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AR TECHNOLOGIES



ONLINE / CLASSROOM TRAINING BATCH TIMING

FOR WEEKDAYS WE HAVE 5 BATCHES

7 AM TO 8 AM

8 AM TO 9 AM

9 AM TO 10 AM

7:30 PM TO 8:30 PM

8:30 PM TO 9:30 PM

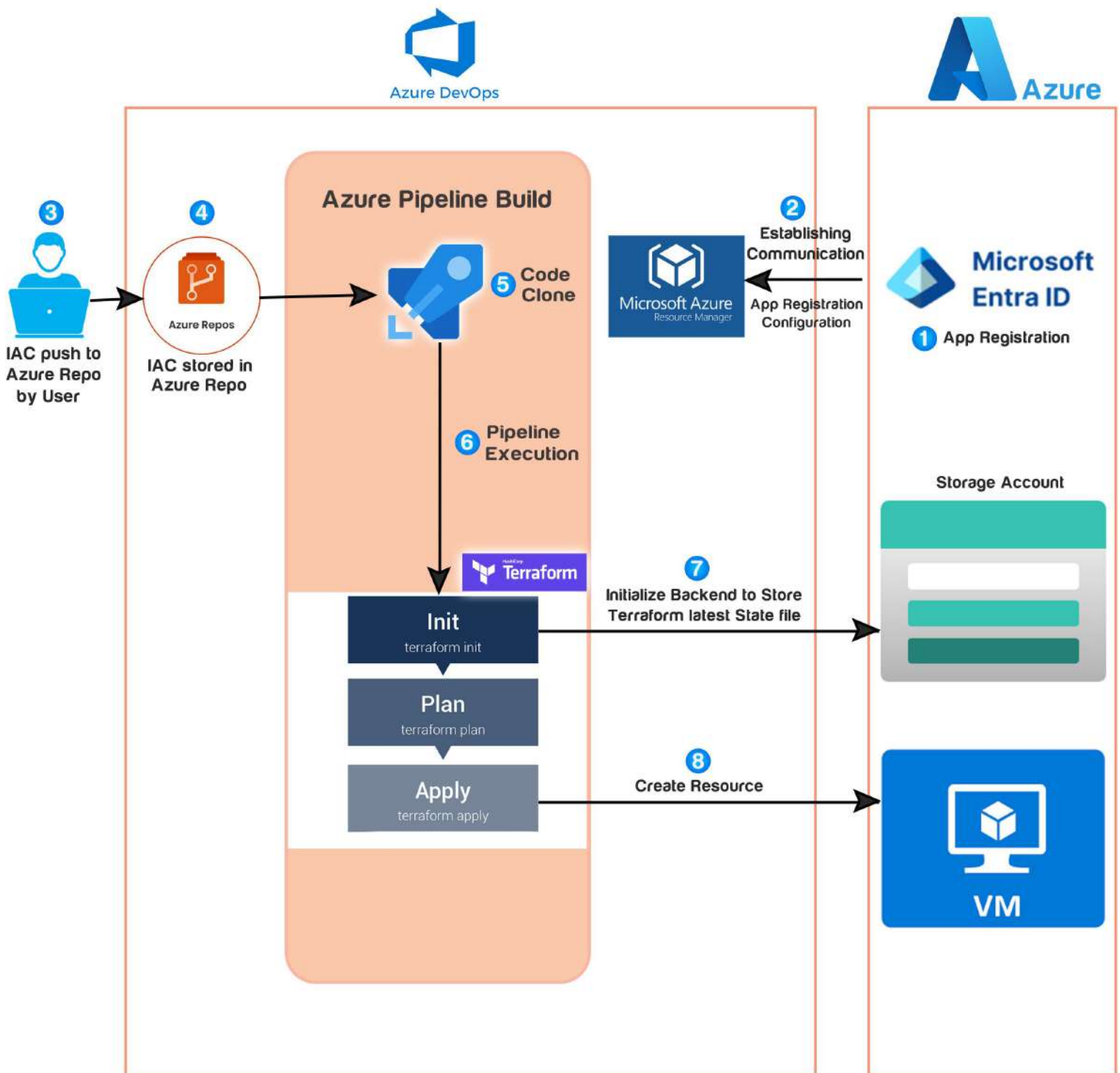
COURSE FEE:

