Cognixia, formerly known as Collabera TACT, is a Collabera Learning Solutions Company.

Being a consistently awarded Digital Technology Training Company, we bring you the best quality technology courses and certifications. With our in-house incubators on Digital technologies like IoT, Cyber Security, Machine Learning, AI & Deep Learning, Blockchain, Cloud, DevOps & other domains, Cognixia can help in transforming your workforce and partner with you in your Digital transformation strategy.

Since 2014, we have trained and up-skilled over 100,000 people across 37 countries. With 1300+ experienced trainers, 250+ courses, state-of-the-art infrastructure, we bring you the best learning experience.

Cognixia provides multiple learning models – Public batches as well as custom built private batches for individuals as well as corporates. Our training delivery models are Instructor led online trainings, Classroom trainings and On-demand self-paced digital trainings.

Cognixia has been recognized as the Best training provider in Digital technologies like Big Data, IoT, Cloud Computing and DevOps. We are ranked amongst Top 5 emerging technologies training companies, and have been awarded as the Best Training Company by various prestigious bodies.

Cognixia is a MAPR Advantage Partner, Hortonworks Community Partner, RedHat Enterprise Partner, Microsoft Silver Learning Partner and an Authorised Training Partner with DELL EMC, Pivotal, VMware, RSA Technologies and Automation Anywhere.
OUR AWARDS & AFFILIATIONS

Best Workplace Amongst Emerging Enterprises Awarded By Great Indian Workplace Awards - 2018 Mumbai, India

Top 10 IoT Training Companies for the Second consecutive year.

Cognixia is awarded as Training Company of the Year 2019

ISO 9001:2015 Certified Quality Management System


World HRD Congress has awarded for Excellence in Training (Asia)
AUTHORIZED TRAINING PARTNERS FOR

- redhat
- MAPR Advantage Partners
- Silver Microsoft Partner

- Dell
- VMware
- RSA
- Pivotal

www.cognixia.com
DevOps is a practice combining the Development Operations and the System Operations. "DevOps" as a term was first coined in 2009 by Patrick Debois, who became one of the chief proponents for DevOps. DevOps brings together software development and operations, amalgamating the two disciplines, encouraging communication, collaboration and cohesion between the traditionally separate developers and IT operations teams.

The DevOps methodology recognizes the interdependence of the development group and operations group and integrates it into one department/team, thereby helping an organization deploy software a lot more frequently while also maintaining service stability as well as gaining the pace required to breed innovation.
WHO SHOULD STUDY DEVOPS?

DevOps is for anybody who wants to grasp how the concepts of DevOps can help an organization focus on value and streamline the delivery process. It is also for individuals who are keen to learn more about common infrastructure servers, scalability and availability.

Learning DevOps would be ideal for software developers, technical project managers, architects, Operations support team members, deployment engineers, IT managers, development managers, etc.

By getting trained in DevOps one would be much better place to build a career as a DevOps engineer or a service engineer in the enterprise infrastructure arena.

ELIGIBILITY/ PRE-REQUISITES

• Knowledge of software development, preferably in Java, and the UNIX/Linux command line tools is essential for this
"When we talk about what DevOps is, it is CALMS: Culture, Automation, Lean, Measurement, and Sharing."
- Nicole Forsgren, CEO of Consultancy DevOps Research and Assessment

"Although many organizations are in the experimentation stage with single or multiple pilots, they all are transitioning toward DevOps across their entire enterprise."
- Forrester

"We need to understand how this effort and the investment we're making in DevOps transformations is actually improving the bottom line of our business, and the way you do that is by looking at the data."
- Tim Buntel, Vice President of Products at XebiaLabs
DEVOPS PLUS PROGRAM STRUCTURE

Total 48 hours spread over 16 days (3 hours per day) of live online training with industry experts

POC support and hands-on assignments to gain an in-depth understanding

ANSIBLE

CHEF

maven

amazon web services

git

puppet labs
Day: 01A - Introduction to DevOps

- Define DevOps
- What is DevOps
- SDLC models, Lean, ITIL, Agile
- Why DevOps?
- History of DevOps
- DevOps stakeholders
- DevOps goals
- Important terminology
- DevOps perspective
- DevOps and Agile
- DevOps tools
- Configuration management
- Continuous integration and deployment

