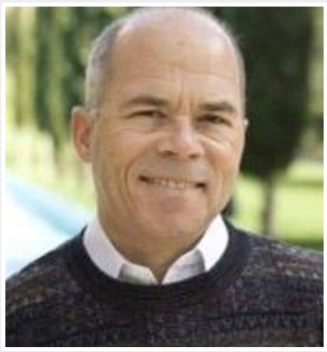
simplilearn

DevOps Practitioner

Master the breadth and depth of devops and unleash the power of automation to your SDLC process with our DevOps training course. Become an expert in Configuration Management, Continuous Integration-Deployment-Delivery-Monitoring using modern DevOps tools such as Git,Docker, Jenkins, Puppet and Nagios with a one of a kind hands on, practical and interactive approach that allows you to apply your skills in real world scenarios immediately.



Bernard Golden

Agile and Cloud Expert, CEO of Navica

Named by WIRED.com as one of the 10 most influential people in cloud computing. Bernard has authored four books on virtualization and cloud computing, the most recent of which is Amazon Web Services for Dummies.

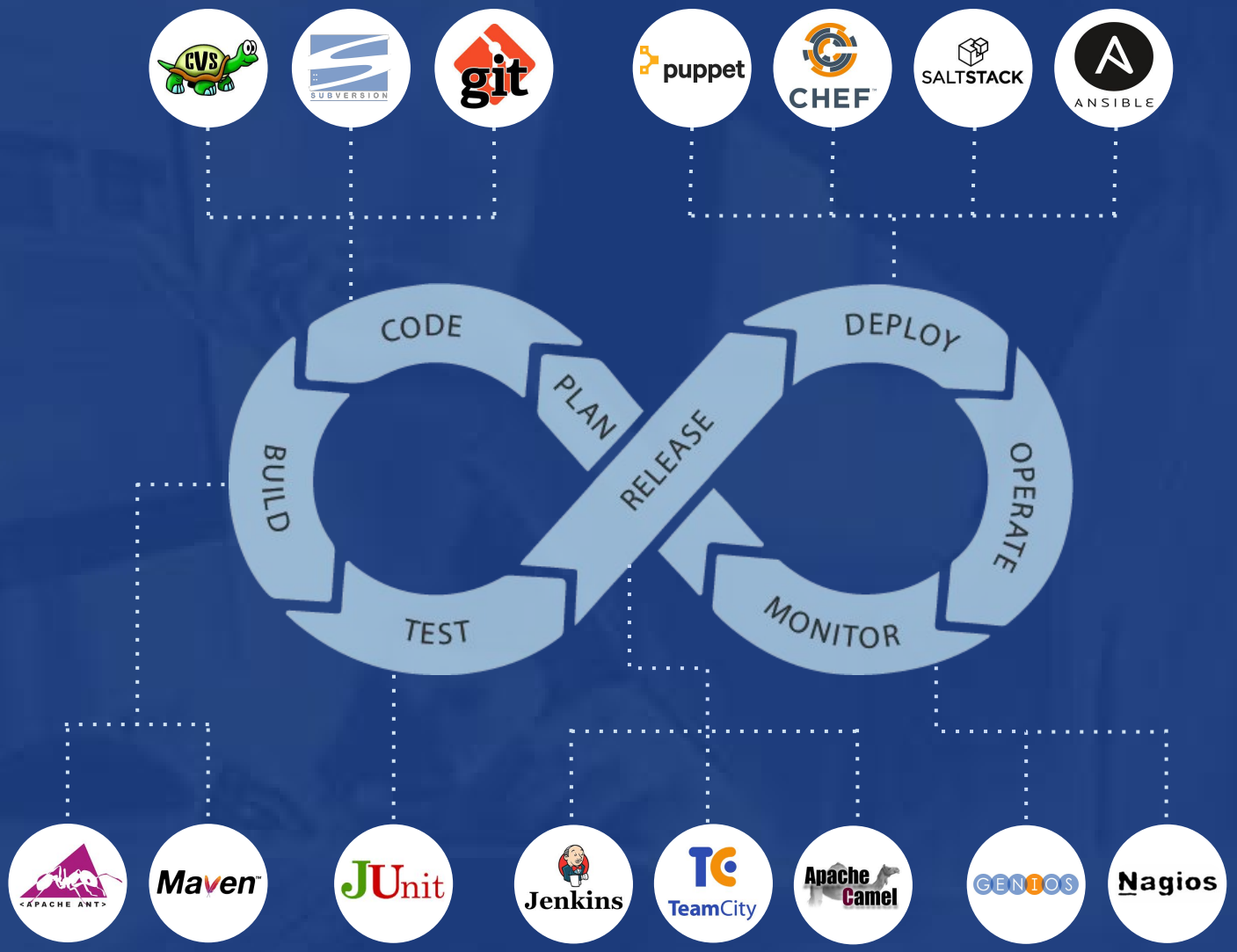
Who can enroll for the program

DevOps career opportunities are exploding worldwide. Many organizations are investing heavily in devops capabilities to maintain a cutting edge in the market.The DevOps training course will be of benefit the following professional roles:

- Software Developers
- Architects
- IT managers
- Technical Project Managers
- Operations Support
- Deployment engineers
- Dev managers

Prerequisite knowledge of software development, preferably in Java, and the UNIX/Linux command line tools is essential for this course.