₹ 25,000/-



Visit us: 1865, 8th Cross Road
Marathahalli, Bengaluru, Karnataka, 560037

Real Time Projects



Cloud Computing

- ✓ Introduction of Cloud Computing
- ✓ Traditional IT Infrastructure
- ✓ Cloud Infrastructure and Cloud Advantage
- ✓ Cloud Segments: IaaS, PaaS, SaaS
- ✓ Cloud Deployment Models (Public, Private, Hybrid, MultiCloud)
- ✓ Cloud Providers (Azure, AWS)

Azure Basic concepts

- ✓ Azure Portal overview
- ✓ Azure environment and services
- ✓ Azure access management
- ✓ Azure Subscriptions
- ✓ Azure Resource Groups

Azure Virtual Machines (VM)

- ✓ VM configuration
- ✓ VM Disk
- ✓ VM login method and installing dependences
- ✓ VM Networking details
- ✓ About VM access management
- ✓ Virtual Machine Scale Sets
- ✓ VM Integration with azure DevOps pipeline

Azure Virtual Network

- ✓ Vnet introduction
- ✓ Vnet configuration
- ✓ Subnet creation
- ✓ Network security groups
- ✓ Availability Zones
- ✓ Vnet endpoints
- ✓ Vnet setup for Databricks
- ✓ Public subnet and private subnet setup
- ✓ NAT gate way setup

Azure Storage Account

- ✓ Introduction of storage account
- ✓ Creating a Storage Account
- ✓ Storage Account types
- ✓ Working with Blob Storage
- ✓ About Container storage
- ✓ Access control IAM
- ✓ Enable diagnostic settings for storage account
- ✓ Private end point configuration for storage account
- ✓ Storage account encryption types
- ✓ Enable encryption using Key vault
- ✓ Activity logs

Azure Databricks

- ✓ Introduction of storage account
- ✓ About Community edition Databricks
- ✓ Azure Databricks workspace
- ✓ Databricks cluster configuration
- ✓ Databricks Notebooks
- ✓ About types for Notebooks
- ✓ Databricks Cluster policies
- ✓ Databricks Auto scaling
- ✓ Databricks Event logs
- ✓ Databricks Access management

Azure Key Vault

- ✓ Key vault introduction
- ✓ About Key
- ✓ About Secret
- ✓ Enable key vault for storage account
- ✓ Enable Diagnostics settings for key vault
- ✓ Azure Devops sensitive data with secrets
- ✓ Key vault events

Azure Active Directory

- ✓ Azure AD configuration
- ✓ User management
- ✓ Group management
- ✓ Azure App registration
- ✓ Roles and administrators
- ✓ Certificates & secrets

AKS (Azure Kubernetes service)

- ✓ Azure AKS cluster setup
- ✓ AKS Cluster configuration and access details.
- ✓ AKS Cluster Integration with Jenkins CI-CD process
- ✓ AKS Application Deployment
- ✓ AKS services
- ✓ Azure Internal Load balancers
- ✓ AKS access control IAM
- ✓ AKS networking

Azure Cost Optimization

- ✓ Manual Start/Stop VM
- ✓ Scheduled Start/Stop VM through Logic Apps
- ✓ SKU scaling up and down

Azure DevOps

Azure Devops Pipeline

- ✓ Azure Devops Introduction
- ✓ Azure CI Pipeline Introduction
- ✓ Azure CD Pipeline Introduction
- ✓ Azure Devops functionalities
- ✓ Azure Devops organization and Project

Agile methodology with Azure Boards

- ✓ Introduction About Agile process
- ✓ Sprints
- ✓ Daily scrum process
- ✓ User stories
- ✓ User tasks
- ✓ Sprint planning session
- ✓ Sprint Review session
- ✓ Release management
- ✓ Release strategy (PROD, DEV, UAT)

Azure Repos

- ✓ Introduction about Azure repos
- ✓ Pull requests
- ✓ Branching in Azure repos
- ✓ Azure Repos integration with Azure Devops pipeline
- ✓ Development Branch
- ✓ Release branch
- ✓ Bug fixing branch
- ✓ Merging and merge conflicts

Azure Devops Classic Pipeline

- ✓ Introduction about Classic pipeline
- ✓ Classic pipeline features
- ✓ Classic pipeline setup using pipeline
- ✓ Classic pipeline stages
- ✓ Azure Devops end to end pipeline setup with all stages

