

## LEARN, THINK, INNOVATE





1

# Overview

Let eMexo Technologies **Best DevOps Master Program Training in Electronic City Bangalore** take you from the fundamentals to expert-level concepts in DevOps. Our DevOps Master Program Certification Training Course in Electronic City Bangalore has been designed to meet the latest market trends and to understand the importance of DevOps. This course will enable you to learn how DevOps can help focus on value and streamline delivery, while also learning about common infrastructure servers, availability, and scalability, another feature of this training program. Here are the major topics we cover under this DevOps Master Program course Syllabus: Linux Administration, AWS, Python, DevOps, GIT – A version control tool, Jenkins – Continuous integration, Docker – A containerization technology, Ansible – A configuration Management, and DevOps on Cloud. Each topic will be covered in a practical way with examples for our DevOps Master Program Course in Electronic City Bangalore.

All the topics will be covered with Practical and hands-on training. Our trainers have industry experience with live project experience in cutting-edge technologies they teach. We hire only the Best DevOps Master Program industry specialists as trainers for our **DevOps Master Program Certification Training in Electronic City Bangalore**.

If you are looking for a DevOps Master Program Certification Course in Electronic City Bangalore, eMexo Technologies is the Best DevOps Master Program Training Institute in Electronic City Bangalore. Come over to our training institute for a free demo class. Let our trainer give you a demo on DevOps Master Program and only then do you make the decision to enroll in the training program.

# **Training Features**

## **Real-life Case Studies**

Do a real-life case study to understand the usage in real-world scenarios.

## Assignments

Each class will be followed by a practical assignment switch that can be completed before the next class.

## **Preparation for interview**

Our trainers are professionals working in multinational corporations. They are experts in their field and know exactly what the interviewer will look for in the candidate. Experienced trainers not only share interview questions but also conduct mock interviews to help prepare for the actual interview.

## **Key Features**

eMexo Technologies offers the **Best DevOps Master Program Training Course in Electronic City Bangalore** with the TOP industry expert trainers.

Here are the key features.

- ★ Free Demo Class Available
- ★ Practical Approach
- ★ Expert & Certified Trainers
- ★ 100% Job Oriented Training
- $\star$  Real World use cases and Scenarios
- **\star** Completed 500+ Batches
- ★ Certification Guidance

### **Unit 1: Linux Administration**

Introduction to Linux

Open Source Philosophy

Distributions

Embedded Systems

**Command Line Basics** 

Basic Shell

Command Line Syntax – ls

Command Line Syntax - \$PATH, Case Sensitivity

Command Line Syntax - Basic Commands

Command Line Syntax – uname

Command Line Syntax - Command History, Command Completion

Command Line Syntax - cd and pwd

Shell Configuration Files

Variables – Environment / System Variables

Variables – User Defined

Globbing Quoting Formatting Commands Working with Options Using the Command Line to Get Help Man Info locate, find, whereis, and using /usr/share/doc/ Exercise: Man Page Walkthrough Exercise: Basic Command Line Using Directories and Listing Files The Linux File System Files and Directories Hidden Files and Directories Home Absolute and Relative Paths Exercise: Maneuvering the Linux File System Creating, Moving and Deleting Files **Case Sensitivity** Simple Globbing and Quoting The Power of the Command Line Archiving Files on the Command Line Archives, Compression

Searching and Extracting Data from Files Commands (Revisited) **Command Line Pipes** I/O Redirection **Regular Expressions** Exercise: Practicing with Pipes and Grep Turning Commands into a Script Basic Text Editing Basic Shell Scripting Basic Shell Scripting, Continued Exercise: Using the vi Text Editor The Linux Operating System Choosing an Operating System Windows, Mac, and Linux Differences Distribution Life Cycle Management Understanding Computer Hardware Hardware Where Data is Stored Kernel Processes syslog, klog, dmesg /lib, /usr/lib, /etc, /var/log Your Computer on the Network

