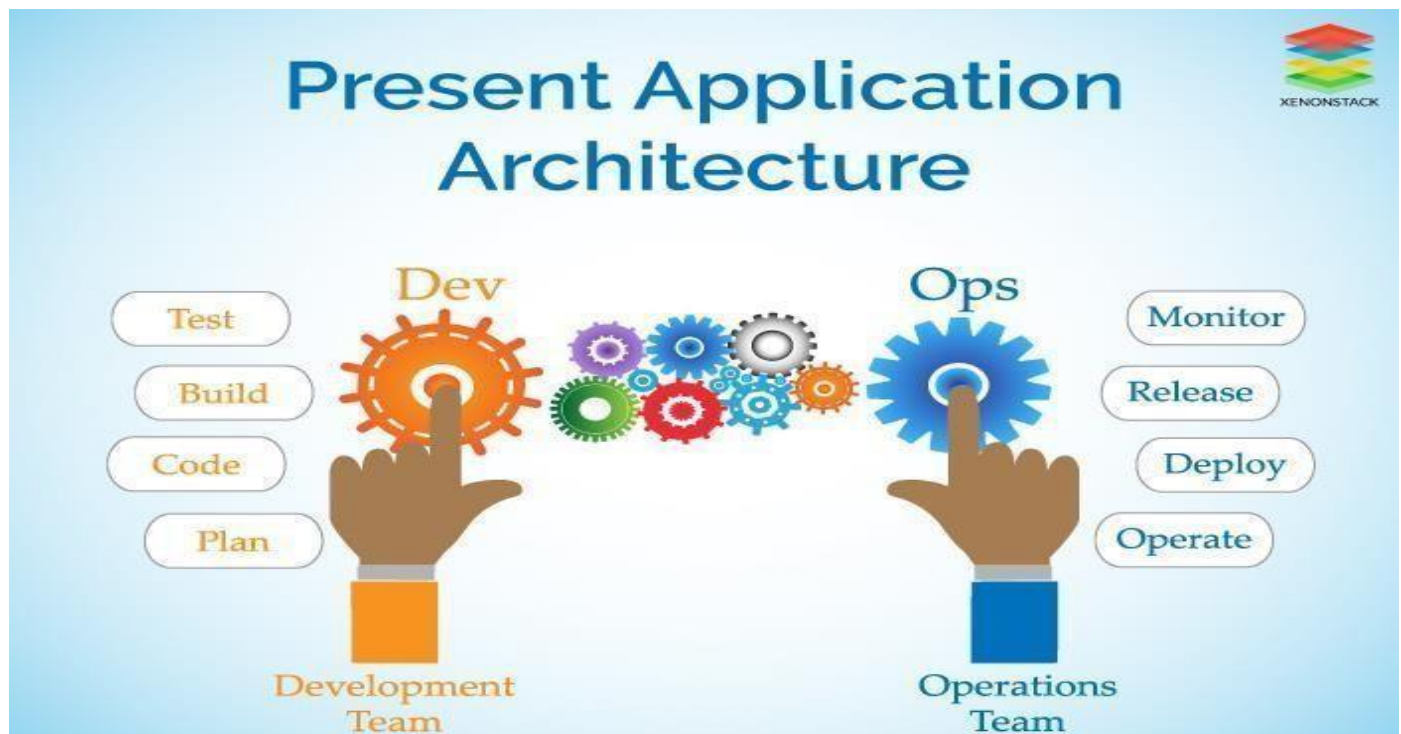
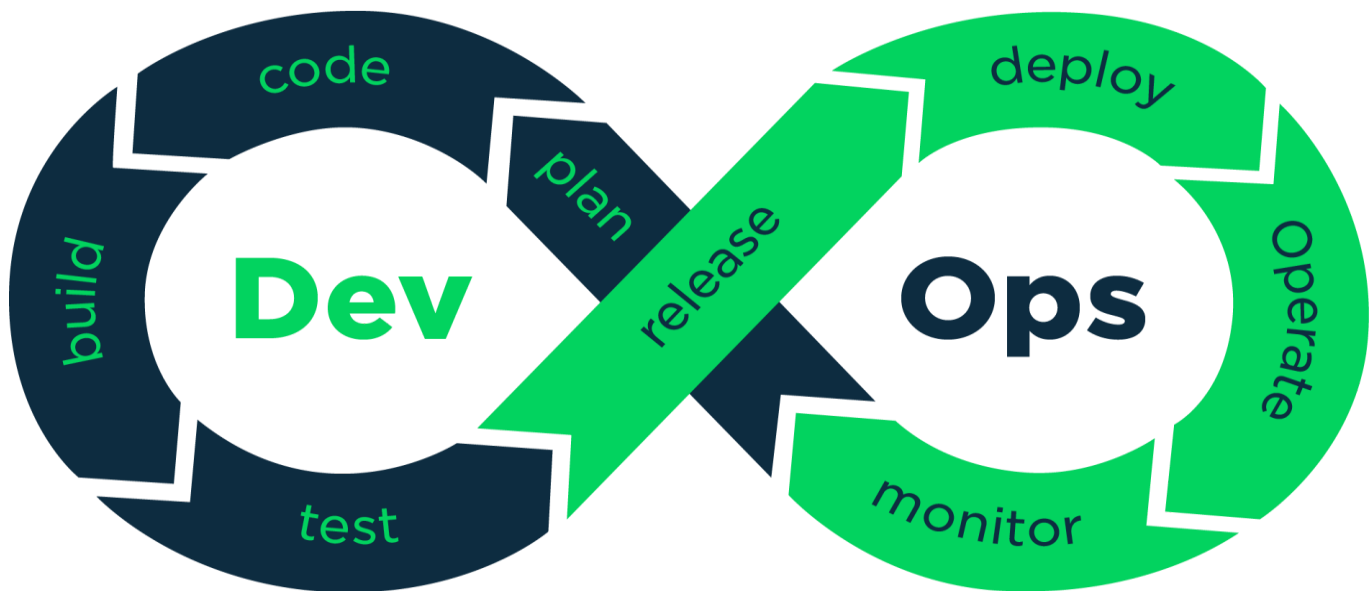




