PSK TECHNOLOGIES PVT. LTD.

**Web Development & Training ,Sales & Services**

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## **AWS Classes in Nagpur**

**Module-1:  AWS Account Basics of Cloud Computing – 3 HRS**

* What is cloud computing?
* Introduction to AWS
* Global Infrastructure of AWS
* AWS Services Walkthrough-HighLeve
* AWS Benchmarks
* AWS Account Creation
* Management Console Walkthrough
* Basic Account Management Setting
* Introduction to Billing Dashboard & Cost Explorer
* Setting up Billing Alarm & Budget

**Module 2 – AWS-IAM Basics of Authentication & Autherisations – 3 HRS**

Introduction to Identity & Access Management

Components of IAM

Creating and Managing Users & Groups

Creating and Managing IAM Policies

Roles and its use cases

Multi-Factor Authentication – [MFA]

Security Features in IAM

Best Practices of IAM

**Module 3 – AWS-CLI Intorduction to AWS CLI – 2 HRS**

Setting-Up AWS CLI on local machine

Creating Users and groups using AWS CLI

Creating & Managing Policy using AWS CLI

Creating and Managing IAM Roles using AWS CLI

AWS CLI Command Syntex walkthrough

**Module 4 – AWS-S3 Basics of Storage System – 05 HRS**

Storage Services provided by AWS

Difference Between Object storage and Block Storage

Introduction to Simple Storage Service – S3

Use Case & Benefits of using S3

Components of S3

Important Properties of S3 bucket

Enabling and Managing Versioning on S3 bucket

Managing Logging on S3 Bucket

Creating Life-Cycle Management Rule S3

Hosting a static-website in S3

Cross-Region replication in S3

Transfer Accelerator in S3

MFA and Pre-signed URL in S3

Seccurity feature of S3-Encryption,Buclet Policy, Permission etc.

Snowball – Types & Use Cases

Managing S3 components using CLI Commands

**Module-5 – AWS-EC2 Basics of Virtual Servers – 04 HRS**

Components of a Virtual Server

Introduction to Elastic Cloud Compute – EC2

Use cases and important features of EC2

Introduction to AMI – Its Uses

Introduction to Instance and its types

Security Groups – Creation & Management

Key Pair – Why & How

Launching & Connecting to Window Instance

Launching & Connecting to Linux Instance

Setting up a web server on linux Instnace – Hosting a website

Elastic IP Address

Placement Group

**Module-6 – AWS-EFS Introduction to File System Sotrage 02 HRS**

* Understanding Use Cases
* Introduction to Elastic File System – EFS
* Configuration of EFS
* Creating and using EFS with Multiple EC2 Instances
* Troubleshooting in EFS

**Module-6 –AWS-LB Introduction to Load Balancer 01 HRS**

* Types of Load Balancer in AWS
* Use Cases of Load balancers
* Important Components of Load Balancer
* How Health-Check Works for Load Balancer
* Configuration of a load balancer and its management
* Pricing – Load balancer
* Limitations and Best Practice of Using Load Balancer

**Module-7 –AWS-AS Introduction to AutoScaling 03 HRS**

* Use Cases of Autoscaling
* Important Components of AutoScaling
* Configuration of Autoscaling
* Launch Configuration and LB Group
* Pricing
* Limitation and Best Practice of AutoScaling

**Module-8 –AWS-VPC Basics of Networking 05 HRS HRS**

* IP Address and CIDR Block
* Concept of Virtual Cloud – Private
* Introduction to Virtual Private Cloud -VPC
* Subnet and Route Tables
* Internet Gatewayand NAT
* Creating and managing a NAT Instance
* Network Interface – NI
* Access Control List – ACL
* VPC Peering
* Endpoints
* VPN and CGW

**Module-9 –AWS-Route53 Introduction to DNS 02 HRS**

* Introduction to Route53
* How Route53 Works
* Domain Regiration in Route53
* Health Checks in Route53
* Routing Policies in Route53
* Creating and Managing different Routing Policies
* Records Sets supported by Route53
* Alerms and Notifications in Route53
* Limitations & Best Practices in Route53
* Pricing – Route53

**Module-10 –AWS-CloudWatch Introduction to CloudWatch** 01 HRS

* Important Components of CloudWatch
* Creating and Managing metrics in CloudWatch
* Creating and managing Events in CloudWatch
* Creating and Managing Dashboards in Cloudwatch
* Creating and managing Alarms in CloudWatch
* Logs and Log agent in Cloudwatch
* Pricing in CloudWatch
* Limitations and Best Practices – CloudWatch

