



Powered by 3RI Technologies



Instructor-Led Online Training

PREMIUM CORPORATE TRAINING

www.3ritechnologies.com

About Us

COMPANY HIGHLIGHTS



3RI is an Advanced Technology Education Platform providing advanced and professional training in Data Analytics that helps freshers and professionals rise to the advanced skills requirements of the current industry.

Powered by 3RI Technologies, these classroom training sessions are industry-oriented courses on Data Science, Machine Learning, and Python by top-class faculty who have more than 7+ years of experience in the same domain.

The curriculum is designed by industry experts, who have real-time scenario-based exercises and case studies and projects using databases from companies like Walmart, Amazon, Google, etc. This training is supported with teaching assistance which allows individuals to develop hands-on skills by applying the concepts and becoming technically proficient.

www.3ritechnologies.com

Index

WHAT IS WHERE?

1. Faculty
2. Subject & Tracks
3. Curriculum
4. Project Work & Case Studies
5. Placement Support
6. Meet The Team
7. FAQ's
8. Coordinates



Faculty

THE TECHNOLOGY EXPERTS



CERTIFIED TRAINERS

3RI has a team of Cloud Computing, AWS & DevOps Working Professionals with 8+ Years of Relevant experience.

TRAINING METHODOLOGY

3RI follows the unique methodology which is followed by every trainer to align with today's IT Industry standard. It's a complete Corporate method of hands-on knowledge-based training.

www.3ritechnologies.com

Subjects & Tracks



WHAT MAKES 3RI DIFFERENT?

DEVOPS & AWS

DevOps is one the best among Top ten highly paid jobs in world. This training is inline with industry expectations and certifications

AWS ASSOCIATE LEVEL

It is a basic level of AWS Training for every individual who would like to initiate their career in cloud computing.

100% JOB ORIENTED PROGRAM

This curriculum is designed by keeping in mind that what skills can be provided to a Fresher in Cloud Computing that he will become Employable.

www.3ritechnologies.com

Module 1: AWS



1. Introduction to Cloud & AWS

- Define cloud computing.
- Cloud computing Infrastructure.
- Cloud service and deployment models.
- Common misconceptions about cloud computing.
- Common cloud Implementations.
- Architecture discussion
- Lab preparation
- AWS account creation
- Overview of major AWS services
- Benefits of studying AWS

2. Identity And Access Management Techniques (IAM)

- Understand Users, Groups, and Roles
- Policies and Policy documents
- Lab creating roles, user,s and groups
- Access control
- Policy management
- Lab policy creation
- Restricting different services for users.

Module 1: AWS



3. Amazon Elastic Compute Cloud (EC2)

- Defining EC2 Instances
- Different types of Images (AMI)
- Lab creation Linux/Windows EC2 instances
- Lab connecting to EC2 instances
- Lab AMI creation
- Volumes (EBS)
- Lab volume creation
- Lab setting up a volume once attached to Ec2
- Lab snapshot creation
- Lab security Groups

- Key Pairs
- Elastic Load Balancing
- Lab Elastic load balancing
- Launch configuration
- Auto-scaling concepts
- Lab Auto scaling
- Lab creation of billing alerts
- Lab Cloud Watch

Module 1: AWS



4.S3

- S3 buckets and its usage
- Lab creating an S3 Bucket
- Lab uploads and retrieve data from the S3 bucket.
- Lab giving privileges on to S3 bucket.
- Lab on S3 policies and ACLs
- Lab Life Cycle Management
- Lab object expiration in S3
- Lab S3 Versioning
- S3-RRS, S3-IA, and Glacier
- CORS, Lab S3 Policy
- Lab hosting a website on S3

5.Networking: Setting up VPC and NAT

- Lab creation of custom VPC
- Default VPC concepts
- Lab CIDR notation
- Subnets and routing concepts
- Different methods to connect to custom VPC
- Lab to create Subnets
- Lab ACLs, Lab Routing rules.
- Lab to create security groups at an instance.
- Lab setting up public and private subnets.

