AWS Terminologies

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| Sr No. | Service Name | Description |
| 1 | **Cloud-Based Deployment** | A cloud-based deployment runs all parts of the application in the cloud. Resources are provisioned as needed to scale. |
| 2 | **On-Premises Deployment (Private Cloud)** | Resources are deployed on a private infrastructure, offering complete control and security for sensitive workloads. |
| 3 | **Hybrid Deployment** | Combines cloud-based and on-premises resources, enabling businesses to use the best of both worlds for flexibility. |
| 4 | **Amazon EC2 (Elastic Compute Cloud)** | Provides scalable, secure virtual servers to run applications. You can quickly provision instances and pay only for usage. |
| 5 | **Amazon ELB (Elastic Load Balancing)** | Automatically distributes incoming application traffic across multiple instances for fault tolerance and scalability. |
| 6 | **General Purpose Instances** | EC2 instances that balance compute, memory, and networking resources for diverse workloads like web servers. |
| 7 | **Compute Optimized Instances** | EC2 instances optimized for compute-intensive tasks like gaming and scientific simulations, providing high performance. |
| 8 | **Memory Optimized Instances** | Ideal for memory-intensive applications such as high-performance databases or big data processing. |
| 9 | **Accelerated Computing Instances** | Use hardware accelerators (like GPUs) for graphics, machine learning, or scientific workloads requiring fast processing. |
| 10 | **Storage Optimized Instances** | Designed for storage-heavy applications, such as large databases or data warehousing, with high disk I/O requirements. |
| 11 | **On-demand Instances** | Pay-as-you-go EC2 pricing model with no long-term commitment, ideal for unpredictable or short-term workloads. |
| 12 | **Reserved Instances** | Offers cost savings by committing to a one- or three-year term. Suitable for steady-state workloads with predictable usage. |
| 13 | **EC2 Instance Savings Plans** | Flexible pricing that provides discounts on compute usage without requiring a specific instance configuration. |
| 14 | **Spot Instances** | Allows use of unused EC2 capacity at up to 90% discount, suitable for fault-tolerant or flexible applications. |
| 15 | **Dedicated Hosts** | Physical servers dedicated to your use, allowing you to meet compliance or licensing requirements. |
| 16 | **Amazon Auto Scaling** | Automatically adjusts the number of EC2 instances in response to traffic patterns to optimize costs and performance. |
| 17 | **Amazon SQS (Simple Queue Service)** | Fully managed message queuing service that enables decoupling of microservices and serverless applications. |
| 18 | **Amazon SNS (Simple Notification Service)** | A pub/sub messaging service that sends notifications to subscribed endpoints such as emails, SMS, or Lambda functions. |
| 19 | **AWS Lambda** | Serverless compute service to run code without provisioning or managing servers, triggered by events like HTTP requests. |
| 20 | **Amazon ECS (Elastic Container Service)** | Highly scalable container orchestration service for Docker containers, offering full control over resource configurations. |
| 21 | **Amazon EKS (Elastic Kubernetes Service)** | Managed Kubernetes service to deploy, manage, and scale containerized applications using Kubernetes. |
| 22 | **AWS Fargate** | Serverless compute engine for containers that eliminates the need to provision or manage underlying infrastructure. |
| 23 | **Regions** | Geographically distinct AWS data center locations designed to deliver high availability, fault tolerance, and low latency. |
| 24 | **Availability Zones** | Multiple, isolated data centers in a region connected by low-latency links to ensure fault tolerance and high availability. |
| 25 | **Edge Locations** | Locations for caching content closer to users, reducing latency and improving performance for global applications. |
| 26 | **Amazon CloudFront** | A fast content delivery network (CDN) that securely delivers data, videos, and APIs globally with low latency. |
| 27 | **Amazon Route 53** | A scalable Domain Name System (DNS) service to route end users to applications efficiently and reliably. |
| 28 | **AWS Outposts** | Extends AWS infrastructure and services to on-premises environments for hybrid cloud solutions. |
| 29 | **AWS Management Console** | Web-based GUI to access and manage AWS resources intuitively. |
| 30 | **AWS CLI (Command Line Interface)** | Command-line tool to manage AWS services, enabling automation through scripts. |
| 31 | **AWS SDKs** | Software Development Kits that allow integration of AWS services into custom applications using popular programming languages. |
| 32 | **AWS Elastic Beanstalk** | A Platform-as-a-Service (PaaS) to deploy and manage applications without worrying about infrastructure. |
| 33 | **AWS CloudFormation** | Infrastructure as Code (IaC) service for modeling and setting up AWS resources using declarative templates. |
| 34 | **Amazon Virtual Private Cloud (VPC)** | A logically isolated section of the AWS Cloud to launch resources in a virtual network securely. |
| 35 | **Subnets** | Subdivisions of a VPC to organize resources into public and private subnets. |