Azure Devops Yaml Based pipeline

- ✓ Introduction About Yaml based pipeline
- ✓ Build and deploy with all the stages using yaml pipeline
- ✓ Adding stages for yaml pipeline
- ✓ Cloning the repository
- ✓ Building the artifacts

- ✓ Checking code quality
- ✓ Create package and upload to registry
- ✓ Deployment in to AKS cluster
- ✓ Deployment process for PROD,Dev,UAT environment pipeline

Azure Devops Project settings

- ✓ Self-hosted Agents
- ✓ Agent Pools
- ✓ Variables
- ✓ Service connections
- ✓ Git hub integration with azure Devops using Service connections

DevOps Essentials

- ✓ What is DevOps?
- ✓ SDLC Models and Methodologies
- ✓ Waterfall Vs Agile and LEAN
- ✓ What is CI/CD
- ✓ CI/CD workflow
- ✓ DevOps Ecosystem/Tools

GIT

- ✓ SCM Introduction and types of SCM tools
- ✓ Difference between GIT and Github
- ✓ Git Repository
- ✓ Git life cycle
- ✓ Git commands
- ✓ How to pull and push the changes from Git repository
- ✓ Git Pull Request
- ✓ Git Merging
- ✓ Git Merge Conflicts
- ✓ Integrate Git with Jenkins
- ✓ Branching strategy
- ✓ Real time project issues while doing the merging
- ✓ Webhook integrate with Jenkins and automate build process.

Jenkins

- ✓ Jenkins Introduction
- ✓ Introduction and setup Jenkins slaves
- ✓ Jenkins Plugins setup
- ✓ Jenkins automation build
- ✓ Jenkins Authentication
- ✓ CI/CD pipeline setup
- ✓ Jenkins file introduction
- ✓ Groovy basics
- ✓ Jenkins file for Stage, QA, UAT environment
- ✓ Jenkins file for Production environment
- ✓ Jenkins integration with AWS Servers
- ✓ Jenkins integration with S3 buckets
- ✓ Jenkins integration with EC2 instances
- ✓ Jenkins Integration with Ansible

Maven

- ✓ Maven Introduction
- ✓ Maven Installation
- ✓ Maven repositories
- ✓ Maven lifecycle
- ✓ Maven Pom.xml structure
- ✓ Maven dependency management
- ✓ Maven integration with Jenkins

ANSIBLE

- ✓ Ansible introduction and Installation.
- ✓ Playbook structure and workflow.
- ✓ Ansible Roles.
- ✓ Ansible Inventory file
- ✓ Ansible playbook for creating EC2 instance.
- ✓ Ansible playbook for launch three ec2 instances with three availability zones.
- ✓ Ansible playbook for install Java, Maven, Git
- ✓ Ansible playbook for new Jenkins slave creation and install packages.

- ✓ Ansible playbook for VPC creation.
- ✓ Ansible playbook for install package in remote servers using Jenkins
- ✓ Ansible playbook for install package in remote servers using jenkins.
- ✓ Ansible integration with Jenkins.
- ✓ Ansible modules.
- ✓ InstallpackagesinremoteEC2instancesfromansibleserver.
- ✓ Ansible playbook for Jenkins setup.
- ✓ Ansible playbook for run yum modules and Conda modules and pip modules

Nexus

- ✓ Implementation of nexus in centos
- ✓ Nexus repository types
- ✓ Nexus Integration with Maven pom.xml
- ✓ Nexus Integration with Jenkins
- ✓ Pushing the packages from Jenkins to Nexus Artifactory

Docker

- ✓ Docker introduction
- ✓ Virtualization Vs Containerization
- ✓ Docker Architecture
- ✓ Docker Image
- ✓ Docker Container
- ✓ Docker Registry
- ✓ Docker File
- ✓ Docker file instructions
- ✓ Pull and push images from Docker Hub
- ✓ Real time Jenkins CI/CD with Docker file

Kubernetes

- ✓ Kubernetes introduction
- ✓ Kubernetes setup
- ✓ Kubernetes Architecture

- ✓ Kubernetes Master and worker setup
- ✓ POD Introduction
- ✓ POD creation
- ✓ Replica set
- ✓ Deployments
- ✓ Load Balancer service
- ✓ Services
- ✓ Config maps
- ✓ Kubernetes integration with Jenkins
- ✓ Kubernetes integration with Jenkins CI/CD Pipeline
- ✓ Introduction to YAML and JSON formats
- ✓ Kubernetes integration with Azure DevOps Pipeline