LEARN, THINK, INNOVATE



## Overview

Let eMexo Technologies **Best DevOps Training in Electronic City Bangalore** take you from the fundamentals of DevOps to Advance DevOps and make you an expert in developing real-time DevOps applications. Here are the major topics we cover under this DevOps course Syllabus. **Introduction to DevOps, DevOps on Cloud, GIT – A version control tool, Jenkins – Continuous integration, Docker – A containerization technology, Kubernetes, and Ansible – A Configuration Management.**

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 which they teach. We hire only the Best DevOps industry specialists as trainers for our **DevOps Training Course in Electronic City Bangalore.**

If you are looking for **DevOps Training in Electronic City**, eMexo Technologies is the **Best DevOps 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 and only then do you make the decision to enroll in the DevOps Certification Training in Electronic City.

## 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 which 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 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
- ★ Real World use cases and Scenarios
- ★ Completed 500+ Batches
- ★ Certification Guidance

## Unit 1: Introduction to DevOps

This session will help you understand the purpose and the scope of DevOps in the current market, tools and the skills the market is looking for, and how the culture is applied in the industries

- DevOps Principles in detail
- DevOps Engineer Skills in the Market
- Knowing DevOps Delivery Pipeline
- The market trend of DevOps
- DevOps Technical Challenges
- Tools we use in DevOps

### Hands-on:

- A brainstorming session on the trends in current IT industries

## Unit 2: DevOps on Cloud

This session will help you understand how DevOps is currently being used on cloud infrastructure by automating the entire setup. Learn cloud setup helps faster releases, fewer software failures, and how trendy it is.

- 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

### Hands-on:

- How to set up an AWS account
- Various AWS services for DevOps – An overview
- DevOps using AWS – Demo

## Unit 3: GIT – A version control tool

This session will help you understand why the version control system streamlines the development of working with different people and makes it very easy to collaborate on projects.

