Pre-requisites:

1. AWS Cloud Practitioner Essentials: <https://www.aws.training/Details/eLearning?id=60697>
2. Introduction to EC2 Auto Scaling: <https://www.aws.training/learningobject/video?id=16387>
3. CIDR & Subnetting basics: <https://www.aws.training/learningobject/video?id=16480>
4. Subnets, Gateways, and Route Tables: <https://www.aws.training/learningobject/video?id=16490>

Self-paced labs: <https://aws.amazon.com/training/self-paced-labs/>

AWS Free Tier: <https://aws.amazon.com/free/>

Steps for Labs: <https://www.wellarchitectedlabs.com/>

Certification Paths: <https://aws.amazon.com/certification/>

**Module-wise URLs:**

What is Cloud computing?

<https://aws.amazon.com/what-is-cloud-computing/>

Brief history of AWS

<https://techcrunch.com/2016/07/02/andy-jassys-brief-history-of-the-genesis-of-aws/>

Six primary benefits of cloud computing with AWS (Video)

<https://www.youtube.com/watch?v=yMJ75k9X5_8>

<https://aws.amazon.com/application-hosting/benefits/>

Whitepapers

<https://aws.amazon.com/whitepapers/>

Data centers compliance

<https://aws.amazon.com/compliance/data-center/>

AWS Infrastructure

infrastructure.aws

CloudFront features

[https://aws.amazon.com/cloudfront/features](https://aws.amazon.com/cloudfront/features/)

AWS customer Case Studies

<https://aws.amazon.com/solutions/case-studies/>

Amazon S3 features

<https://aws.amazon.com/s3/features/>

S3 use cases:

IATA:

<https://aws.amazon.com/solutions/case-studies/iata/?did=cr_card&trk=cr_card>

Novatris uses AWS to Conduct 39 Years of Computational Chemistry In 9 Hours

<https://aws.amazon.com/solutions/case-studies/novartis/>

Complete listing of S3 use case customers

<https://aws.amazon.com/s3/customers/>

S3 Access control

<https://docs.aws.amazon.com/AmazonS3/latest/dev/access-control-overview.html>

Blog post:

<https://aws.amazon.com/blogs/aws/amazon-s3-block-public-access-another-layer-of-protection-for-your-accounts-and-buckets/>

S3 Access points

<https://aws.amazon.com/s3/features/access-points/>

S3 versioning

<https://docs.aws.amazon.com/AmazonS3/latest/dev/Versioning.html>

Object Locks

<https://docs.aws.amazon.com/AmazonS3/latest/dev/object-lock.html>

CORS

<https://docs.aws.amazon.com/AmazonS3/latest/dev/cors.html>

DataSync

<https://aws.amazon.com/datasync/>

Multi-part upload

<https://docs.aws.amazon.com/AmazonS3/latest/dev/mpuoverview.html>

S3 storage classes

<https://aws.amazon.com/s3/storage-classes/>

Snowfamily

<https://aws.amazon.com/snowball/>

<https://aws.amazon.com/snowball-edge/>

<https://aws.amazon.com/snowmobile/>

S3 pricing

<https://aws.amazon.com/s3/pricing/>

S3 Lifecycle policies

<https://docs.aws.amazon.com/AmazonS3/latest/dev/object-lifecycle-mgmt.html>

What is Amazon EC2

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/concepts.html>

Amazon AMI

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AMIs.html>

AWS Marketplace

<https://aws.amazon.com/marketplace>

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/paid-amis.html>

EC2 Image builder

<https://aws.amazon.com/image-builder/>

<https://docs.aws.amazon.com/imagebuilder/latest/userguide/what-is-image-builder.html>

Instance metadata

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-metadata.html>

EBS

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/AmazonEBS.html>

Instance Storage <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/InstanceStorage.html>

Amazon EBS volume types, see <https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSVolumeTypes.html>

Amazon EBS optimized instances

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/EBSOptimized.html>

Amazon FSX for Windows & Linux

<https://aws.amazon.com/fsx/>

EC2 Instance types

<https://aws.amazon.com/ec2/instance-types/>

**AWS Free Tier**

[**https://aws.amazon.com/free/**](https://aws.amazon.com/free/)

Savings plan

<https://aws.amazon.com/savingsplans/faq/>

EC2 pricing options

<https://aws.amazon.com/ec2/pricing/>

Dedicated Hosts

<https://aws.amazon.com/ec2/dedicated-hosts/>

Placement groups

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html>

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/placement-groups.html#change-instance-placement-group>

