AWS cloud practitioner cheatsheet (src:-W3schools)

Sl no.	AWS Term	Detailed description
1.	AWS benefits	Cost savings Security Scalability Flexibility
2.	AWS EC2 - Virtual Cloud Server	EC2 is a virtual server in the AWS Cloud. AWS EC2 is short for AWS Elastic Cloud Compute. It makes scaling of capacity up and down easy. It makes the process of increasing and decreasing capacity easier. As a result, you can access the resources at demand. No upfront investment is needed. You only pay for what you need.
3.	AWS EC2 Instance Types	• General Purpose Instance • Compute Optimized Instances • Memory Optimized Instances • Accelerated Computing Instances • Storage Optimized Instances
4.	AWS Cloud EC2 Pricing	• On Demand Instances • AWS EC2 Savings Plan • Reserved Instances • Spot Instances • Dedicated Hosts
5.	AWS Cloud Elastic Load Balancing	This service distributes application traffic across services. The Load Balancer is a single point of contact for incoming web traffic. The single point of contact means that the traffic hits the Load Balancer first, spreading out the load between the resources. The balancer accepts requests and directs them to the appropriate instances. It ensures that one resource won't get overloaded, and that the traffic is spread out. AWS EC2 and Elastic Load Balancing are two different services that work well together.
6.	AWS SNS - Simple Notification Service	SNS is a cloud service for the mass delivery of messages. It is a fully managed publish-subscribe messaging and mobile communication service. It can be event-driven, with automated services responding to triggers. Distributed systems and micro services can be decoupled with messaging between them through AWS SNS. Application-to-person messaging to users is possible with SMS, mobile push, and email.
7.	AWS SQS - Simple Queue Service	AWS Simple Queue Service is also called AWS SQS SQS is a message queuing service. It exchanges and stores messages between software components. The service adds the messages in a queue. Users or services pick up the messages from the queue. Once processed the messages gets deleted from the queue.
8.	AWS Cloud Serverless	Serverless is a service where you do not have to think about servers. With serverless, you only have to think about code. The cloud provider handles all infrastructures behind it. Example:- AWS Lambda
9.	Serverless Cloud Compute - AWS Lambda	AWS Lambda a serverless compute service. This service lets you run code without needing to think about servers. It lets you focus on what's most important, such as making a great application. You only pay for the compute time that you use. Pay for what you use translates to that you only pay when your code is

		running.
10	AWS Cloud Containers	Containers are popular for deploying and managing applications in the cloud. Containers let you package code in a single object. The container isolates the code and removes the dependencies to other components. It runs in isolation. Containers are an essential concept in micro service architectures.
11	AWS ECS - Elastic Container Service	ECS helps you run containerized applications. It is a management system built for scale and high performance. ECS supports Docker.
12	AWS EKS - Elastic Kubernetes Service	AWS Elastic Kubernetes Service is also called AWS EKS EKS is a managed service that lets you run Kubernetes on AWS. It is built for scaling with Kubernetes.
13	AWS Cloud Fargate	Serverless Compute for Containers - AWS Fargate It helps to deploy and manage applications. Fargate manages the infrastructure for you. You do not have to think about the provision of servers and infrastructure management when using Fargate.
14	AWS Cloud Infrastructure	AWS has global infrastructure with Data Centers all over the world. Deploy apps across the globe or to a specific location. Build and deploy where you want.
15	AWS Cloud Regions	AWS has Data Centers all over the world. Selecting a Region There are different reasons to choose a specific region. Those reasons could be: - Data regulations - Customer proximity - Service availability - Pricing
16	AWS Cloud Availability Zones	Availability Zone is a single Data Center or a group of Data Centers in a region. In an Availability Zone the Data Centers are located many miles apart from each other. Having them apart reduces the risk of them all going down if a disaster happens in the region. Simultaneously, have the Data Center(s) close enough to have low latency.
17	AWS Cloud Edge Locations	Edge Location is the Data Center used to deliver content fast to your users. It is the site that is nearest your users. The AWS Edge Locations uses a service called CloudFront. CloudFront is used to store cached copies of your content. Resulting in fast delivery of your content.
18	AWS Cloud Resource Provisioning	AWS Management Console AWS Command Line Interface Software Development Kits
19	AWS Cloud Provision Services	AWS Elastic Beanstalk:- With AWS Elastic Beanstalk, you provide code and configuration settings. Elastic Beanstalk deploys the resources necessary to perform the following tasks: - Adjust capacity - Load balancing - Automatic scaling - Application health monitoring

