



DEVOPS



DevOps Course Content

Lesson 1: Introduction to DevOps

- Learning Objectives
- Why Devops?
- What is Devops?
- Devops Lifecycle
- Overview of DevOps Tools:
 - Git
 - Maven
 - Jenkins
 - Junit
 - Selenium
 - Puppet
 - Ansible
 - Docker
 - Kubernetes
 - Nagios
- Categories of DevOps Tools
- Key Takeaways: DevOps Delivery Pipeline

Lesson 2: Version Control with Git

- Overview of Version Control Systems
- What is Git
- Installing Git
- Common commands in Git:
 - git init
 - git clone
 - git add
 - git status
 - git commit
 - git branch etc.
- Key Takeaways:
 - Git Life cycle Commands
 - Pushing Code to Github
 - Creating, Deleting Git Branches
 - Reverting a Push to GitHub
 - Merging branches using git merge
 - Resolving merge conflicts

Lesson 3: Build automation with Maven

- Maven Introduction
- Maven Installation
- Maven - Core concepts



- Maven Lifecycle
- Maven Repositories
- Dependency Management

Lesson 4: Continuous Integration with Jenkins

- Overview and Importance of Continuous Integration
- Overview and Features of Jenkins
- Jenkins Master Slave Architecture
- Understanding CI/CD Pipelines
- Creating an end to end automated CI/CD Pipeline
- Installing Plug-ins in Jenkins
- Continuous Integration with Jenkins, Git and Maven:
 - Maven Compile job in Jenkins
 - Maven Unit Test job in Jenkins
 - Maven Package job in Jenkins
- Building Delivery Pipeline

Lesson 5: Continuous Testing with JUnit and Selenium

- What is Continuous Testing?
- Software Testing Overview
- Test-Driven Development Approach with Junit
- Writing JUnit Assertions
- Testing Performance in JUnit Tests
- JUnit Best Practices
- Introduction to Selenium
- Using Maven with Selenium
- Creating Test Cases with Selenium
- Running Test Cases on Chromium Web Driver
- Create Sample Test Case for a website using Selenium
- Integration of JUnit and Selenium with Jenkins

Lesson 6: Configuration Management Tools: Ansible, Puppet

- Need of Configuration Management
- Overview of Configuration Management Tools
- Managing Infrastructure
- Overview of Puppet, Chef
- Overview of Ansible
- Comparison of Ansible, Puppet, Chef
- Ansible Installation
- Ansible Architecture
- Setting up Master Slave using Ansible
- Introduction to YAML
- Ansible Playbook, Modules



- Ansible Roles
- Applying configuration using Ansible

Lesson 7: Containerization with Docker

- Overview of Virtualization
- Overview of Docker
- Dockers vs Virtualization
- Introduction to Docker Ecosystem
- Docker Installation on Multiple OS
- Important Docker commands
- Database in Docker Container
- Using Docker Compose to Manage a Container
- What is Container Orchestration
- Container Orchestration Tools
- Introduction to Docker Swarm
- Deploying a 2-Node Cluster using Docker Swarm
- Docker Networking
- Docker Container Networking

Lesson 8: Containerization using Kubernetes

- Introduction to Kubernetes
- Docker Swarm vs Kubernetes
- Kubernetes Architecture
- Deploying Kubernetes using Kubeadms
- Understanding and using YAML files
- Creating a Deployment in Kubernetes using YAML
- Creating a Service in Kubernetes
- Installing Kubernetes Dashboard
- Deploying an app through Kubernetes Dashboard

Lesson 9: Continuous Monitoring using Nagios

- What is Continuous Monitoring
- Types of Monitoring Systems
- Introduction to Nagios
- Nagios Architecture
- Working with Nagios Monitoring Tool
- Monitoring Services in Nagios
- What are NRPE Plugins
- Monitoring System Info using NRPE plugins



Starting with DevOps (Prerequisites of the course)

Linux Basics

- Installing Linux
- The Course Overview
- Introducing Concepts of Virtualization
 - Installing CentOS 7 in Virtualbox
 - How to work with Virtualbox
 - Connect to Your VM Through SSH

Getting To Know The Linux Command Line

- Working with Commands
 - Quoting Commands
 - Getting Help in the Command Line
 - Working in the Shell Efficiently
 - Streams, Redirects, and Pipes
 - Regular Expressions and grep
 - The sed Command
 - The Awk Command
 - Navigating the Linux Filesystem

Working with Files in Linux

- How to Work with File Links
- Searching for Files
- Working with File Permissions
- Working and Viewing Text Files in Linux
- The VIM Text Editor



Q: Why should I choose Training Basket over other training providers?

Ans. Training Basket provides a unique amalgamation of quality, convenience, flexibility and cost. Training Basket has some of the best trainers in the industry. Our trainers excel not just in depth and width of knowledge, but also in their patience and ability to explain difficult concepts in simple terms.

Training Basket has made serious investments with long-term vision for ensuring good environmental factor for studies by first buying their own suites in the prestigious iThum Towers in NOIDA, Sec-62. This lets us configure our labs and classroom suited best to our student's comfort and focused studies.

Q: What is the criterion for availing the Training Basket job assistance program?

Ans: All Training Basket students who have successfully completed their training in any of our courses are directly eligible for placement assistance.

Q: Which are the companies that Training Basket has placed students in the past?

Ans: We have exclusive tie ups with MNC's like Ericsson, Cisco, Cognizant, Tech Mahindra, MEON, Bingo, Genpact etc.

Q: Do I need a prior industry experience in getting an interview opportunity?

Ans: There is no need to have prior opportunity for getting an interview call. The successful completion of any industry level technology training at Training Basket is like an industry experience. This training makes you confident to clear interviews and we also conduct in-house mock interviews on our online assessment platform where we assess our student's skills by testing their code online or industry specific assessment before sending them for interviews.

Q: How does Training Basket assist in placement?

Ans: You will be guided on creating an attractive template based resume. You will get opportunity to attend free personality development program and mock interviews conducted by our SME's to boost your confidence for real interviews. Plus you will be given our level assessment platform where we assess our student's skills by testing their code online or industry specific assessment.

Q: If I don't clear in first attempt, will I get another chance?

Ans: Yes, for sure. Your resume will be active on our job portal and will be visible to all our associates and clients. Training Basket will continue to send your resume to future job requirements matching your profile till you land a job.

Q: Does Training Basket Guarantee job through it's job assistance program ?

Ans: Training Basket does not guarantee job placement but it will continue to assist you on best efforts basis to place you in it's affiliated companies' network.

COMPANIES WHERE OUR STUDENTS ARE PLACED

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Five Dimensions Infotech

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