

Welcome to ineuron.ai



## AWS Architect for the Real World

### **Description:**

This Amazon AWS course will take you from AWS fundamentals to being a professional AWS cloud practitioner. From foundations to advanced topics, you will master general cloud computing principles and AWS. There are many hands-on activities that you may do with an Amazon Web Services (AWS) free tier account to gain expertise. This is the greatest approach to get started if you want to get into a high-paying profession working with cloud computing services. You'll go from beginning to advanced ideas, with lots of opportunity to put what you've learned into practise.

### **Start Date:**

### **Doubt Clear Time:**

### **Course Time:**

### **Features:**

- # Course material
- # Course resources
- # On demand recorded videos
- # Practicals in AWS
- # Course completion certificate

### **What we learn:**

- # AWS fundamentals
- # S3 buckets
- # Lambda functions
- # SES
- # API gateways
- # Load balancing
- # Migration
- # Container services
- # AWS serverless

### **Requirements:**

- # System with minimum i3 processor or better
- # At least 4 GB of RAM
- # Working internet connection
- # Dedication to learn

### **Instructor:**

#### **Name:**

Hitesh Choudhary

#### **Description:**

I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

## **>Course Intro:**

>>AWS Architect for real world

## **>Getting started with AWS and IAM:**

>>FAQ for aws architect course

>>Getting started with AWS and expectation

>>Tour of AWS console with ROOT user

>>AWS Infra - Region and AZ

>>Securing root account and MFA

>>Custom signin link for IAM

>>Why groups are created

>>Creating groups and users

>>What are roles in IAM

>>Temporary security credentials in IAM

>>Billing alarms in Cloudwatch

>>Password compliance

>>buying domain on Route 53

## **>Amazon Elastic Compute**

## **Cloud -EC2:**

- >>What is Elastic Compute
- >>Instance types and limits
- >>your first EC2 instance
- >>In depth guide for EC2 options
- >>Connecting to cloud instance
- >>Configure an AWS web server
- >>Stress testing, Cloud watch alarms and clean up
- >>What are user data scripts
- >>What is instance meta-data
- >>Docs and hands on with Elastic IP
- >>Custom network interface cards in AWS
- >>creating custom AMI
- >>Launch with custom image and clean up
- >>Placement groups - Cluster, partition and Spread
- >>EC2 pricing - OnDemand, spot and reserved
- >>Just for Exam

## **>Virtual Private Cloud - VPC:**

- >>Why you should focus more on VPC
- >>Understand the default VPC
- >>Create diagram of default VPC
- >>CIDR deep dive

- >>Your custom VPC
- >>Creating subnet in custom VPC
- >>Internet Gateway and route table
- >>Lets complete the diagram
- >>VPC DNS hostname and resolution
- >>updates from corporate in VPC structure
- >>Clean up the resources
- >>Security groups VS NACL
- >>Understand the next diagram for VPC
- >>Diagram 2 - VPC and subnets
- >>Diagram 2 - Route tables and IGW
- >>Congigure a NAT gateway
- >>SSH agent forwarding
- >>Bastion host and testing of diagram
- >>Bastion host and testing of diagram part 2
- >>NAT instance and configurations
- >>VPC peering connection
- >>What are transit gateways
- >>A use case of Endpoints in VPC
- >>preparing logs for audit - flowLogs
- >>Resources for hybrid cloud - VPN and more
- >>Lets audit the logs with Athena and Glue
- >>Egress gateway cloudhub and clean up
- >>**Load Balancing and scalability:**

- >>What are load balancers
- >>Type of Load Balancer
- >>Prep work for load balancers
- >>Configure target groups
- >>Creating an Application load balancer
- >>Path and HOST based routing on domain
- >>Cross Zone load balancer
- >>Case of Sticky session
- >>Clean up for ALB
- >>Network Load Balancer
- >>Scaling - Horizontal and Vertical
- >>Auto Scaling Group configuration
- >>Clean up for ASG resources

