Sherdil IT Academy

AWS 3in1 Course

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Course Content(s)

S.No	Topics	Training Method
1.	Course & Exam Introduction ● Overview of AWS course ● Overview of AWS Exam ● Certification Roadmap	Theory
2.	AWS Regions & Availability Zone ● Global footprint ● Regions & Availability Zones ● Edge locations ● Regional & local edge cache	Theory
3.	Introduction to Cloud Computing (Types, Categories & Features)	Theory
4.	AWS Services Overview (165+ Services)	Theory
5.	Virtual Private Cloud Deep dive ● CIDR Blocks ● Subnets ● Network ACL ● Route & Route tables ● Internet Gateway (IGW) ● NAT Gateway ● VPC Peering ● Security groups ● S3 Endpoint ● Traffic Mirroring ● VPC Flow log	Theory / Hands On Lab
6.	Trusted Advisor ● Understand the categories ● Core checks ● Support plan ● How to use AWS trusted advisor	Theory / Hands On Lab
7.	AWS CloudTrail ● About the cloudtrail ● Trail history ● Verify user & service audit using cloudtrail events ● Create & configure trail with S3 bucket ● Cloudtrail Encryption	Theory / Hands On Lab

8.	Identity & Access Management (IAM) ● About authentication & authorization ● IAM Users, Roles & Policies ● Creation of Users, Groups, Roles & Policies ● AWS & custom managed IAM Policies ● Fine grained Policy verification on IAM users ● MultiFactor Authentication (MFA) ● Creation of JSON based custom Policies & testing ● KMS encryption configuration & implementation ● Identity Provider (IDP) & SAML 2.0 Configuration	Theory / Hands On Lab
9.	Simple Storage Service ● Create & configure S3 bucket & upload/drag objects ● Bucket versioning & encryption ● Deploy a static website on S3 bucket ● Storage classes ● Lifecycle policies ● Bucket policies (JSON) ● Bucket ACL ● Tagging ● Object Lock ● Cross Region Replication (CRR) ● Cross Origin Resource Sharing (CORS)	Theory / Hands On Lab
10.	AWS CloudFront ● About CDN & CloudFront service ● Using of cloud front with origin location like S3 bucket ● Configure S3 based static website with cloudfront ● Verify the cloudfront configuration after CDN deployment	Theory / Hands On Lab
11.	AWS CloudWatch ● About the usage of CloudWatch ● Working with metric Namespace, Dimension,metric, timestamp & units ● Dashboard, Events, Logs & Alarm ● Create & configure alarm with SNS based Email & SMS alerts	Theory / Hands On Lab
12.	AWS Elastic Compute Cloud (EC2) ● About the usage of EC2 ● Types & categories of EC2 ● On demand, Spot, reserved & scheduled Instances ● AMI, templates & snapshots ● Provisioning of EC2 based WIndows & linux Instances ● Bastion Host & Nat Gateway ● Key pairs & Security groups with port based rules ● Server accessibility using RDP & SSH connection ● Instance templates ● Usage of Internet Gateway & NAT Gateway with EC2 ● Instance termination protection ● Using of Instance profile to connect with S3 bucket privately in Linux VM ● Working with Amazon Marketplace ● SSD & HDD Volume & snapshots ● Encryption at rest & in transit ● Data Lifecycle management (DLM)	Theory / Hands On Lab
13.	Elastic Load balancer & AutoScaling ● ELB & Auto scaling 10,000 Foot Overview ● Create Application Load Balancer	Theory / Hands On Lab

		● AS Launch Config & AS Group ● Create an EC2 Instance using AS Group ● Building a 2 tier architecture using ELB & AS	
14.	AWS Route53 ● Route53 & DNS Load Balancing with Route Policies ● Create DNS record	Theory / Hands On Lab
15.	AWS Simple Queue Service ● SQS Essentials ● Create Standard and FIFO Queue ● Fanning out Using SNS & SQS ● Message Polling	Theory / Hands On Lab
16.	AWS Simple Notification Service ● SNS Essentials ● Create Topic and Add Subscribers (Email & SMS) ● Configure Subscriber using SNS	Theory / Hands On Lab
17.	AWS Simple Workflow Service ● SWF Essentials	Theory
18.	AWS Lambda ● Create Lambda Function using provided code ● Test Lambda function ● Create EBS Volume and take automated snapshot using Lambda	Theory / Hands On Lab
19.	AWS DynamoDB ● Create & configure Primary (Hash) & Sort(Range) Keys. ● Modify Read Capacity Unit (RCU) & Write Capacity Unit (WCU). ● Create multiple sort keys using JSON tree ● Create & configure Local secondary Index (LSI).	Theory / Hands On Lab
20.	AWS RDS ● Create & configure Subnet Security Group. ● Create & configure MYSQL based RDS with Read replica ● Verify the connectivity using a MYSQL client.	Theory / Hands On Lab
21.	AWS Elastic BeanStalk ● Create Application environments (Dev, stage) ● Deploy sample Node.js application ● Explorer Different deployment method	Theory / Hands On Lab
22.	AWS CloudFormation ● About Infrastructure as Code (IaC) ● Create a stack using pre-write JSON code using cloud formation. ● Verify VPC & WordPress servers that were created using CloudFormation stack. ● Drift Detection	Theory / Hands On Lab
23.	AWS CICD ● Code Start, Code Commit, Code Deploy, Code Build & Code Pipeline Essentials ● Deploy Sample PHP Application using Codestar	Theory / Hands On Lab
24.	AWS FSx & AWS Backup ● Create Backup Job ● Create SMB based File share using managed AD & FSX	Theory / Hands On Lab

25.	Machine Learning: ● Amazon Comprehend ● Amazon Forecast ● Amazon Fraud Detector ● Amazon Kendra ● Amazon Lex ● Amazon Polly ● Amazon Rekognition ● Amazon SageMaker ● Amazon Textract ● Amazon Transcribe ● Amazon Translate	
26.	Demo Topics ● System and Session Manager ● AWS Config ● AWS managed Active Directory ● Create ext4 Based file system using EFS ● AWS Kinesis ● Storage Gateway Essentials ● DR & BC for for AWS Services ● API Gateway	Theory / Instructor Demo
27.	AWS Cloud Computing White Papers ● Overview of Amazon Web Services ● Overview of Security Processes ● AWS Risk & Compliance Whitepaper ● Storage Options in the Cloud ● Architecting for the AWS Cloud: Best Practices ● Well Architected Framework	
28.	Final Project	
29.	Final Overview & Exam Discussion	

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