Day: 01B - Introduction to Virtualization

- What is Virtualization?
- History of Virtualization
- What is a Hypervisor?
- Types of server virtualization
- Benefits of virtualization
- Important virtualization products

Day: 01C - VAGRANT

- Introduction
- Why and what is Vagrant
- Uses of Vagrant in an environment
- Alternatives to Vagrant
- Vagrant versions
- Installation and configuration
- Installing Virtual box
- How to install Vagrant on Windows
- Configuring Vagrant
- Provisioning with Vagrant
- Creating first VM with Vagrant
- Operations on the VM
- Connecting to the VM
- Add required images to Vagrant
- Using Vagrant

Day: 02 - GIT: Version Control

- Introduction
- Version control systems
- Local, Centralized and distributed
- Installing Git
- Installing on Linux
- Installing on Windows
- Initial setup
- Git essentials
- Creating a repository
- Cloning, checking-in and committing
- Fetch, pull and remote
- Branching
Day: 03 & 04 - Docker – Containers

- Introduction
  - What is a Docker
  - Use case of Docker
  - Platforms for Docker
  - Dockers vs Virtualization

- Architecture
  - Docker Architecture.
  - Important Docker components
  - Understanding the Docker components

- Installation
  - Installing Docker on Linux.
  - Understanding Installation of Docker on Windows.
  - Some Docker commands.

- Provisioning
  - Docker Hub.
  - Downloading Docker images.
  - Running Docker images
  - Running commands in container.
  - Running multiple containers.

- Custom images
  - Creating a custom image.
  - Running a container from the custom image.
  - Publishing the custom image.

- Docker Networking
  - Accessing containers
  - Linking containers
  - Exposing container ports
  - Container Routing

- Docker Compose

Day: 05, - Chef for configuration management

- Overview of Chef
- Common Chef Terminology
  (Server, Workstation, Client, Repository etc.)
- Servers and Nodes
- Chef Configuration Concepts
- Workstation Setup
- How to configure knife
- Execute some commands to test connection between knife and workstation
- Organization Setup
- Create organization
- Add yourself and node to organization
- Test Node Setup
- Create a server and add to organization
- Check node details using knife
- Node Objects and Search
- How to Add Run list to Node
- Check node Details
- Introduction to Environments in Chef
DETAILED CURRICULUM : MODULES

Day: 06, - SaltStack for configuration management

- Overview of Salt
- Salt Terminologies
- Master and Minions
- Salt Configuration Concepts
- Salt Access Control
- Salt Job Management
- Salt Package Manager
- Salt Working Example
- Salt Logging

Day: 07,08 - Puppet for configuration management

- What is Puppet?
  - How puppet works
  - Puppet Architecture
  - Master and Agents
  - Configuration Language
  - Resource Abstraction Layer
  - Transactional Layer

- Installation and Configuration
  - Installing Puppet
  - Configuring Puppet Master and Agent
  - Connecting Agents

- Puppet Master
  - Puppet configuration tree
  - Puppet configuration files

- Puppet Language Basics
  - The declarative language
  - Resources
  - Resource Collectors
  - Virtual Resources
  - Exported Resources
  - Manifests
  - Relationships and Ordering
  - Modules and Classes
  - Class Parameters
  - Defined Types

- Puppet Language Advanced
  - Facter
  - Variables
  - Conditional statement
  - If Else
  - Case and Selectors
  - More Conditionals and Logic
  - Resource relationship

- Templates
  - Static Contents Explosion
  - Using Dynamic Content with Templates
  - Templates Overview
  - ERB
DETAILED CURRICULUM : MODULES

Day: 09, 10 - Ansible

- Introduction to Ansible
- Ansible architecture
- Ansible terminology
- Ansible commands
- Adding nodes to server
- Ansible installation and configuration
- Installing ssh on nodes
- Generating the keys
- Components of Ansible
- Inventory
- Configuration
- Modules
- Playbooks
- Global configuration
- Roles
- Tags
- Writing playbooks
- PYYAML overview
- Ansible modules
- Ansible Roles
- Ansible Galaxy
- Download playbooks from Galaxy
- Realtime playbooks

Day: 11 - Nagios: Monitoring

- Introduction and Installation
  - Obtaining Nagios
  - Compiling and installing Nagios

- Basic configuration
  - Creating a new host and service
  - Creating a new e-mail contact
  - Verifying configuration
  - Creating a host group and service group
  - Creating a new contact group
  - Creating a new time period