| 36 | **Public Subnets** | Subnets exposed to the internet, typically used for hosting web servers or other front-end services. |
| 37 | **Private Subnets** | Subnets without internet access, used for backend resources like databases and internal applications. |
| 38 | **Internet Gateway** | A gateway that allows communication between a VPC and the internet. |
| 39 | **Virtual Private Gateway** | A gateway that enables secure communication between your on-premises network and your VPC over a VPN. |
| 40 | **AWS Direct Connect** | Establishes a private, high-speed connection between your on-premises network and AWS. |
| 41 | **Network Access Control Lists (NACLs)** | Stateless firewalls controlling inbound and outbound traffic at the subnet level. |
| 42 | **Security Groups** | Stateful firewalls that control traffic to instances, acting as a virtual firewall for EC2. |
| 43 | **Amazon Elastic Block Store (Amazon EBS)** | Provides block storage for use with EC2 instances, suitable for transactional workloads. |
| 44 | **EBS Snapshots** | Incremental backups of Amazon EBS volumes for disaster recovery or migration. |
| 45 | **Amazon Simple Storage Service (Amazon S3)** | Object storage service for storing and retrieving any amount of data from anywhere. |
| 46 | **Objects** | Data stored in Amazon S3, including metadata. |
| 47 | **Buckets** | Containers in Amazon S3 to store and organize objects. |
| 48 | **S3 Standard** | General-purpose storage class for frequently accessed data. |
| 49 | **S3 Standard-Infrequent Access (S3 Standard-IA)** | Storage class for infrequently accessed data with lower retrieval costs. |
| 50 | **S3 Glacier Flexible Retrieval** | Storage class for long-term data archiving with occasional access needs. |
| 51 | **S3 Glacier Instant Retrieval** | Storage class optimized for archiving data that requires immediate retrieval. |
| 52 | **S3 Glacier Deep Archive** | Lowest-cost storage class for data that rarely needs to be accessed. |
| 53 | **S3 Outposts** | Extends Amazon S3 to on-premises locations for hybrid cloud solutions. |
| 54 | **Amazon Elastic File System (Amazon EFS)** | Fully managed file storage service that provides scalable storage for multiple EC2 instances. |
| 55 | **Amazon Relational Database Service (Amazon RDS)** | Simplifies the setup, operation, and scaling of relational databases in the cloud. |
| 56 | **Amazon Aurora** | A MySQL- and PostgreSQL-compatible relational database engine built for the cloud. |
| 57 | **Amazon DynamoDB** | NoSQL database service offering single-digit millisecond performance at any scale. |
| 58 | **Amazon RedShift** | Fully managed data warehouse service for large-scale data analysis and reporting. |
| 59 | **AWS Data Migration Service (AWS DMS)** | Simplifies database migration to AWS, supporting homogeneous and heterogeneous migrations. |
| 60 | **Amazon DocumentDB** | Managed NoSQL database service for JSON-based applications. |
| 61 | **Amazon Neptune** | Graph database service for building and running graph applications. |
| 62 | **Amazon QLDB (Quantum Ledger Database)** | Fully managed ledger database that provides a transparent, immutable, and cryptographically verifiable transaction log. |
| 63 | **Amazon Managed Blockchain** | Fully managed service to create and manage scalable blockchain networks. |
| 64 | **Amazon ElastiCache** | In-memory caching service to accelerate the performance of databases and applications. |
| 65 | **DynamoDB Accelerator (DAX)** | Caching service for DynamoDB that provides microsecond response times. |
| 66 | **Shared Responsibility Model** | AWS and customers share responsibility for security and compliance in the cloud. |
| 67 | **AWS Identity and Access Management (IAM)** | Manages user access and permissions to AWS services and resources securely. |
| 68 | **Root User** | The initial AWS account user with full access to all services and resources. |
| 69 | **IAM Users** | Individual user accounts with customized permissions within AWS. |
| 70 | **Policies** | JSON-based documents defining access permissions for users, groups, and roles. |
| 71 | **Groups** | A collection of IAM users with shared permissions. |
| 72 | **Roles** | Grant temporary access to AWS resources for users or services. |
| 73 | **Federated Access** | Enables integration of third-party identity providers for single sign-on (SSO). |
| 74 | **AWS Organizations** | Centralized management of multiple AWS accounts with consolidated billing. |
| 75 | **Service Control Policies (SCPs)** | Define access control policies for organizational units or accounts in AWS Organizations. |
| 76 | **AWS Artifact** | Provides access to AWS compliance reports and agreements. |
| 77 | **AWS Shield** | Managed service to protect against DDoS attacks, with Standard and Advanced tiers. |
| 78 | **Amazon GuardDuty** | Threat detection service that monitors AWS accounts and workloads for malicious activities. |
| 79 | **AWS Key Management Service (KMS)** | Managed service to create and control encryption keys for securing data. |
| 80 | **AWS WAF** | Web Application Firewall that protects against common web exploits. |
| 81 | **Amazon Inspector** | Automated security assessment service to enhance the security and compliance of applications deployed on AWS. |