Internet, Network, Routers Domain Name Service and the Default Gateway (Network Router) Network Configuration Security and File Permissions Basic Security and Identifying User Types Root and Standard Users System Users Creating Users and Groups User IDs User Commands Group Commands Exercise: Managing User Accounts Exercise: Creating User Groups Managing File Permissions and Ownership File/Directory Permissions and Owners Special Directories and Files Symbolic Links System files, Special Files, and Sticky Bits Hands-On

## Unit 2: AWS

Amazon EC2

Amazon Elastic Load Balancer

Amazon Route 53

Amazon VPC Amazon Simple Storage Service (Amazon S3) Amazon Elastic Block Store (Amazon EBS) Amazon Content Delivery Network (Amazon CloudFront) Amazon Relational Database Service (Amazon RDS) Amazon DynamoDB Amazon ElastiCache Amazon Simple Notification Service (SNS) Amazon CloudWatch Amazon CloudTrail Amazon Simple Email Service (Amazon SES) AWS Identity and Access Management (IAM) Amazon Command Line Interface API S3-Browser

Hands-On

# **Unit 3: Python**

Introduction to Python

Memory management and Garbage collections

Statements and Syntax

File Operations

Functions

Modules and Packages

Classes

**Exception Handling** 

Advanced Concepts

Django

Hands-On

# Unit 4: DevOps

Introduction to DevOps

DevOps Principles in detail

DevOps Engineer Skills in the market

Knowing DevOps Delivery Pipeline

Market trend of DevOps

DevOps Technical Challenges

Tools we use in DevOps

Hands-On

# **Unit 5: GIT – A version control tool**

Knowing about Version control

Git-ACLI

Essentials of GIT in industry

Installing Git

First-Time Git Setup

Getting a Git Repository

Working with various commands in GIT Recording Changes to the Repository How to check the Status of Your Files How to track New Files Staging our modified files Ignoring Files from GIT Viewing Your Unstaged and Staged Changes How to commit Your Changes Skipping the Staging Area and commit Removing Files from GIT Viewing the Commit History Limiting Log Output Using a GUI to Visualize History Undoing Things Changing Your Last Commit Unstaging a Staged File Unmodifying a Modified File Working with Remotes Showing Your Remotes Adding Remote Repositories Fetching and Pulling from Your Remotes Pushing to Your Remotes Inspecting a Remote

Removing and Renaming Remotes Branching and Merging in Git What a Branch Is Basic in Branching and Merging Branch Management in GIT Branching Workflows and its usage Remote Branches – create and delete Rebasing Git workflows Git cheat sheet

Hands-On

# **Unit 6: Jenkins – Continuous integration**

Essentials of Continuous Integration An example scenario where CI is used Know about Jenkins and its architecture in detail Jenkins tool Management in detail Installing Jenkins Post-installation setup wizard Unlocking Jenkins Customizing Jenkins with plugins Creating the first administrator user Know about User management in Jenkins Authentication

Jenkins own database user creation Options to enable integration with LDAP Authorization Matrix based authorization Project based authorization Overview of Maven Maven project structure Maven plugins Project Object Model (POM) - the fundamental unit of work in Maven project Maven build lifecycle Adding external dependencies to maven pom.xml Maven build and test project Creating jobs and automatic build settings What is Jenkins Pipeline? Why Pipeline? Integration with GIT How to enable project-based authorization for a job Source code management while creating jobs Triggering automated build Maven job setup Know about post-build options for jobs like notifications, trigger another build, publishing reports, etc. Adding a slave node to Jenkins **Building Delivery Pipeline** 

Notification settings in Jenkins

Plugin management in Jenkins

Hands-On

# **Unit 7: Docker – A containerization technology**

Introduction to Docker Real-world Shipping Transportation Challenges Introducing Docker and its technology Understanding of Docker images and containers Working with container How to Share and copy a container Container Life Cycle How to use Base Image and customize Creation of Docker File How to Publish Image on Docker Hub Introduction to Docker Networking Network Types in docker technology Docker Container Networking Docker Compose – An introduction Docker Swarm – An introduction Use Docker Compose to create PHP, WordPress, and MySQL How to Start Containers on a Cluster with Docker Swarm