		AWS CloudFormation: - With AWS CloudFormation, you can treat your infrastructure as code. Using this service you can build an environment by writing lines of code, Instead of using the AWS Management Console to provision resources individually.
20	AWS Cloud Connectivity	**AWS Virtual Private Cloud: -** AWS Virtual Private Cloud is also called AWS VPC. VPC is a service that lets you isolate your AWS resources in an isolated network. The boundaries created around the resources let AWS restrict the network traffic. In addition, it allows you to include the sections of the AWS Cloud that you want in the isolated network. Resources can be organized in subnets. A subnet is a section in the VPC that can contain specific resources. **Internet Gateway: -** Public traffic can be allowed to your VPC. The traffic is allowed by an Internet Gateway. **Virtual Private Gateway: -** A Virtual Private Gateway is used to access private resources in the VPC. It has extra layers of protection. The Virtual Private Gateway encrypts the internet traffic, keeping it protected. It is a component that allows the encrypted traffic to enter the VPC. **AWS Direct Connect: -** AWS Direct Connect lets you make a dedicated private connection between the Data Center and a VPC. A dedicated connection is to have the link for yourself. The link is not shared with others. Only you and your data can travel through the connection.
21	AWS Cloud Subnet and Access	• Public Subnets • Private Subnets • Network Traffic in a VPC • Network Access Control Lists • Stateless Packet Filtering • Security Groups • Stateful Packet Filtering
22	AWS Cloud Global Networking	**Domain Name System:** Domain Name System is also called DNS. DNS is the service that lets someone access your website from their browser. The DNS is like a phone book. It connects the IP address to the domain name. **AWS Route 53:** Route 53 is a DNS web service. It routes end users to internet apps hosted in AWS. Route 53 connects users and their requests to AWS resources and external resources.
23	AWS EBS - Elastic Block Store	AWS EBS is also called AWS Elastic Block Store. EBS is a service that provides storage volumes. You can use provided storage volumes in Amazon EC2 instances. EBS volumes are used for data that needs to persist. It is important to backup the data with AWS EBS snapshots.

24	AWS S3 - Simple Storage Service	AWS S3 is also called AWS Simple Storage Service. S3 is a storage service. It allows uploading any type of file. In S3 you can set access permissions to a file. It is object-level storage. It offers unlimited space in the storage. The maximum file size is 5 TB.
25	AWS EFS - Elastic File System	AWS EFS is also called AWS Elastic File System. EFS is a file system. Data in EFS is accessed via file paths. Compared to AWS EBS, AWS EFS saves the data in many Availability Zones. Scaling AWS EFS does not disrupt applications. It is ideal if many services need to access the same data at the same time.
26	AWS RDS - Relational Database Service	AWS RDS is also called AWS Relational Database Service. RDS is a service that automates database tasks. It enables running relational databases in AWS Cloud. It supports these database engines: • AWS Aurora • PostgreSQL • MySQL • MariaDB • Oracle Database • Microsoft SQL Server
27	AWS Cloud DynamoDB	AWS DynamoDB is a non-relational, NoSQL database. It is a serverless database. DynamoDB is a high performance service.
28	AWS Cloud Redshift	AWS Redshift is big data analytics service. It can gather information from many sources. It assists you with getting connections across your data. AWS Redshift is powered by SQL, AWS-designed hardware, and machine learning. It is great when data becomes too complex for the traditional relational database.
29	AWS DMS - Database Migration Service	It helps you move data between databases. There is a source database and a target database. A source database is a database from where data is migrated. A target database is a database where data is migrated to.
30	AWS DocumentDB	AWS DocumentDB is a document-based database service. It is a type of NoSQL database. It supports MongoDB. It is ideal for content management systems, user profiling, cataloging.
31	AWS Neptune	AWS Neptune is a graph database service. It can be used to create graphs from your data for various purposes. It is great for financial records, supply chain systems, and other centralized digital records.
32	AWS QLDB (AWS Quantum Ledger Database)	AWS QLDB is a ledger database service. It provides historical data of all of your application changes. It is great for financial records, supply chain systems, and other centralized digital records.
33	AWS Managed Blockchain	AWS Managed Blockchain is a service that utilizes open-source frameworks to create or manage blockchain networks. With a few clicks, you can join, create, and manage blockchain networks.

		Ethereum and Hyperledger Fabric are popular open-source blockchain technologies.
34	AWS Identity and Access Management	AM features are: • AWS account root user • IAM Users • IAM policy • IAM groups • IAM roles • Multi-factor authentication
35	AWS Shield	AWS Shield gives protection against DoS and DDoS attacks. It provides standard and advanced protection. AWS Shield Standard protection protects all AWS users at no expense. AWS Shield Advanced is a paid service. AWS Shield Advanced provides attack details and can minimize the effects of more complex attacks.
36	AWS CloudWatch	Cloud Monitoring and Management Service - AWS CloudWatch CloudWatch lets you monitor your resources. It is a web-based service. Configure the service to monitor and set alarms based on your metrics.
37	AWS CloudTrail	Cloud Action Logging Service - AWS CloudTrail CloudTrail logs actions inside your AWS environment. It records API calls on your account.
38	AWS TrustedAdvisor	Cloud Inspection Service - AWS TrustedAdvisor TrustedAdvisor checks your account, evaluates, and recommends. It recommends helping you follow AWS best practices.
39	Cloud Migration Strategies	Migration Strategies are plans that help you move your applications into the cloud. There are six most common strategies you can implement for your application migration: 1. Rehosting 2. Replatforming 3. Refactoring 4. Repurchasing 5. Retaining 6. Retiring
40	AWS Well-Architected Framework	AWS Well-Architected Framework is a tool that uses best practices to find improvements for your applications in the cloud. It helps you in five areas: 1. Operational excellence 2. Security 3. Reliability 4. Performance efficiency 5. Cost optimization Those areas are also called the five pillars of AWS Well-Architected Framework.
41	Benefits of the AWS Cloud	There are six crucial benefits of the AWS Cloud: • Trade upfront expense for variable expense • Benefit from massive economies of scale • Stop guessing capacity • Increase speed and agility • Stop spending money running and maintaining data centers • Go global in minutes