

AWS

Certified Cloud Practitioner

CLF - C02

(Cheatsheet)



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Analytics

AWS ATHENA

- Serverless query service to analyze data stored in Amazon S3
 - Uses standard SQL language to query the files
 - Use cases: Business intelligence, analytics etc.
- Exam tip : Analyzing data in S3 using serverless SQL - Athena**

AMAZON REDSHIFT

- Based on PostgreSQL, **but it's not used for OLTP**
- It's OLAP – online analytical processing (analytics and data warehousing)
- Columnar storage of data (instead of row based)

AWS DATA EXCHANGE

A Service to help users discover, subscribe to, and utilize third-party data easily on AWS Cloud

AMAZON QUICKSIGHT

- Serverless machine learning-powered business intelligence service to create interactive dashboards
- **Use cases: Business analytics, Building visualizations, Get business insights using data**
- Integrated with RDS, Aurora, Athena, Redshift

AMAZON EMR - ELASTIC MAPREDUCE

- Helps creating **Hadoop clusters (Big Data)** to analyze and process vast amount of data
- Use cases: data processing, machine learning, web indexing, big data

AWS GLUE

- Serverless, Managed extract, transform, and load (ETL) service
 - Useful to prepare and transform data for analytics
- Glue Data Catalog: catalog of datasets & can be used by Athena, Redshift, EMR**

AMAZON KINESIS

- Managed service to collect, process, and analyze real-time streaming data at any scale

Exam Tip : Kinesis = real-time big data streaming

Application Integration

AMAZON EVENTBRIDGE

- Serverless service that uses events to connect application components together, making it easier for you to build scalable event-driven applications

Exam Tip : Triggers Lambda functions to send SNS messages

AWS STEP FUNCTIONS

- Lets us orchestrate multiple AWS services into serverless workflows so that we can build and update applications quickly
- Can integrate with EC2, ECS, On-premises servers

Use cases: order fulfillment, data processing

AMAZON SIMPLE NOTIFICATION SERVICE (SNS)

- Service that enables applications, end-users, and devices to instantly send and receive notifications from the cloud

Exam Tip : Think SNS is like the party popper - it bursts with notifications, surprises everyone with instant alerts

AMAZON SIMPLE QUEUE SERVICE (SQS)

- Serverless, used to decouple applications
- Messages are deleted after they're read by consumers

Exam tip : A digital messenger that helps different computer programs talk to each other without getting all tangled up

Business Applications

AMAZON CONNECT

- Basically a **Cloud-based virtual contact center**
 - Uses Artificial Intelligence that teaches computers to understand and respond to human language
- Powerful tool for building chatbots

AMAZON SIMPLE EMAIL SERVICE (SES)

- A **cost-effective email service** built on the reliable and scalable infrastructure
- Simplifies and scales the sending of emails from applications

Cloud Financial Management

AWS BUDGETS

- Create budget and send alarms when costs exceeds the budget
- 4 types of budgets: Usage, Cost, Reservation, Savings Plans

Caution : Do not confuse with AWS Cost Explorer!

AWS COST AND USAGE REPORT

- Provides detailed and granular data about your AWS usage
- It can deliver report files to your Amazon S3 bucket
- Users can customize report, set specific report intervals, and establish budget alerts

AWS COST EXPLORER

- Visualize, understand, and manage your AWS costs and usage over time
- Analyze your data at a high level: total costs and usage across all accounts
- **Forecast usage up to 12 months based on previous usage**

AWS MARKETPLACE

- Digital catalog with thousands of software listings from 3rd party software vendors
- If you buy through the AWS Marketplace, it goes into your AWS bill
- **You can sell your own solutions on the AWS Marketplace**

Containers

AMAZON ELASTIC CONTAINER REGISTRY (AMAZON ECR)

- This is where you **store your Docker images** so they can be run by ECS or Fargate
- You can use your preferred CLI to push, pull, and manage Docker images

AMAZON ELASTIC CONTAINER SERVICE (AMAZON ECS)

- **Run Docker containers** on EC2 instances
- You must provision & maintain the infrastructure (the EC2 instances)

AMAZON ELASTIC KUBERNETES SERVICE (AMAZON EKS)

