**AWS Training Overview**

This Instructor-led comprehensive AWS Training( **AWS Solutions Architect – Associate and Sysops  Administrator** ) designed to show how to setup and run [Cloud Services](http://13.235.101.185/cloud-computing-using-windows-azure/) in Amazon Web Services (AWS) all the way through to IaaS with hands-on experience on AWS Public cloud.

This course provides a strong foundation for implementing and designing cloud services.

**AWS Training Objectives**

* Compute (EC2)
* Storage (S3, EBS, EFS, Storage Gateway and Snowball)
* Database (RDS, DMS and Redshift)
* Network and Content Delivery (Route 53, VPC and Cloud Front)
* Management Tools (Cloud Watch, Cloud Formation and Cloud Trail)
* Security & Identity Compliance (IAM, Trusted Advisor, Config andInspector)
* Application Services (SWF and Elastic Transcoder)
* Messaging (SNS, SQS and SES)
* Developer tools (Code Commit, Code Build, Code Deploy and Code Pipeline)

**AWS Training Prerequisites**

* Absolute Beginners. No prior [AWS](http://13.235.101.185/aws-training/) experience is necessary
* Previous System Administration/ Development knowledge would be added advantage
* System Administrators Interested in Deploying Applications on AWS
* Cloud Computing Enthusiasts

**AWS System Requirements**

* Need to set up an AWS Account
* (Most of the Services comes with AWS free tier eligibility)
* **Windows:** Putty, Putty KeyGen and Web Browser with Internet connectivity.
* **Linux/Mac :**Default Terminal

**Introduction to Cloud Computing**

* Introduction to cloud computing
* Essential Characteristics of Cloud Computing
* Service Models in Cloud computing
* Deployment models in Cloud Computing
* Introduction to AWS
* AWS Account creation &free tier limitations overview

**Identity Access Management**

* Root Account Vs IAM user
* Multi-FactorAuthentication for Users
* IAM Password Policies
* Creating Customer Managed Policies.
* Groups
* Roles

**Glacier Storage**

* What is Simple Storage Service (S3)
* Storage Classes
* Versioning
* Cross-region replication
* Life Cycle Management
* Security & Encryption
* Static Webhosting with S3 bucket
* Events configuration on S3 buckets
* Enabling cross-account access for S3
* S3 Data management and backup using 3rd Party applications.
* S3 Cross-Account Access and Pre-Signed URLs
* Storage Gateway

**Linux Introduction**

* Basics of Linux for AWS
* Linux Installation and Basic commands overview
* Web Server and Services Configurations

**Compute**

* EC2 Instance Launch Wizard
* EC2 Instance Types
* Generating custom Public Key and Private keys for EC2 instances
* Security groups
* Volumes and Snapshots
* Creating customized Amazon Machine Images
* RAID Overview and RAID Configurations
* User Data and Metadata
* ElasticLoad Balancers & Health Checks
* Auto Scaling Groups
* CloudWatch
* Creating Billing Alarm and EC2 instance alarms.
* AWS CLI&EC2 Roles
* Elastic File System
* AWS Lightsail
* Elastic Beanstalk
* Placement Groups

**Route 53**

* DNS Records overview
* Routing Policies
* Hosting sample Website and configuring Policies
* Simple Routing Policy
* Latency Routing Policy
* Failover Routing Policy
* Weighted Routing Policy
* Geolocation Routing Policy.

**Databases**

* Launching a RDS  Instances (MySQL, MSSQL & Aurora)
* Multi-AZ & Read Replicas for RDS instances
* DynamoDB
* Redshift
* Elastichache
* Database Migration Service and Schema conversion tool

**VPC (Virtual Private Cloud)**

* Networking Basics
* Creating custom VPCs and custom Subnets
* Network ACL’s
* Route Tables & IGW
* VPC Peering
* Flow log creation
* VPN Configuration with AWS (OpenVPN)

**Security Options**

* CloudTrail
* AWS Config
* Key Management Services
* AWS Certificate Manager
* AWS Inspector
* AWS Trusted Advisor
* Content Delivery Networks / CloudFront

**Application Services**

* Simple Email Service
* Simple Queue Service
* Simple Workflow Service
* Simple Notification Service
* SMS – Server Migration Service
* Migrating server from on-premises to cloud
* Cloud Formation
* Directory Services and Adding EC2 instance to Domain
* AWS TCO Calculator and Simple Monthly calculator

**DevOps Tools Overview**

* What is DevOps in Cloud
* Code Pipeline
* Code Commit, Code Build
* Code Deploy
* Lambda

**Monitoring Tools**

* Creating Custom Metrics with CloudWatch

**Amazon White Papers review**

* Security
* Reliability
* Performance Efficiency
* Cost Optimization
* Operational Excellence