker Image with DTR

Create a Dockerfile for a spring boot application, build an image, and push it to a private registry using Docker Trusted Registry (DTR).





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About Clevera

Clevera: Where Innovation Meets Expertise. Your one-stop platform for empowering your business through technology and expertise. We are a passionate team of trailblazers, dedicated to empowering businesses and individuals to thrive in the dynamic digital landscape. In 2024, Clevera emerged with a bold vision: to bridge the ever-widening gap between the skills demanded by corporations and the training provided by traditional institutions. Recognizing the rapid evolution of the digital landscape and the constant need for individuals to upskill, we set out to create a training paradigm that seamlessly connects these two worlds.

Ready to **Code The World?**



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