- Managed Kubernetes service to run Kubernetes in the AWS cloud and on-premises data centers

Compute

AWS BATCH

- Fully managed batch processing at any scale
- A “batch” job is a job with a start and an end
- Batch will dynamically launch EC2 instances or Spot Instances

Batch jobs are defined as Docker images and run on ECS

AMAZON EC2

- Delivers secure, reliable, high-performance, and cost-effective compute infrastructure to meet demanding business needs
- **Knowing EC2 is fundamental to understand how the Cloud works**

AWS ELASTIC BEANSTALK

- Developer centric view of deploying an application on AWS
- Platform as a Service (PaaS)
- **Just the application code is the responsibility of the developer**

AMAZON LIGHTSAIL

- Great for people with little cloud experience!
- Low & predictable pricing
- Use cases:
 - Simple web applications
 - Websites
 - Dev / Test environment

AWS LOCAL ZONES

- Places AWS compute, storage, database, and other selected AWS services closer to end users to run latency-sensitive applications

AWS OUTPOSTS

- AWS Outposts are “server racks” that offers the same AWS infrastructure, services, APIs & tools to build your own applications on-premises just as in the cloud
- AWS will setup and manage “Outposts Racks”

AWS WAVELENGTH

- WaveLength Zones are infrastructure deployments embedded within the telecommunications providers’ datacenters at the edge of the **5G networks**
- Brings AWS services to the edge of the 5G networks

Database

AMAZON AURORA

- MySQL and PostgreSQL-Compatible Relational Database
- Costs more than RDS (20% more) but is more efficient

Exam Tip : Aurora is a proprietary technology from AWS (not open source)

AMAZON DYNAMODB

- Serverless, NoSQL database - not a relational database
- Millions of requests per seconds, Fast and consistent in performance

DynamoDB Accelerator is a Fully Managed in-memory cache for DynamoDB

AMAZON NEPTUNE

- Fully managed graph database service
- A popular graph dataset would be a social network Eg. Wikipedia
- Highly Available and Secure so suitable for enterprise-level applications

AMAZON RDS

- Looks just like Excel spreadsheets, with links between them
 - Supports MySQL, PostgreSQL, Oracle etc.
- Ensures scalability and high availability via automated backups, multi-AZ deployments, and read replicas to handle increased workloads

Customer Engagement

AWS IQ

- Professional help for your AWS projects
 - Pay AWS Certified 3rd party experts for on-demand project work
- Basically a lifesaver when you dont know what to do or messed up what you are supposed to do

AWS MANAGED SERVICES (AMS)

- Provides infrastructure and application support on AWS
 - Offers a team of AWS experts who manage and operate your infrastructure for security, reliability, and availability
- (Avengers? Maybe)

AWS SUPPORT

- A range of plans that provide access to tools and expertise that support the success and operational health of your AWS solutions

Developer Tools

AWS CLI

- Provides a unified tool to manage your AWS services directly from the command line
- Direct access to the public APIs of AWS services

AWS CLOUD9

- Is a Cloud IDE (Integrated Development Environment) for writing, running and debugging code
- A cloud IDE can be used within a web browser, so you can work on your projects from your office, home, or anywhere with internet

AWS CLOUDSHELL

A browser-based shell, you can quickly run scripts with the AWS Command Line Interface (CLI), experiment with service APIs using the AWS CLI, and use other tools to increase your productivity

AWS CODEARTIFACT

- CodeArtifact is a secure, scalable, and cost-effective artifact management for software development
- Developers and CodeBuild can then retrieve dependencies straight from CodeArtifact

AWS CODEBUILD

- Code building service in the cloud (name is obvious)
- Compiles source code, run tests, and produces packages that are ready to be deployed (by CodeDeploy for example)

AWS CODECOMMIT

- Source-control service that hosts Git-based repositories
- Makes it easy to collaborate with others on code
 - The code changes are automatically versioned

AWS CODEDEPLOY

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

AWS CODEPIPELINE

- Orchestrate the different steps to have the code automatically pushed to production
- AWS CodePipeline automates the build, test, and deploy phases of your release process each time a code change occurs.