www.3ritechnologies.com

Module 1: AWS



- Lab setting up Internet/Nat gateway
- Lab Securing your network.
- Lab Network ACLs

6.AWS Databases RDS & Dynamodb

- AWS Database services overview – RDS, DynamoDB, ElastiCache, Redshift
- Lab creating RDS instances
- Read Replicas
- RDS scaling concepts, postgres sql server
- RDS Oracle Server
- Database migration Service

- Lab configuring Multi-AZ failover
- Lab accessing a database hosted on RDS
- DynamoDB Core knowledge
- Scaling with Dynamodb
- DynamoDb write and read unit calculation, ElastiCache concepts

Module 1: AWS



7.SNS, SWF and SQS

- Working with the simple notification system.
- Understanding queuing service.
- SNS and SQS real-time use case
- Introduction to SWF and use case
- Lab on SNS

8.Application Services

- R53 and DNS
- Domain registration
- R53 routing policies

- Lab on routing policy setup
- Routing policies in detail
- AWS CloudFront
- AWS Cloud Formation
- Deployment Using Cloud Formation
- Direct Connect



Project Work and Case Studies



- Hands-on workshop/Project: Deploying a web application using AWS services
- Deploy a Python/Java application to access/create/upload files on S3 through EC2
- Deploy a Python/Java application to create tables, insert values in DynamoDb through EC2
- Lab on Kinesis, through cloud formation
- Designing Fault-tolerant and Highly Available architecture
- Data Security
- Backup and Disaster Recovery
- Deployment on AWS
- Cost Optimization in AWS

Preparation for Certification

AWS - Solution Architect Associate



- 500+ Practice Questions, in-line with certification.
- Doubts Clarification Session.
- Resume Preparation Guidance by Expert.
- Interview Preparation by Certified AWS Trainer.

Module 2: DevOps Engineering



1.DevOps Introduction

- What is DevOps?
- Why DevOps is needed?
- DevOps Transition ?
- Technical Challenges
- DevOps Market Trends
- Various DevOps Tools
- DevOps pipelines

2.Basic Linux and Networking

Concepts

- Architecture and Filesystem of Linux
- Linux Bash Commands
- Managing Services on Linux
- User and Group management
- Filesystem usage.
- IP assignment and Service Ports
- Installing and Configuring Apache

Module 2: DevOps Engineering



3.Shell Scripting

- Understanding fundamentals of Software Programming
- Scripting Introduction
- Shell Scripting – Learning to automate Operating System

4.Source Code Management and Version Control

- Source Code Management using GitHub
- History of version control systems
- Centralized vs Distributed version control system

- Source Code Management System using Github
- Working on Git Command-Line and GitHub GUI
- Cloning and check-in and committing. Repository creation etc
- Build Tools (Maven/Gradle)
- Understanding Branching, Merging, Forking, pull etc

Module 2: DevOps Engineering



5. Continuous integration with Jenkins

- Jenkins - Installation
- Jenkins - Configuration
- Jenkins - Management
- Jenkins - Setup Build Jobs
- Integration of JENKINS with GIT
- Integration of Maven with Jenkins
- Jenkins Dashboard
- Remote Builds and user management in Jenkins
- Understanding Plugins and dependency.

- Pipeline Creation using Jenkins for CI
- Jenkins - Testing

6. Ansible Tool

- Introduction of Ansible tool
- Introduction to YAML Syntax
- How to Install Ansible?
- Ansible: Playbooks and Modules live examples on several industry scenarios
- Basic: Running Commands
- Ansible: Roles, Files, Templates, Handlers
- Ansible: Best Practices

www.3ritechnologies.com

Module 2: DevOps Engineering



7. Docker Session & Orchestration

Tools

- Introduction to micro services
- Introduction to Docker
- Introduction to Docker commands practical
- Working with containers
- Introduction to docker HUB
- Docker Demo
- Docker Swarm
- Docker Compose

8. Kubernetes

- What is Kubernetes
- Technical Overview of POD, NODE, Containers
- Kubernetes Cluster with multimode architecture
- SCALE IN/SCALE OUT on demand
- Services, deployments architecture
- HELM overview

