FLOXUS

CLOUD COMPUTING AND AZURE ADMINISTRATION

Time Duration-60 Hrs

Prerequisites-No prerequisites

The course is divided into two units. In the first unit, basics of cloud computing will be covered in second unit azure administration will be covered in great details.

Certification-
Microsoft Certified Azure Fundamentals

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UNIT: 1

MODULE 1

- What is Cloud
- History of Cloud Computing
- How Cloud Computing Works
- Advantages & Disadvantages
- Applications for Businesses
- Cloud Service Providers
- Cloud Computing Architecture
- Cloud Computing Terminology

MODULE 2

Basics of Linux

- Basics Commands
- Apache Server
- FTP Server

Windows Server Basics

- IIS
- FTP Server
- Taking backups using command line tools

MODULE 3

- Public Cloud Services – using Amazon Cloud
- Types, Priced and open source products in the market
- Overview of Public Cloud vendors
- Overview of Private cloud products
- Introduction to Amazon AWS cloud – Pricing, Regions Availability Zones, Types of instances
- Overview of different services of AWS
- Consuming EC2 Instance Service from AWS
- (Creating Linux and Windows Instances from the available AMIs connecting and remote control from the laptop)
- Consuming EBS block storage service from AWS – Adding volumes to Instances Taking snapshots, creating volumes from snapshots, attaching volumes to running instances
- Using Elastic IP service –Assigning Public IP addresses and connecting from the internet

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MODULE 4

- Installing additional software components on the instances
- Automating installations and tasks at the booting time of a instance
- Using the Load Balancers for load distribution
- Installing command line tools
- Using cloud watch service
- Using Route 53 Service
- Creating own AMIs

MODULE 5

- Virtual Private Cloud - Public and Private Network Scenarios
- Using AWS S3 service
- Using Glacier Services

MODULE 6

- Creating databases using RDS service
- IAM –Identity Access Management
- MFA
- Elastic Beanstalk
- Cloud Watch

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UNIT: 2

MODULE 0: BASIC NETWORKING

Introduction to Networking
IP Addressing
CIDR
Protocols

MODULE 1: INTRODUCTION MICROSOFT AZURE

Why Cloud Computing?
What is Cloud Computing?
History of Cloud Computing
Service Models
Deployment Models
Cloud Providers

MODULE 2: INTRODUCTION MICROSOFT AZURE

Why Azure?
Introduction to Microsoft Azure
Regions and Availability Zones
Azure portal and cloud shell
Azure PowerShell and CLI
Resource Manager
ARM Templates

MODULE 3: WORKING WITH VIRTUAL MACHINES

Virtual Machines Planning
Creating Virtual Machines
Virtual Machines Availability
Virtual Machines Extensions

MODULE 4: AZURE STORAGE

Storage Account
Blob Storage
Azure Files
Snapshots

MODULE 5: VIRTUAL NETWORKS

Virtual Networks (Vnet)
IP Address
Azure DNS
Network Security Groups (NSG)

MODULE 6: INTER-SITE CONNECTIVITY

VNet Peering
VNet to VNet Connections
Express Route
Custom Routes
Azure Load Balancer
Azure Autoscaling (Sets)
Azure Traffic Manager

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MODULE 7: APPLICATION SERVICES

App Service Plans
App Service
(Web App, Mobile App, Push App)
Azure SQL Server
Web Jobs
Cross Platform Application
Containers
Docker
Kubernetes

MODULE 8: AZURE MONITORING

Azure Monitoring
Azure Alerts
Network Watcher

MODULE 9: DATA PROTECTION

Data Replication Types
Azure Data Backup
Azure Virtual Machine Backup

MODULE 10: AZURE ACTIVE DIRECTORY

What is Azure Active Directory
Azure AD Connect
Azure AD Join
Multi Factor Authentication
Azure Identity Protection

MODULE 11: GOVERNANCE AND COMPLIANCE

Subscription and Account
Azure Users and Groups
Role Based Access Control (RBAC)
Azure Policy
Azure Management Group

MODULE 12: DATA SERVICES

CDN (Streaming)
Azure File Sync
Data Box Type