AWS CODESTAR

- Unified UI to easily manage software development activities in one place
- AWS CodeStar is a cloud-based service for creating, managing, and working with software development projects on AWS

AWS X-RAY

AWS X-Ray provides a complete view of requests as they travel through your application and filters visual data across payloads, functions, traces, services, APIs, and more with no-code and low-code motions

End User Computing

AMAZON APPSTREAM 2.0

- Desktop Application Streaming Service
- The application is delivered to a computer from within a web browser
- Works with any device (that has a web browser)

AMAZON WORKSPACES

- Easily provision Windows or Linux desktops
- Eliminate management of on-premise VDI
- Pay-as-you-go service & integrates with KMS

Frontend Web and Mobile

AWS AMPLIFY

- A set of tools and services that helps you develop and deploy scalable full stack web and mobile applications
- Set of purpose-built tools and features that enables frontend web and mobile developers to easily build full-stack applications

AWS APPSYNC

- Store and sync data across mobile and web apps in real-time
- Makes use of GraphQL (mobile technology from Facebook)
- Integrations with DynamoDB / Lambda

AWS DEVICE FARM

- Fully-managed service that tests your web and mobile apps against real devices i.e desktop browsers, real mobile devices etc.
- Test your app in parallel against a massive collection of physical devices

Internet of Things (IoT)

AWS IOT CORE

- Allows you to easily connect IoT devices to the AWS Cloud
- Serverless, secure & scalable to billions of devices and trillions of messages
- Secure two-way communication between internet-connected devices and AWS

AWS IOT GREENGRASS

AWS IoT Greengrass is an open-source edge runtime and cloud service that helps you build, deploy, and manage intelligent device software

Machine Learning

AMAZON COMPREHEND

- For **Natural Language Processing – NLP**
- Fully managed and serverless service
- Uses machine learning to find insights and relationships in text

AMAZON KENDRA

- Fully managed **document search service** powered by Machine Learning
- Extract answers from within a document
- Use **natural language processing (NLP)** to get highly accurate answers

AMAZON LEX

- Build conversational bots – **chatbots**
- Same technology that powers **Alexa**
- Automatic Speech Recognition (ASR) to convert speech to text

AMAZON POLLY

- **Text to Audio**
- Uses deep learning technologies to synthesize natural-sounding human speech, so you can convert articles to speech

AMAZON REKOGNITION

- **Face detection**, labeling, celebrity recognition
- Find **objects, people, text, scenes in images** and videos using ML
- Facial analysis and facial search to do user verification, people counting

AMAZON SAGEMAKER

- Fully managed service for **developers / data scientists to build ML models**
- Machine learning process (simplified), Eg. Predicting your exam score based on an ML model

AMAZON Textract

- Automatically **extracts text, handwriting, and data from any scanned documents using AI and ML**
- Textract can extract the data in minutes instead of hours or days.

AMAZON TRANSCRIBE

- Automatically convert speech to text
- Uses Automatic speech recognition (ASR) to convert speech to text
- Automatically removes Personally Identifiable Information (PII) using Redaction
- Supports Automatic Language Identification for multi-lingual audio

AMAZON TRANSLATE

- Natural and accurate language translation
- Neural machine translation service, uses deep learning to deliver more **accurate and natural translation**

Management and Governance

AWS AUTO SCALING

AWS Auto Scaling monitors your applications and **automatically adjusts capacity** to maintain steady, predictable performance at the lowest possible cost.

AWS CLOUDTRAIL

- Get an **history of events / API calls** made within your AWS Account
- Records important information about each action, including who made the request, the services used, the actions performed

AWS CLOUDFORMATION

- **Infrastructure as code (IaC)** service that allows you to easily model, provision, and manage AWS and third-party resources
- A single **CloudFormation template** can manage the deployment of individual services or resources and multiple resources

AMAZON CLOUDWATCH

- Basically a metrics repository
- Metric is a variable to monitor (CPU Utilization...etc.)
- **Monitoring service** for AWS cloud resources and the applications you run on AWS

AWS COMPUTE OPTIMIZER

- AWS Compute Optimizer **recommends more efficient AWS compute resources** for your workloads to reduce costs and improve performance
- Recommends optimal AWS resources

AWS CONFIG

- Helps with **auditing and recording compliance of your AWS resources**
- Helps record configurations and changes over time
- Possibility of storing the configuration data into S3 (analyzed by Athena)

AWS CONTROL TOWER

- Easy way to set up and **govern a secure and compliant multi-account AWS environment** based on best practices
- AWS Control Tower runs on top of AWS Organizations

Management and Governance

AWS HEALTH DASHBOARD

A personalized view of the health of AWS services, and alerts when your resources are impacted

AWS MANAGEMENT CONSOLE

Manage your AWS cloud resources easily through a web-based interface using the AWS Management Console.