- Plugins and commands
  - Finding and installation of a Plugin
  - Removing a plugin
  - Creating a new command
  - Customizing commands

- Using Nagios GUI
  - Scheduling downtimes
  - Generating reports
  - Configuring notification
  - Configuring checks
  - Managing Flapping

- NRPE Monitoring
  - Enabling Remote Execution
  - Monitoring local services on a remote machine with NRPE
  - Setting the listening address for NRPE

Example Code Manifests/Modules
- NTP Module
- Users Module
- SSH
- Sudo
• Setting allowed client hosts for NRPE
• Creating new NRPE command definitions securely
• Creating a custom NRPE script.

Day: 12 - Jenkins – Continuous Integration

• Introduction.
  • Understanding continuous integration
  • Introduction about Jenkins
  • Build Cycle
  • Jenkins Architecture

• Installation
  • Obtaining and installing Jenkins
  • Installing and configuring GIT
  • Java installation and configuration
  • Maven Installation
  • Exploring Jenkins Dashboard.
  • Creating Jobs
  • Running the Jobs
  • Adding and updating Plugins
  • Disabling and deleting jobs

• Build Deployments
  • Understanding Deployment.
  • Tomcat installation and configuration
  • Deployment Plugins
  • Deploying a war file from Jenkins to Tomcat
  • Securing Jenkins

• How to integrate Jenkins with Ant
• How to integrate Jenkins with Maven
  • Authentication
  • Jenkins Plugin
  • Authorization
  • Confidentiality
  • Creating users
  • Best Practices for Jenkins

• Jenkins Parameterized build
• Environment inject plugin
• Use of Jenkins environment variables
• Deploying a specific revision
• Customizing the Jenkins UI
• Project based Matrix plugin
• Parallel Execution
• Configuring Jenkins Hub and Node
  in the cloud (AWS)
• Configuring a Selenium Desktop node
  with a Linux Server (AWS)
• Case Study
• Real time implementation of Automated role back
• Multi branch Deployment.
Day: 13 - Docker Container Clustering using Docker Swarm

- Need for Clustering
- Setting up & Initializing Swarm
- Managing Docker Swarm
- Backup and Recovery
- Managing Services
- Docker Compose & Deploying Application Stack on Docker Swarm

Day: 14, 15 - Docker Container Clustering using Kubernetes

- Introduction
- Kubernetes Ecosystem: Community, Contributions, Governance, and Integrations
- Kubernetes Architecture
- Kubernetes Networking & Services
- Kubernetes Users Tools
- Configuring and Deploying an Application on Kubernetes

Day: 16 - Advanced DevOps (CI/CD Pipeline Automation)

- Jenkins Blue Ocean
- PipeLine As Code
- End-to-End CI/CD Pipeline Automation
- Automated deployment of code from repository to server with configuration management
COGNIXIA’s KEY DIFFERENTIATORS

- LIFETIME LMS ACCESS
- 24 x 7 SUPPORT
- REAL-LIFE PROJECTS & CASE STUDIES
- INDUSTRY EXPERTS AS TRAINERS
- REAL-TIME CLOCK MODULE
POTENTIAL CAREER OPTIONS

- DevOps ENGINEER
- DevOps ARCHITECT
- ASSOCIATE DEVELOPER – DevOps
- BUILD & RELEASE ENGINEER
- CI/CD – RELEASE AUTOMATION ENGINEER
TESTIMONIALS

RAGHAV SINGH, BANGALORE, India
This course is very comprehensive. It covers both foundational as well as advanced concepts. I was able to grasp a number of concepts that focus on value and enhanced the overall delivery process.

AJINKYA KULKARNI, PUNE, India
Both the training and the technical teams were quite helpful and courteous. The course curriculum is also very informative.

HARSHIT KALMADY, CHENNAI, India
Excellent training with an all-inclusive curriculum. Would highly recommend it to my peers and other technology enthusiasts.

JOSH BLAINE, United States
It is one of the most wholesome courses on DevOps. It covers most of the cutting-edge tools and applications. The trainers are very professional and the support team was also very helpful.

JOE MARTIN, Australia
The DevOps Plus training offered by Cognixia is apt not only for beginners but also experienced professionals who want to make a transition from traditional methodologies to DevOps. The training and technical teams did a commendable job in providing prompt support.
DevOps Plus Training