



Cloud Computing Syllabus

Sr. No.	Topic
1.	Introduction to Networking and Servers, Introduction to cloud computing
2.	AWS - AWS Definitions, AWS Services, Introduction to Console access and CLI access.
3.	EC2 Introduction- Instance Lifecycle, Reserved Instances, On Demand Instances, Description about AMI and Types. LAB- EC2 Instance Creation (Linux) Session
4.	Installation of web services in AWS EC2, Introduction about Lambda Service LAB- EC2 Instance Creation (Windows)
5.	Amazon EBS – Storage levels, Configuration for creating volume LAB- EBS
6.	Snapshots & its configuration, mounting the volumes. LAB- EBS Snapshot
7.	Amazon Simple Storage Service- S3 Storage Elements, Data Consistency Model, S3 Storage classes, S3 Operation. LAB- S3 Bucket Creation and Uploading Objects
8.	S3 Namespace structure, Protecting data in Amazon S3, Bucket properties, Access control, Cross region replication, REST And SOAP Interfaces, Multipart Upload. LAB- S3 Bucket Properties
9.	Amazon Glacier LAB- Vault Creation and uploading objects
10.	Amazon CloudWatch LAB- Cloud Watch and Alarm
11.	Elastic Load Balancer , LAB-ELB
12.	Auto Scaling, Scaling based on policy configuration. LAB- Autoscaling
13.	Amazon VPC, VPC Architecture LAB- VPC Architecture (Public)
14.	VPC Security



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	LAB- VPC Architecture (Public and Private)
15.	Route 53 LAB- Route53 configurations
16.	Identity & Access Management (IAM) LAB-IAM Configuration
17.	Relational Database Service – RDS LAB- Working with Mysql and PostgreSql
18.	Redshift- Clusters and Nodes, Loading and Querying Data. LAB- Redshift configuration
19.	DynamoDB – Data Model, Scaling and Partitioning, DynamoDB Streams. LAB- DynamoDB Configuration
20.	Amazon Web services –CloudFront, Cloud trail, SES, Import/export, Cloud formation, Direct connect. LAB- CloudFront and SES
21.	Storage gateway, Opsworks, Elastic beanstalk, Elastic Cache. LAB- Elastic Cache
22.	SQS - Delay Queues and Visibility Timeouts, Long Polling, Dead Letter Queues. LAB- SQS
23.	SWF – Workflows, Task Lists , Workflow Execution Closure, Lifecycle of a Workflow Execution. LAB- SWF Configuration
24.	SNS - Common Amazon SNS Scenarios. LAB- SNS Configuration
25.	ElasticCache - Cache Engines, Memcached and Redis. LAB- ElasticCache Configuration
26.	Cloud Architecture & Design, Architecture Best Practice
27.	Security on AWS - Global Infrastructure Security, Account Security Features, Service-Specific Security
28.	AWS Risk and Compliance and Case Study