AWS ORGANIZATIONS

- Allows to **manage multiple AWS accounts**, Global service
- Consolidated Billing across all accounts - single payment method
- Restrict account privileges using **Service Control Policies (SCP)**

AWS RESOURCE GROUPS AND TAG EDITOR

- Tags are used for organizing resources
- Tags can be used to create Resource Groups
- Resource Groups allow you to easily **create, maintain, and view a collection of resources** that share **common tags**

AWS SERVICE CATALOG

- **Self-service portal** to launch a set of authorized products pre-defined by admins
- Helps you create and manage **laC templates** approved for use on AWS so anyone can discover approved, self-service cloud resources

AWS SYSTEMS MANAGER

- Helps you manage your **EC2 and On-Premises systems at scale**, Hybrid Service
- Get operational insights about the state of your infrastructure

AWS TRUSTED ADVISOR

- Provides you with **real-time assistance to help** you provision your resources following AWS best practices
- Draws upon best practices learned from AWS' aggregated operational history of serving thousands of AWS customers

AWS WELL-ARCHITECTED TOOL

- Review your architectures against the **6 pillars Well-Architected Framework** and adopt architectural best practices
- Describes key concepts, design principles, and architectural best practices for designing and running workloads in the cloud

Migration and Transfer

AWS APPLICATION DISCOVERY SERVICE

- Helps you plan migrations to the cloud by **collecting usage and configuration data** about your **on-premises servers**
- The Discovery Agent is AWS software that you install on your on-premises servers and VMs to capture system configuration

AWS APPLICATION MIGRATION SERVICE

- Highly automated **lift-and-shift solution**
- Minimizes time-intensive, error-prone manual processes by automating the conversion of your source servers to run natively on AWS

AWS DATABASE MIGRATION SERVICE (AWS DMS)

- **Quickly and securely migrate databases to AWS**, resilient, self healing
- The source database remains available during the migration

AWS SCHEMA CONVERSION TOOL (AWS SCT)

You can use the AWS Schema Conversion Tool (AWS SCT) to convert your existing database schema from **one database engine to another**.

AWS MIGRATION HUB

- Central location to **collect servers and applications inventory data** for assessment, planning, and tracking of migrations to AWS
- A single place to discover your existing servers, plan migrations, and track the status of each application

AWS SNOW FAMILY

- Service that helps customers who need to run operations in austere, non-data center environments, and in locations where there's **no consistent network connectivity**

AWS TRANSFER FAMILY

AWS Transfer Family enables fully managed support for SFTP, FTPS and FTP to **move large amounts of data into AWS**

Networking and Content Delivery

AMAZON API GATEWAY

- Fully managed service for developers to easily create, publish, maintain, monitor, and secure APIs
- Serverless and scalable

AMAZON CLOUDFRONT

- Content Delivery Network (CDN)
- Improves read performance, content is cached at the edge
- DDoS protection (because worldwide), integration with Shield, AWS Web Application Firewall

AWS DIRECT CONNECT

- Establish a physical connection between on-premises and AWS
- The connection is private, secure and fast

AWS GLOBAL ACCELERATOR

- Improve global application availability and performance using the AWS global network
- The Edge locations send the traffic to your application

AMAZON ROUTE 53

- Route53 is a Managed DNS
- Highly available and scalable cloud domain name system (DNS) service
- Enables to customize DNS routing policies to reduce latency.