Module 2: DevOps Engineering



9. Terraform

- What is Terraform
- Build infrastructure using Terraform code
- Change, destroy, manage infrastructure
- Integrating Terraform on AWS
- Updates to existing setup using Terraform



Project Work and Case Studies



Ansible Case Studies:

- Ansible playbook to install apache and configure httpd.conf as per required.
- httpd daemon should be started and change index.html using lineinmodule for specific parameters
- Ansible playbook using copy module to copy the vsftpd/httpd conf file to /var/www location
- Replace all instances of 'AllowOverride None' with 'AllowOverride AuthConfig' in /etc/httpd/conf/httpd.conf using replace module or lineinmodule
- Files copied should have backup in place and read permissions for all users
- Playbook to copy /usr/local/bin/runme.sh to /usr/bin/runme.sh on all nodes and the files should have execute permissions and owned by DevOps users
- Ansible playbook to create users and add them to respective groups

Project Work and Case Studies



Ansible Case Studies:

- Ansible playbook to execute multiple playbooks at same time without executing single yml every time
- Hardening of AWS instances to be done where httpd/nfs needs to be installed
- Users can be created with specific privileges, crontabs should be added with desired task
- DNS entries needs to be updated etc/httpd/conf/httpd
- Understand Templates, Roles, Handlers etc in Ansible and best practices being used in Production environment

Project Work and Case Studies



Terraform Case Studies:

- Terraform code to create 5-7 EC2 instances at same time
- Terraform code for dependency module
- Code to create multiple EC2 instances only if s3 bucket exists else discard the spawning.
- Create multiple users in AWS using terraform code at same time with specific privileges
- How to destroy only specific type instances from an existing code or run only specific task for an existing terraform code without hampering other running infrastructure.
- Best other practices for terraform and limitations

Project Work and Case Studies



Jenkins Case Studies:

- Jenkins project to integrate Git with it. Run remote builds using Jenkins and later push/pull the builds from Git so that its automatically picked via Jenkins
- Project to integrate Maven with Jenkins and automate project to do Maven build using Jenkins
- User management using specific plugins in Jenkins so that all users doesn't have access to all projects in Jenkins. Security tuning in Jenkins
- Other best practices used in companies for Jenkins
- Pipeline creation using Jenkins to automate several tasks.
- Several scenarios to do actual troubleshooting in Jenkins related to errors, failures in builds.

Project Work and Case Studies



End to End Project Work and Case Studies:

- Web based application using Tomcat, Apache , EC2, MAVEN, JENKINS , GIT
- Multi-tier application build using Tomcat, Apache , EC2, MAVEN, JENKINS , GIT , ANSIBLE
- CI-CD Integrating DOCKER/CONTAINERS with Java Application and Ansible with JENKINS
- Tomcat installation and customized code changes in server.xml
- CI-CD using Kubernetes and Jenkins
- Create multiple users in AWS using terraform code at same time with specific privileges
- Best real time practices followed in IT Industry

Placement Support

DON'T FORGET



Placement at Our Client's Location



Interview Preparation



Resume Workshop by Experts



Real World Application Integration in Resume



Exclusive Sessions from Experts

www.3ritechnologies.com

Meet The Team

THE PRESENTERS



INDRAJEET
SIR
DevOps
Certified Trainer



RISHIRAJ
SIR
AWS Solution
Architect



SUBHASHISH
SIR
DevOps
Engineer

www.3ritechnologies.com

FAQ's



- **Do I need to purchase any Software ?**

No, we provide necessary installation guides of the software required.

- **What are the specific System Requirements ?**

8 GB RAM, 500GB Hard disk (i3 Processor).

- **What are Projects ?**

Projects are real world datasets from companies like Gmail, Facebook, flipkart, Amazon, etc. that are provided to our students.

Contact Us



3RI Technologies Pvt Ltd
405, Rainbow Plaza, Pimple Saudagar,
Pune - 411027



info@3ritechnologies.com



+91 830 810 3366 / +91 74100 73340
+91 866 965 8215 / +91 96238 68215

www.3ritechnologies.com