**Module-11 –AWS-CFN Inrtoduction to CloudFormation-CFN 01 HRS**

* Important Components of CFN
* Templates and its components
* Creating and Managing stack
* Creating template using template designer
* Launching WordPress site using CFN template
* Designing Simple template to launch EC2 Instance
* Pricing in CFN
* Advance uses of CFN
* Limitations and Best Practice of CFN

**Module-12 –AWS-LAMBDA Intorduction to Lambda 02 HRS**

* Important Components of Lambda
* Creating simple function in Lambda
* Creating and Managing triggers in Lambda
* Sample Code run using Lambda
* Limitations & Best Practice of Lambda

**Module-13 –AWS-RDS Introduction to Database – Its Components 02 HRS 01 HR**

* Database Services provided by AWS
* Introductino to RDS
* Components of RDS
* DB engines provided by RDS
* Snapshots and Back-up in RDS
* Read Replicas in RDS
* Creating and connecting to a RDS database
* RDS Security Groups
* Pricing in RDS
* Limitations and Best Practice – RDS

**Module-14 –AWS-DynamoDB Introduction to NoSQL Database 01 HRS 1/2 HRS**

* Difference between SQL and NoSQL
* Components of DynamoDB
* AutoScaling in DynamoDB
* DynamoDB Streams
* Indexing in DynamoDB
* Data Distribution in DynamoDB
* Backup and Monitoring in DynamoDB
* Creating Table and loading data into DynamoDB
* Pricing in DynamoDB
* Best Practices – DynamoDB

**Module-15 –AWS-RedShift Introduction to Data Warehouse 02 HRS 01 HRS**

* Difference Between OLTP and OLAP
* Components of Redshift
* Important Features of Redshift
* Architecture of Reshift
* Creating and Managing a cluster in RedShift
* Connecting to RedShift Cluster using SQL workbentch
* Creating table and loading data into RedShift
* Bach-up and monitoring in RedShift
* Data Security in RedShift
* Pricing in RedShift
* Best Practices – RedShift

**Module-16 –AWS-Kinesis Intorduction to Kinesis 01 HRS 1/2 HRS**

* Types of Data Streaming in Kinesis
* Kinesis Firehose and its Architecture
* Kinesis Analytics and its Architecture
* Builing a sample application to stream real-time data
* Pricing in Kinesis
* Best Practice in Kinesis

**Module-17 –AWS-Elastic Cache Introduction to In-Memory Cache 01 HRS**

* Important Components of Elastic Cache
* Types of Engine avaialble in Elastic Cache
* Difference Between Redis and MamCache
* Benefits of Elatic Cache
* Uses Cases of Elatics Cache
* Pricing for Elatic cache
* Best Practice – Elastic Cache

**Module-18 –AWS-SQS Introduction to Simple Queing Service 1/2 HRS**

* How SQS Works – Architecrual Walkthorugh
* Important Components of SQS
* Pricing in SQS
* Best Practice – SQS

**Module-19 –AWS-SNS Intorduction to Simple Notification Service – SNS 1/2 HRS 1/2 HRS**

* How SNS Works ?
* Important Components of SNS
* Creating and Manging Topics in SNS
* Adding Subscriber in SNS
* Managing SNS Policy
* Pricing in SNS

**Module-20–AWS-SWS Introduction to Simple Workflow Service 01 HRS**

* Components of SWS
* How SWS Works – Use case Discussion
* Benfits of using SWS
* Limitations and Best Practice – SWS
* Pricing in SWS

**Module-21–AWS-EB Introduction to Elastic Beanstalk 01 HRS**

* Important Concepts in EB
* Managing Environments in EB
* Managing Applications in EB
* EB Platforms
* Getting started with EB
* Pricing in EB

**Module-22–AWS-API Gateway Introduction to API Gateway 1/2 HRS**

* How API Gateway Works
* Why Should we use API Gateway
* Pricing in API Gateway
* Use Case Discussion

**Module-23–AWS-EMR Introduction to EMR 01 HRS 1/2 HRS**

* How EMR Works?
* How can You use EMR?
* Why Shouldwe use EMR?
* Use Case Discussion
* Pricing in EMR

**Module-24–AWS-CodeDeploy Introduction to CodeDeploy 01 HRS**

* How CodeDeploy Works?
* Benefits of Using CodeDeploy
* Pricing in CodeDeploy
* Use Case Discussion

**Module-25–AWS-WorkSpace Introduction to WorkSpcae 01 HR**

* Benefits of using Workspace
* Pricing in WorkSpace
* Use Case Discussion- WorkSpcae
* Launching a private Workspace