AWS Databases

<https://aws.amazon.com/products/databases/>

AWS ElastiCache

<https://aws.amazon.com/elasticache/>

Redis

<https://aws.amazon.com/elasticache/redis/>

Memcached

<https://aws.amazon.com/elasticache/memcached>

AWS RDS

<https://aws.amazon.com/rds/>

Amazon DynamoDB

<https://aws.amazon.com/dynamodb/>

<https://docs.aws.amazon.com/amazondynamodb/latest/developerguide/transactions.html>

DynamoDB RCU and WCU

<https://aws.amazon.com/dynamodb/pricing/provisioned/>

RDS Encryption

<https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Overview.Encryption.html>

AWS Schema Conversion Tool

<http://docs.aws.amazon.com/SchemaConversionTool/latest/userguide/Welcome.html>

AWS VPC

<https://docs.aws.amazon.com/vpc/latest/userguide/what-is-amazon-vpc.html>

VPCs & Subnets

<https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Subnets.html>

Elastic IP address:

<https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/elastic-ip-addresses-eip.html>

NAT Gateway

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-nat-gateway.html>

Internet Gateway

<https://docs.aws.amazon.com/vpc/latest/userguide/VPC_Internet_Gateway.html>

Security Group:

<https://docs.aws.amazon.com/vpc/latest/userguide/VPC_SecurityGroups.html>

Network ACL

<https://docs.aws.amazon.com/vpc/latest/userguide/vpc-network-acls.html>

Virtual Private Gateway

<https://docs.aws.amazon.com/directconnect/latest/UserGuide/virtualgateways.html>

AWS Direct Connect

<https://docs.aws.amazon.com/whitepapers/latest/aws-vpc-connectivity-options/aws-direct-connect.html>

VPC Peering

<https://docs.aws.amazon.com/vpc/latest/peering/what-is-vpc-peering.html>

AWS Transit Gateway

<https://aws.amazon.com/transit-gateway/>

VPC Endpoint

<https://docs.aws.amazon.com/vpc/latest/privatelink/vpc-endpoints.html>

<https://docs.aws.amazon.com/vpc/latest/userguide/endpoint-services-overview.html>

Load Balancers

<https://docs.aws.amazon.com/AmazonECS/latest/developerguide/load-balancer-types.html>

Amazon Route 53

<https://aws.amazon.com/route53/>

IAM

<https://aws.amazon.com/iam/features/>

Policies and Permissions

<https://docs.aws.amazon.com/IAM/latest/UserGuide/access_policies.html>

Overview of access management

<https://docs.aws.amazon.com/IAM/latest/UserGuide/introduction_access-management.html>

IAM Roles

<https://docs.aws.amazon.com/IAM/latest/UserGuide/id_roles.html>

AWS STS

<https://docs.aws.amazon.com/STS/latest/APIReference/welcome.html>

AWS Cognito

<https://aws.amazon.com/cognito/details/>

AWS Organizations

<https://aws.amazon.com/organizations/faqs/>

AWS Quick Start

<https://aws.amazon.com/quickstart/>

 AWS CloudFormation

<https://aws.amazon.com/cloudformation/>

JSON & YAML

<https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/working-with-templates-cfn-designer-json-editor.html>

AWS Systems Manager

<https://aws.amazon.com/systems-manager/>

AWS Ops Works

<https://aws.amazon.com/opsworks/>

AWS Beanstalk

<https://aws.amazon.com/elasticbeanstalk/>

Caching best practices

<https://aws.amazon.com/caching/best-practices/>

Amazon Cloudfront

<https://aws.amazon.com/cloudfront/features/?nc=sn&loc=2>

ELB Sticky sessions

<https://docs.aws.amazon.com/elasticloadbalancing/latest/classic/elb-sticky-sessions.html>

Amazon Elasticache

<https://aws.amazon.com/elasticache/>

AWS Microservices

<https://docs.aws.amazon.com/whitepapers/latest/microservices-on-aws/microservices-on-aws.html>

ECS

<https://aws.amazon.com/ecs/>

Fargate

<https://docs.aws.amazon.com/eks/latest/userguide/fargate.html>

Lambda

<https://aws.amazon.com/lambda/>

API Gateway

<https://aws.amazon.com/api-gateway/>