Creating and Scaling an application in Docker swarm

Hands-On

## **Unit 8:** Ansible – A configuration Management

Introducing Ansible – A configuration management tool Basics / What Will Be Installed Understanding Ansible architecture **Control Machine Requirements** Managed Node Requirements Inventory Hosts and Groups Host Variables Group Variables Learn various ansible Modules How to use ad hoc commands Parallelism and Shell Commands File Transfer Managing Packages Users and Groups Deploying From Source Control Managing Services Introduction to YAML script Introduction to Playbooks Playbook Language Example – YAML

How to Write Playbooks Tasks in Playbooks Understanding about various tasks in playbook Introduction to Handlers and variables Learn about using handlers, variables in the playbook Become (Privilege Escalation) Role Directory Structure Using Roles Role Duplication and Execution **Role Default Variables Role Dependencies Role Search Path** Ansible Galaxy Including and Importing Includes vs. Imports **Importing Playbooks** Including and Importing Task Files Including and Importing Roles Writing a playbook to install and configure web servers and deploy an application How to create Ansible Role and use it Using an ansible role in playbook How to use Ansible Galaxy to download roles.

Example - Install and use Jenkins roles from ansible galaxy

Hands-On

## **Unit 9: DevOps on Cloud**

Essentials of Cloud computing. Cloud and virtualization architecture Cloud deployment architecture Cloud providers – An overview Why do we need DevOps on Cloud? Introducing Amazon web services Various AWS services for DevOps – An overview DevOps using AWS – Demo Hands-On

# FAQs

### 1. How is the training organized? How much percentage is theoretical and how much is practical hands-on?

We at eMexo believe nothing beats hands-on practice when it comes to learning a concept. Our teaching methodology is 100% practical and hands-on oriented. You learn a concept, you practice it then and there with the trainer. We also give you assignments for each topic which you can practice at home and any doubts regarding the topic can be cleared with the trainer the next day.

### 2. What is the course duration? How and when do you plan to complete the course?

We generally cover our courses in 60 hours, however, we know that we can't put a hard- stop to learning with a number. Our trainer will make sure that you have learned everything that is part of the curriculum. This could mean 48 hours or 60 hours, doesn't matter.

#### 3. What is the material provided in the training?

We have industry standard course material which is used by our trainers to train you. At the end of the training, apart from the notes which you have taken during the course, we will also provide you with the training material which was used. This training material includes the training content, interview questions, etc.

#### 4. Do you help in preparing for the interview?

Our trainers are working professionals who work in MNCs. They are the experts in their domain and they know exactly what an interviewer looks into a candidate. Our expert trainers apart from sharing the interview questions will also conduct mock interviews to help you prepare for the real interview.

#### 5. Who are your trainers?

Our trainers are industry experts who work in their respective technologies day in and day out. They work in MNCs and are technology experts within their organizations.

#### 6. What is the total batch size per course?

We maintain a strict batch size of a maximum of 5 students. We also provide exclusive one-to-one training as well. Talk to our training partner to get more details.

#### 7. Do you provide certification for the course?

Yes, at the end of training we provide a certification of completion.

### 8. Will I be joining a new batch or being merged with another batch?

You will be added to a new batch.

#### 9. Is fast-track training available?

Yes, we also provide fast-track training for those who want to complete the course faster. The curriculum and the total hours required to complete the course will remain the same. However, the trainer will be spending more hours with you to complete the course.

#### 10. Do you assist in job placement?

Our trainers are expert professionals in their organizations and they often act as the interviewer to hire new candidates. Our trainers will help you prepare your resume with industry standards. After all, they know exactly what to look for in a resume.

### 11. Timings for training - Regular training/weekend training?

We provide both regular and weekend training. Talk to our training partner to learn more about the timings.

### 12. Will you be working on a live project during training?

Yes, apart from doing the hands-on practice our trainer will also be taking a real-world project and working with you on the implementation.

### 13. What happens if I miss a class?

If you miss a class the content of that class will be taught to you again. With us, you might miss a class but not the content.

### 14. Can I attend a demo before the actual class?

Yes, absolutely! Talk to our training counselor on the phone at +91-9513216462 or email us at **info@emexotechnologies.com** to arrange a free demo. You can also fill in the contact us form below and we will call you to discuss your training requirements.