AMAZON VPC

- Gives you full control over your virtual networking environment, including resource placement, connectivity, and security
- you can launch AWS resources in a logically isolated virtual network that you've defined

AWS VPN

- AWS Client VPN is used by your remote workforce to securely access resources both on AWS and within your on-premises
- is a managed client-based VPN service

Security, Identity, and Compliance

AWS IDENTITY AND ACCESS MANAGEMENT (IAM)

- 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

AMAZON GUARDDUTY

- Intelligent Threat discovery to protect your AWS Account
- Uses Machine Learning algorithms, anomaly detection
- Can protect against Cryptocurrency attacks

AWS FIREWALL MANAGER

AWS Firewall Manager simplifies your administration and maintenance tasks across multiple accounts and resources for a variety of protections, including AWS WAF, AWS Shield Advanced, Amazon VPC security groups etc

AWS DIRECTORY SERVICE

- Provides multiple ways to use Microsoft Active Directory (AD) with other AWS services
 - **AWS Managed Microsoft AD**
 - **AD Connector**
 - **Simple AD**

AMAZON DETECTIVE

- Analyzes, investigates, and quickly identifies the root cause of security issues or suspicious activities (using ML and graphs)
- Automatically collects and processes events from VPC Flow Logs, CloudTrail, GuardDuty and create a unified view

AMAZON COGNITO

- Identity for your Web and Mobile applications users (potentially millions)
- Sign-in & Sign-up for web and mobile applications

AWS CLOUDHSM

- AWS provisions encryption hardware
- You manage your own encryption keys entirely (not AWS)

AWS CERTIFICATE MANAGER (ACM)

- Let's you easily provision, manage, and deploy SSL/TLS Certificates
- Used to provide in-flight encryption for websites (HTTPS)

AWS AUDIT MANAGER

- Helps you continuously audit your AWS usage to simplify how you assess risk and compliance with regulations and industry standards

AWS ARTIFACT

- Portal that provides customers with on-demand access to **AWS compliance documentation and AWS agreements**
- Artifact Reports - Allows you to **download AWS security and compliance documents**
- Artifact Agreements - Allows you to review, accept, and **track the status of AWS agreements**

Security, Identity, and Compliance

AWS SECRETS MANAGER

- Meant for **storing secrets** (obviously!!!)
- Capability to force rotation of secrets every X days
- Integration with **Amazon RDS** (mostly used for that)

AMAZON INSPECTOR

- Continuously scans your AWS workloads for software vulnerabilities
- Automatically discovers and scans running Amazon EC2, container images in Amazon Elastic Container Registry (Amazon ECR), and AWS Lambda functions

AWS IAM IDENTITY CENTER (AWS SINGLE SIGN-ON)

Centrally manage workforce access to multiple AWS accounts and applications

AWS KEY MANAGEMENT SERVICE (AWS KMS)

- Anytime you hear “encryption” for an AWS service, it’s most likely KMS
- KMS = AWS manages the encryption keys for us

AMAZON MACIE

- Fully managed data security and data privacy service that uses machine learning and pattern matching to discover and protect your sensitive data in AWS
- helps identify and alert you to sensitive data, such as **personally identifiable information (PII)**

AWS NETWORK FIREWALL

- Protect VPC against network attacks
 - Any direction, you can inspect
 - VPC to VPC traffic
 - Outbound/Inbound to/from internet
 - To / from Direct Connect & Site-to-Site VPN

AWS RESOURCE ACCESS MANAGER (AWS RAM)

- Share AWS resources that you own with other AWS accounts
- Share with any account or within your Organization
- Avoid resource duplication

AWS WEB APPLICATION FIREWALL (WAF)

- Protects your web applications from common web exploits (Layer 7)
 - Layer 7 is **HTTP** (vs Layer 4 is **TCP**)
- Deploy on **Application Load Balancer, API Gateway, CloudFront**

AWS SECURITY HUB

- Central security tool to manage security across several AWS accounts and automate security checks
- Integrated dashboards showing current security and compliance status to quickly take actions

AWS SHIELD

- Automatic **DDoS Protection** + 24/7 support for advanced
- Free service that is **activated for every AWS customer**

Storage

AWS STORAGE GATEWAY

- Hybrid storage service to allow on-premises to seamlessly use the AWS Cloud
- Use cases: disaster recovery, backup & restore, tiered storage

AMAZON S3 GLACIER

- Low-cost object storage meant for archiving / backup
- Types:
 - Amazon S3 Glacier Instant Retrieval
 - Amazon S3 Glacier Flexible Retrieval
 - Amazon S3 Glacier Deep Archive