## **>Route 53 in Depth:**

- >>Welcome to Route 53
- >>What are hosted zone - Public and Private
- >>AWS DNS records - A and Alias
- >>Creating instance in multiple region
- >>Route 53 Health Checks
- >>Simple and weighted route policy
- >>FailOver and latency based policies
- >>Multi value and restricting content on geo location

>>Clean up for Route 53

## **>Storage in AWS - S3:**

>>lets start with AWS storage

>>Introduction to S3 buckets

>>Permissions in S3 buckets

>>Static website hosting in S3 buckets

>>S3 bucket - Versioning and encryption

>>S3 event notifications

>>Access log BILLS and requester pays

>>S3 storage class

>>Data replication - CRR and SRR

>>S3 Select, Athena and Redshift - Query

>>Data life cycle policy

>>Getting started with cloudfront and OAI

>>Setup a cloudfront and OAI for a website

## **>Storage - Block and Object:**

>>Instance Store - ephemeral

>>Types of EBS volume and IOPS

>>Creating and mounting EBS volume

>>Getting a snapshot of EBS

>>Re attach EBS volume

>>Data migration between AZ and Region

- >>RAID 0 and 1 config
- >>Creating and mounting Elastic File Storage
- >>FSx for Windows and Lustre
- >>Storage Gateway - Hybrid cloud
- >>Storage Gateway NOT by LCO

## **>Databases in AWS:**

- >>Introduction to Databases in AWS
- >>OLTP vs OLAP
- >>Production level RDS walkthrough
- >>Create a mysql db in AWS
- >>Multi AZ replica RDS
- >>Creating read replicas
- >>Read Replica VS Multi AZ deployment
- >>AWS aurora Docs walkthrough
- >>Getting started with DynamoDB
- >>Creating a table in DynamoDB
- >>Reading the DAX Docs
- >>ElasticCache memcached
- >>ElasticCache Redis and Redis cluster
- >>Redshift Overview

## **>Application integration in AWS:**

- >>Application integration services by AWS



- >>Simple queue service
- >>Creating our first queue service
- >>FIFO vs standard queue
- >>Delay, visibility and retention time
- >>Dead letter queue
- >>Long polling and short polling
- >>Attaching lambda to SQS
- >>Clean up all the sqs resources
- >>Step function and simple workflow service
- >>Amazon MQ, Rabbit MQ and other services

## **>PAAS and IAAS in AWS:**

- >>Getting started with PAAS and IAAS
- >>Cloudformation inDepth guide
- >>Beanstack application deployment

## **>Process and Migrate the Data:**

- >>Kinesis and shards
- >>Kinesis analytics and firehose
- >>What is Elastic MapReduce
- >>What is Athena, Glue and Glue Studio
- >>Import from other Virtualization Services
- >>Database Migration service and Schema Conversion Tool

## **>Security Compliance:**

>>Security and Compliance - SOX, PCI and more

>>Key Management Service

>>Hardware Security Module in Cloud

>>AWS WAF and shield service

>>Active Directory in AWS

>>What is AWS Cognito

>>AWS single sign on

>>AWS Directory service

### **>Container Service:**

>>What are container service in AWS

>>What is Docker

>>What is Elastic Container Registry

>>What are microservices

>>What is Elastic Container service

>>What is Fargate

>>What is Elastic Kubernetes Service

>>AWS walkthrough for ECS and EKS

### **>AWS Serverless:**

>>Getting started with AWS serverless

>>A common warning for AWS

>>Route 53

- >>Get Started with S3 bucket
- >>Struggle of web page hosting
- >>Hosting with policies
- >>GET vs POST and handling response
- >>Your first lambda in AWS
- >>Lambda permission and cloud watch
- >>Introducing API gateway
- >>Lambda for POST information
- >>Post Data and CORS error
- >>First look at SES
- >>New user for SES and lambda
- >>Sending email from SES and lambda