

1.EC2 –Elastic cloud computing

- Elastic computing cloud is a web service
- Simply ec2 is used create and manage server.
- Ec2 provides secure,resizable compute capacity in the cloud.

2.ELASTIC LOAD BALANCER:

Elastic Load Balancing automatically distributes your incoming traffic across multiple targets, such as EC2 instances, containers, and IP addresses, in one or more Availability Zones.

It monitors the health of its registered targets, and routes traffic only to the healthy targets.

3.AUTO SCALLING GROUP:

An Auto Scaling group **contains a collection of EC2 instances that are treated as a logical grouping for the purposes of automatic scaling and management.**

4.ELASTIC IP:

An Elastic IP address is a reserved public IP address that you can assign to any EC2 instance in a particular region, until you choose to release it.

To allocate an Elastic IP address to your account in a particular Region, see Allocate an Elastic IP address.

5.APPLICATION LOAD BALANCER:

A *load balancer* serves as the single point of contact for clients. Clients send requests to the load balancer, and the load balancer sends them to targets, such as EC2 instances.

To configure your load balancer, you create target groups, and then register targets with your target groups.

You also create listeners to check for connection requests from clients, and listener rules to route requests from clients to the targets in one or more target groups.

- **APPLICATION LOAD BALANCER IS MICROSERVICE ARCHITECTURE**
- **IT WORK PATH BASED ROUTING.**

6.IAM:

IDENTIFY AND ACCESS MANAGEMENT

you can specify who or what can access services and resources in AWS, centrally manage fine-grained permissions, and analyze access to refine permissions across AWS.

7.VIRTUAL PRIVATE CLOUD

Amazon Virtual Private Cloud (Amazon VPC) gives you full control over your virtual networking environment, including resource placement, connectivity, and security. Get started by setting up your VPC in the AWS service console.

8.S3 SIMPLE STORAGE SERVICE

- ▶ Amazon S3 is an object storage service that stores data as objects within buckets.
- ▶ An object is a file and any metadata that describes the file.
- ▶ A bucket is a container for objects. To store your data in Amazon S3, you first create a bucket and specify a bucket name and AWS Region.

❖ S3=Store+Process+Retrive

9.SQS

Simple queue service

Amazon Simple Queue Service (SQS) lets you send, store, and receive messages between software components at any volume, without losing messages or requiring other services to be available.

10.SNS

Simple Notification Service

Amazon Simple Notification Service (Amazon SNS) is a managed service that provides message delivery from publishers to subscribers (also known as *producers* and *consumers*).

Publishers communicate asynchronously with subscribers by sending messages to a *topic*, which is a logical access point and communication channel.

Clients can subscribe to the SNS topic and receive published messages using a supported endpoint type, such as Amazon

Kinesis Data Firehose, Amazon SQS, AWS Lambda, HTTP, email, mobile push notifications, and mobile text messages (SMS).

11.CLOUDWATCH

CloudWatch enables you to monitor your complete stack (applications, infrastructure, and services) and use alarms, logs, and events data to take automated actions and reduce mean time to resolution (MTTR).

This frees up important resources and allows you to focus on building applications and business value.

12.CLOUD TRIAL

CloudTrail enables auditing, security monitoring, and operational troubleshooting by tracking user activity and API usage.

CloudTrail logs, continuously monitors, and retains account activity related to actions across your AWS infrastructure, giving you control over storage, analysis, and remediation actions.

13.Code deployed

CodeDeploy is a deployment service that automates application deployments to Amazon EC2 instances, on-premises instances, serverless Lambda functions, or Amazon ECS services.

14.Code Pipeline

AWS CodePipeline is a continuous delivery service that enables you to model, visualize, and automate the steps required to release your software.

15.LAMBDA

AWS Lambda is a compute service that lets you run code without provisioning or managing servers.

Lambda runs your code on a high-availability compute infrastructure and performs all of the administration of the compute resources, including server and operating system maintenance, capacity provisioning and automatic scaling, and logging. With Lambda, you can run code for virtually any type of application or backend service.

- Lambda is a serverless architecture.

16.AMAZON INSPECTOR

Amazon Inspector is an automated vulnerability management service that continually scans AWS workloads for software vulnerabilities and unintended network exposure.

17.Elastic file system

Amazon Elastic File System (Amazon EFS) is a simple, serverless, set-and-forget, elastic file system.

There is no minimum fee or setup charge. You pay only for the storage you use, for read and write access to data stored in Infrequent Access storage classes, and for any provisioned throughput.

18.elastic beanstalk

AWS Elastic Beanstalk automates the details of capacity provisioning, load balancing, auto scaling, and application deployment, creating an environment that runs a version of your application. You can simply upload your deployable code (e.g., WAR file), and AWS Elastic Beanstalk does the rest.

19.Route-53

Amazon Route 53 is a highly available and scalable Domain Name System (DNS) web service.

You can use Route 53 to perform three main functions in any combination: domain registration, DNS routing, and health checking.

- Simple routing.
- Failover routing.
- Geolocation routing.
- Geoproximity routing (traffic flow only)
- Latency-based routing.
- IP-based routing.
- Multivalue answer routing.
- Weighted routing.

20.Amazon Redshift

Amazon Redshift Serverless automatically provisions data warehouse capacity and intelligently scales the underlying resources. Amazon Redshift Serverless adjusts capacity in seconds to deliver consistently high performance and simplified operations for even the most demanding and volatile workloads.

Access and analyze data without the need to set up, tune, and manage Amazon Redshift provisioned clusters.

21.Cloud front

Amazon CloudFront is a web service that **speeds up distribution of your static and dynamic web content**, such as .html, .css, .js, and image files, to your users.

CloudFront delivers your content through a worldwide network of data centers called edge locations.

If the content is already in the edge location with the lowest latency, CloudFront delivers it immediately.

22.Migration

AWS Server Migration Service (AWS SMS) automates the migration of your on-premises VMware vSphere, Microsoft Hyper-V/SCVMM, and Azure virtual machines to the AWS Cloud. AWS SMS incrementally replicates your server VMs as cloud-hosted Amazon Machine Images (AMIs) ready for deployment on Amazon EC2.