AMAZON S3

- “Infinitely scaling” storage
 - S3 Use cases
 - Backup and storage
 - Disaster Recovery
 - Archive

Very Important for Exam

AMAZON FSX

- Built on **Windows File Server**
- Fully managed, highly reliable, and scalable **Windows native shared file system**
- Launch 3rd party high-performance file systems on AWS

AWS ELASTIC DISASTER RECOVERY

- Quickly and easily recover your physical, virtual, and cloud-based servers into AWS
- Continuous block-level replication for your servers

AWS BACKUP

- Fully-managed service to centrally manage and automate backups across AWS services
 - On-demand and scheduled backups
 - Supports PITR (Point-in-time Recovery)
 - Cross-Region and Cross-Account Backup (using AWS Organizations)

AMAZON ELASTIC BLOCK STORE (AMAZON EBS)

- Network drive you can attach to your instances while they run
- They can only be **mounted to one instance at a time**
- bound to a **specific availability zone**

AMAZON ELASTIC FILE SYSTEM (AMAZON EFS)

- Managed NFS (network file system) that can be **mounted on 100s of EC2**
- EFS works with Linux EC2 instances in multi-AZ
 - Highly available, scalable, **expensive**

Serverless

AWS FARGATE

- Serverless, Launch Docker containers on AWS
- You do not provision the infrastructure (no EC2 instances to manage)

AWS LAMBDA

- Function as a Service
- Virtual functions – no servers to manage!
 - Limited by time - short executions
 - Run on-demand
 - Scaling is automated

Technologies and concepts that might appear on the exam

API

- API stands for Application Programming Interface. In the context of APIs, the word Application refers to any software with a distinct function.
- Interface can be thought of as a contract of service between two applications. This contract defines how the two communicate with each other using requests and responses.

BENEFITS OF MIGRATING TO THE AWS CLOUD

- Migrating your workload to AWS comes with lots of benefits. AWS has achieved years of experience to deliver technical, operational, and organizational capabilities so you can achieve the desired results faster.

AWS CLOUD ADOPTION FRAMEWORK (AWS CAF)

- The AWS Cloud Adoption Framework (AWS CAF) leverages AWS experience and best practices to help you digitally transform and accelerate your business outcomes through innovative use of AWS.
- AWS CAF identifies specific organizational capabilities that underpin successful cloud transformations. These capabilities provide best practice guidance that helps you improve your cloud readiness

AWS COMPLIANCE

- AWS Compliance empowers customers to understand the robust controls in place at AWS to maintain security and data protection in the AWS Cloud.
- When systems are built in the AWS Cloud, AWS and customers share compliance responsibilities.

COMPUTE

- With AWS compute you pay only for the instance or resource you need, for as long as you use it, without requiring long-term contracts or complex licensing

COST MANAGEMENT

- The AWS Cost Management console has features that you can use for budgeting and forecasting costs and methods for you to optimize your pricing to reduce your overall AWS bill.
- The AWS Cost Management console is integrated closely with the Billing console. Using both together, you can manage your costs in a holistic manner.

DATABASES

- A database is an electronically stored, systematic collection of data. It can contain any type of data, including words, numbers, images, videos, and files.
- You can use software called a database management system (DBMS) to store, retrieve, and edit data. In computer systems, the word database can also refer to any DBMS, to the database system, or to an application associated with the database.

AMAZON EC2 INSTANCE TYPES

- Amazon EC2 provides a wide selection of instance types optimized to fit different use cases.
- Instance types comprise varying combinations of CPU, memory, storage, and networking capacity and give you the flexibility to choose the appropriate mix of resources for your applications.

AWS GLOBAL INFRASTRUCTURE

- The AWS Global Cloud Infrastructure is the most secure, extensive, and reliable cloud platform, offering over 200 fully featured services from data centers globally.
- Whether you need to deploy your application workloads across the globe in a single click, or you want to build and deploy specific applications closer to your end-users with single-digit millisecond latency

AWS PARTNER NETWORK

- The AWS Partner Network (APN) is a global community of partners that leverages programs, expertise, and resources to build, market, and sell customer offerings.
- This diverse network features 100,000 partners from more than 150 countries. As an AWS Partner, you are uniquely positioned to help customers take full advantage of all that AWS has to offer and accelerate their journey to the cloud.