Why should you enroll for this program



Program features

12+
hours of online learning content

32+
hours of trainer led virtual classrooms

6+
DevOps open source tools covered

3
hands-on projects included

Chapter level details:

Lesson 1: What is DevOps? What are its components?

Learning objectives: In this module, you will learn about DevOps, its evolution, the interrelation between agile and DevOps, technical and security challenges in DevOps, the difference between requirements and architecture, and ways to write user acceptance tests.

Topics:

- ❏ Agile and DevOps: How do they interrelate?
- ❏ An understanding of DevOps
- ❏ Technical challenges in DevOps
- ❏ An understanding of security issues
- ❏ The difference between requirements and architecture
- ❏ How to write user acceptance tests

Demos covered: Setting up of the cloud environment. Although the demo is done with the Google cloud, DevOps is agnostic of cloud type (It functions the same way with AWS, Azure, and GCP)

Platforms: GCP/AWS/Azure

Lesson 2: Managing Source Code and Automating Builds Using GIT

Learning objectives: In this module, you will learn how to set up and use source control systems, automate the process of assembling software components, and build tools.

Topics:

- ❏ How to manage change by setting up and using a source control system
- ❏ How to automate the process of assembling software components with build tools
- ❏ How to automate the building of the whole system with continuous integration tools
- ❏ The major differences between popular tools: CVS, SVN, and Git
- ❏ How to use Eclipse editor and the advantages of the Eclipse editor

Demos covered: Setting up of Java sample program, installing Maven, and running Maven goals from Eclipse,

Tools: SCCS and CVS, Subversion, Git, Maven, Make, JaCoCo, Ant, jUnit for Unit test, SonarQube, Sqale, Structure 101

Lesson 3: Automated Testing and Test-driven Development

Learning objectives: In this module, you will learn the principles of test-driven development, benefits of integrated development environments, ways to perform TDD, and utilization of code quality analysis tools.

Topics:

- ❏ Principles of test-driven development
- ❏ Benefits of Integrated Development Environments
- ❏ How to perform test-driven development
- ❏ Code quality
- ❏ How to utilize code quality analysis tools

Demos covered: Complete setup of the automated test environment and running it.

Tools Covered: Eclipse, IntelliJ, Visual Studio, Xcode, xUnit, SQALE, SonarQube, JaCoCo

Lesson 4: Containerization Using Docker

Learning objectives: In this module, you will get an introduction to containers and their uses, Docker, image distribution, docker instances, networking, volumes, and files

Topics:

- ❏ What are containers? Why are they used?
- ❏ Introduction to Docker
- ❏ Image distribution and Docker containers
- ❏ Creating and managing remote Docker instances
- ❏ Understanding Docker Networking,Volumes, and Files

Demos covered: Working on Docker containers, images, and registry.

Tools Covered: Docker

Lesson 5: Continuous Integration Using Jenkins and TeamCity

Learning objectives: In this module,you will learn to set up a continuous integration pipeline with Jenkins and TeamCity.

Topics:

- ❏ Continuous integration with TeamCity
- ❏ Integration of Eclipse with TeamCity
- ❏ Continuous integration with Jenkins

Demos covered: Complete setup of the CI pipeline and flow

Tools Covered: Jenkins, TeamCity, Eclipse, Logback/ SLF4J for Logging

Lesson 6: Configuration Management Using Puppet, Chef, Ansible, and Salt

Learning objectives: In this module, you will learn configuration management with Puppet, Chef, Ansible, and Salt.

Topics:

- ❏ Introduction to Puppet and its architecture
- ❏ Puppet terminologies and language constructs
- ❏ Puppet modules and classification
- ❏ Puppet environment, classes, and template
- ❏ Introduction to Chef, Ansible, Salt

Demos covered: Puppet setup and usage. Overview of Chef and its usage.

Tools covered: Puppet, Chef, Ansible, Salt

Lesson 7: Automated and Continuous Monitoring Using Nagios

Learning objectives: In this module, you will learn about how monitoring is done in DevOps projects using Nagios.

Topics:

- ❏ How to monitor production systems
- ❏ How to test for performance
- ❏ How to optimize code
- ❏ How to schedule production tasks
- ❏ How to perform a DevOps project

Demos covered: Setting up the monitoring sub system and using Nagios to trigger alerts/events

Tools covered: AutoSys/Cron for Scheduling, Geneos/ Nagios for Monitoring

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Founded in 2009, Simplilearn is one of the world's leading providers of online training for Digital Marketing, Cloud Computing, Project Management, Data Science, IT, Software Development, and many other emerging technologies. Based in San Francisco, California and Bangalore, India, Simplilearn has helped more than 500,000 students, professionals and companies across 200 countries get trained, upskilled, and acquire certifications.

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