- Knowing about Version control
- Git – A CLI
- Essentials of GIT in Industry
- How to setup GIT
- 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:**

- Installing Git
- First-Time Git Setup
- Getting a Git Repository
- Working with various git commands
- Working with Local repository vs remote repository
- Managing remote repository

- Stashing operations and various local repository operations
- Branching and merging operations
- Resolving conflicts during merges
- Managing access to repository management

## Unit 4: Jenkins – Continuous integration

This session will help you understand why Jenkins is evolving as a must tool in the current DevOps practices. Understanding how Jenkins allows current industries to set up their build pipelines with a more quick and sophisticated build process by drastically reducing the risks in the software development lifecycles.

- Essentials of Continuous Integration
- An example scenario where CI is used
- Know about Jenkins and its architecture in detail
- Jenkins tool Management in detail
- 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 the 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, triggering another build, publishing reports, etc.
  - Adding a slave node to Jenkins
  - Building Delivery Pipeline
  - Notification settings in Jenkins
  - Plugin management in Jenkins

**Hands-on:**

- Installing Jenkins
- Post-installation setup wizard
  - Unlocking Jenkins
  - Customizing Jenkins with plugins
  - Creating the first administrator user
- Administration of Jenkins
- User management – Authentication and Authorization
- Master-slave set up on Jenkins
- Creating basic jobs to pull code from GitHub
- Jobs to perform individual operations
- Setup build pipeline
- Understanding build triggers, build and post-build operations
- Deploying an application to a container using Jenkins

**Unit 5: Docker – A containerization technology**

This session will help you understand why Docker knowledge is required in order to master DevOps cultures in the current IT industry. Understanding containerizing the application is also isolating that into a completely separated environment.

- Introduction
  - Real-world Shipping Transportation Challenges
  - Introducing Docker and its technology
  - Understanding of Docker images and containers
- Working with containers
  - 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, MySQL
  - How to Start Containers on a Cluster with Docker Swarm
  - Creating and Scaling an application in Docker swarm

**Hands-on:**

- How to setup docker-engine
- How to run a docker container from pulling image from public repo
- How do we create a docker file
- Creating different docker files for different application

- Creating a docker-compose file to deploy multi-container
- Creating docker custom bridge networks
- Creating a docker swarm cluster
- Orchestration of container using swarm cluster

## Unit 6: Kubernetes

This session will help you understand how Kubernetes helps to orchestrate the Docker containers. How the open-source system helps to automate the deployment, scaling, and managing the containers.

- Introduction to Kubernetes
- Kubernetes Cluster Architecture – An overview
- Understanding concepts of Pods, Replica sets, deployments, and namespaces
- Understanding the concepts of services and networking
- Persistent volumes and persistent volume claims – an overview
- Design of Pods
- Understanding labels, selectors, jobs, and schedulers

### Hands-on:

- Setting up the Kubernetes Cluster
- Deploying an app through Kubernetes Dashboard
- Accessing the application through the service
- Rolling updates in Kubernetes
- Creating and adding volumes

## Unit 7: Ansible – A configuration Management

This session will help you understand how significantly Ansible reduces your coding hours with the configuration management tool. Understanding the most popular configuration management tools to set up easily, configure easily, and deploy IT infrastructure easily.

- 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 Adhoc commands
  - Parallelism and Shell Commands
  - File Transfer
  - Managing Packages

- Users and Groups
- Deploying From Source Control
- Managing Services
- Introduction to the YAML script
- Playbook
- About Playbooks
  - Playbook Language Example – YAML
  - How to Write Playbooks
  - Tasks in Playbooks
  - Understanding various tasks in the playbook
  - Introduction to Handlers and Variables
  - Learn about using handlers, variables in the playbook
  - Become (Privilege Escalation)
- Roles
  - Role of 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

#### **Hands-on:**

- How to setup Ansible server and target servers
- Writing Adhoc commands to install and configure the servers
- 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 a playbook
- How to use Ansible Galaxy to download roles.
- Example – Install and use Jenkins roles from ansible-galaxy

## **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 trainers. 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 the 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.