AWS PRESCRIPTIVE GUIDANCE

- Prescriptive Guidance provides time-tested strategies, guides, and patterns to help accelerate your cloud migration, modernization, and optimization projects.
- These resources were developed by AWS technology experts and the global community of AWS Partners, based on their years of experience helping customers realize their business objectives on AWS.

MACHINE LEARNING & AI

- Get deeper insights from your data while lowering costs with AWS machine learning (ML).
- AWS helps you at every stage of your ML adoption journey with the most comprehensive set of artificial intelligence (AI) and ML services, infrastructure, and implementation resources.

MANAGEMENT AND GOVERNANCE

- Management and governance refer to the set of practices, tools, and policies used to efficiently control, oversee, and optimize resources within the AWS environment.
- This encompasses various aspects, including:
 - Identity and Access Management (IAM)
 - Resource Provisioning and Optimization etc.

MIGRATION AND DATA TRANSFER

- The central location to collect server and application inventory data for the assessment, planning, and tracking of migrations to AWS.

NETWORK SERVICES

- It is a cloud computing empire that leverages cloud-based services to provide flexible virtual infrastructure for its customers.
- AWS networking services offer a wide range of databases and networking options which are scalable, on-demand, and available with a few clicks of the mouse.

AWS PRICING CALCULATOR

- AWS Pricing Calculator is a free web-based planning tool that you can use to create cost estimates for using AWS services. You can use AWS Pricing Calculator for the following use cases:
- Model your solutions before building them
- Explore AWS service price points
- Review the calculations behind your estimates
- Plan your AWS spend

AWS PROFESSIONAL SERVICES

- The AWS Professional Services organization is a global team of experts that can help you realize your desired business outcomes when using the AWS Cloud

AWS RE:POST

- AWS re:Post is a cloud knowledge service that helps builders remove technical roadblocks, accelerate innovation, and operate efficiently.
- Knowledge Center content covers the most frequent questions and requests from builders.

AWS SDKS

- A software development kit (SDK) is a set of platform-specific building tools for developers.
- You require components like debuggers, compilers, and libraries to create code that runs on a specific platform, operating system, or programming language.
- SDKs put everything you need to develop and run software in one place.

SECURITY

- AWS customers benefit from data centers and network architectures that are built to meet the requirements of the most security-sensitive organizations.

AWS SECURITY BLOG

- The AWS security blog is a great way to help keep you ahead of new challenges, changes and developments relating to all things related to AWS security.
- It is updated regularly with new posts, promoting news, best practices, service features and announcements, technical how-to's, events and much more.

AWS SECURITY CENTER

- The AWS Security Center is a central location from which you can obtain the latest versions of AWS' security whitepaper, receive security updates and where you can report any security concerns.

AWS SHARED RESPONSIBILITY MODEL

- AWS responsibility "Security of the Cloud" - AWS is responsible for protecting the infrastructure that runs all of the services offered in the AWS Cloud. This infrastructure is composed of the hardware, software, networking, and facilities that run AWS Cloud services.
- Customer responsibility "Security in the Cloud" - Customer responsibility is determined by the AWS Cloud services that a customer selects.

AWS SUPPORT PLANS

- AWS Support offers a range of plans that provide access to tools and expertise that support the success and operational health of your AWS solutions.
- All support plans provide 24/7 access to customer service, AWS documentation, technical papers, and support forums.
- You can choose a support plan for your AWS use case.

AWS SUPPORT CENTER

- AWS Support is one-on-one, fast-response support from experienced technical support engineers.
- The service helps customers use AWS's products and features.
- With pay-by-the-month pricing and unlimited support cases, customers are freed from long-term commitments.

STORAGE

- To transform their business, increase agility, reduce costs, and accelerate innovation.
- Choose from a broad portfolio of storage solutions with deep functionality for storing, accessing, protecting, and analyzing your data.

AWS WELL-ARCHITECTED FRAMEWORK

- Helps you understand the pros and cons of decisions you make while building systems on AWS.
- By using the Framework you will learn architectural best practices for designing and operating reliable, secure, efficient, cost-effective, and sustainable systems in the cloud.