SonarQube

- ✓ SonarQube Introduction
- ✓ SonarQube setup
- ✓ Sonar Scanner
- ✓ SonarQube rules
- ✓ SonarQube integrate with Jenkins
- ✓ SonarQube integrate with Jenkins CI/CD Pipeline
- ✓ SKU scaling up and down

MONITORING TOOLS

Container Management Monitoring tools

Portainer.io

- ✓ Portainer.io Introduction
- ✓ Portainer.io Installation in Docker and Kubernetes
- ✓ Monitoring docker containers using Portainer.io
- ✓ Monitoring Kubernetes Pods using Portainer.io
- ✓ Checking Jenkins logs using Portainer.io
- ✓ Checking external application logs like Jupyter hub application

SEARCH, ANALYZE & VISUALIZE

ELK

- ✓ Elastic search setup
- ✓ Elasticsearch features
- ✓ Elasticsearch file
- ✓ Configuration
- ✓ Elasticsearch configuration
- ✓ Log stash setup
- ✓ Kibana setup
- ✓ Kibana.yml file settings

AWS (Amazon Web Services)

IAM

- ✓ Users management
- ✓ Groups management
- ✓ Policy management
- ✓ Roles
- ✓ MFA

EC2

- ✓ EC2 instance creation
- ✓ AMI
- ✓ Elastic IP
- ✓ Volumes
- ✓ Load balancers
- ✓ ELB
- ✓ ALB
- ✓ NLB
- ✓ Autoscaling

S3

- ✓ S3 bucket
- ✓ S3 lifecycle

- ✓ s3 versioning
- ✓ S3 encryption with KMS
- ✓ S3 bucket permissions
- ✓ Bucket policy
- ✓ Restricting s3 bucket to specific user

VPC

- ✓ VPC creation
- ✓ CIDR
- ✓ Public Subnet
- ✓ Private Subnet
- ✓ Routing table
- ✓ NAT gateway
- ✓ IGW
- ✓ Elastic IP

Infrastructure As Code

Cloud Formation Template

- ✓ Stack Creation
- ✓ Stack Set Creation
- ✓ Cloud formation template for EC2 instance creation
- ✓ Cloud formation template for S3 bucket creation
- ✓ Cloud formation template for VPC creation

Terraform for Azure

- ✓ Terraform for Azure storage account
- ✓ Terraform for Azure storage account Private end point creation
- ✓ Terraform for Databricks Cluster creation
- ✓ Terraform for Databricks Workspace creation
- ✓ Terraform for Key vault Creation
- ✓ Terraform for VM creation
- ✓ Terraform for VNET Creation with Subnets
- ✓ Terraform AKS Cluster Creation

Terraform Modules of Azure Services

- ✓ Terraform Modules for Azure Services
- ✓ Azure Storage Account Private End Point Creation
- ✓ Databricks Cluster creation
- ✓ Databricks Workspace Creation
- ✓ Key Vault Creation
- ✓ Enable Private Endpoint for Storage Account Creation
- ✓ VM Creation
- ✓ VNET
- ✓ AKS Cluster

Terraform for AWS Services

- ✓ Terraform introduction and setup Linux and windows
- ✓ Terraform for IAM user creation and group creation, attach user to group
- ✓ Terraform for create policy and attach policy to user
- ✓ Terraform for EC2 instance creation
- ✓ Create terraform for launch three ec2 instances with three availability zones.
- ✓ Terraform for load balancer creation ELB.
- ✓ Terraform for load balancer creation ALB.
- ✓ Terraform for s3bucket creation.
- ✓ Terraform for S3 bucket creation with versioning.
- ✓ Terraform for create S3bucket with Encryption Kms.
- ✓ Terraform for create S3bucket and restrict specific user should be access.
- ✓ Terraform for VPC Creation.
- ✓ Terraform for public subnet and private subnet creation.
- ✓ Terraform for create GW and NAT gate way.
- ✓ Terraform for attach IGW to public subnet.
- ✓ Terraform for attach NAT gateway to private subnet.
- ✓ Terraform for create routing table and attach to IGW and NAT.
- ✓ Terraform for EC2 instance creation with newly created VPC.
- ✓ Terraform for EC2 instance creation with add security group with allow all traffic
- ✓ Terraform for Keypair creation

Terraform Modules of AWS Services

Terraform Modules for

- ✓ VPC
- ✓ EC2
- ✓ EKS
- ✓ S3
- ✓ IAM