







GUDE

SUMMARY:

- · KEY POINTS
- · AWS SERVICES AND THEIR USES
- RESOURCES TO PREPARE FOR THE EXAM

Key Points :

Here's a list of the main points and concepts to focus on for the AWS Cloud Practitioner exam:

1. AWS Global Infrastructure

Topic	Description
Regions and Availability Zones	 Understand what AWS Regions and Availability Zones are and their importance in designing resilient, fault-tolerant architectures.
Edge Locations	Know the role of Edge Locations in delivering content through services like Amazon CloudFront.

2. Core AWS Services

Topic	Description
Compute	Amazon EC2 (Elastic Compute Cloud), AWS Lambda (Serverless compute), Amazon ECS/EKS (Containers).
Storage	Amazon S3 (Scalable object storage), Amazon EBS (Elastic Block Store), Amazon Glacier (Archival storage).
Database	 Amazon RDS (Relational Database Service), Amazon DynamoDB (NoSQL), Amazon Redshift (Data Warehousing).
Networking	VPC (Virtual Private Cloud), Route 53 (DNS), AWS Direct Connect (Private Connectivity).



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3. Security, Identity, and Compliance

Topic	Description
AWS IAM	 Managing users, roles, and permissions.
AWS Shield, AWS WAF	 Understanding DDoS protection and web application firewall services.
Shared Responsibility Model	 Know what AWS is responsible for versus what you, the customer, are responsible for.
Compliance Programs	 Awareness of AWS compliance certifications (e.g., HIPAA, GDPR). AWS best practices.

4. Billing and Pricing

Topic	Description
AWS Free Tier	Familiarize yourself with what services and resources are available for free.
Pricing Models	Understand different pricing models, such as Pay-As- You-Go, Reserved Instances, and Spot Instances.
Cost Management	Tools like AWS Cost Explorer, AWS Budgets, and AWS Trusted Advisor.

Key Points :

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5. Cloud Concepts

Topic	Description
On-Demand Delivery	The ability to provision resources on-demand, without upfront commitment.
Scalability & Elasticity	AWS services can automatically scale up or down based on demand.
High Availability & Fault Tolerance	Design architectures that are resilient and can withstand failures.
Agility & Speed	How cloud computing allows faster innovation and time-to- market.

6. Architecting on AWS

Topic	Description
Well-Architected Framework	Five pillars: Operational Excellence, Security, Reliability, Performance Efficiency, and Cost Optimization.
Design Principles	Design for failure, decouple components, implement elasticity, and automate wherever possible.



Key Points:

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7. Cloud Deployment and Operation

Topic	Description
Infrastructure as Code (IaC)	AWS CloudFormation and its role in automating infrastructure deployment.
Monitoring and Logging	 Tools like Amazon CloudWatch (monitoring and logging), AWS CloudTrail (logging API activity).

8. AWS Support Plans

Topic	Description
Basic, Developer, Business, Enterprise	Understand the features and services offered by each plan.
Trusted Advisor	How it provides real-time guidance to help provision resources following best practices.

9. Application Integration

Topic	Description
Amazon SQS & SNS	Basics of decoupling microservices.
Amazon API Gateway	For managing and deploying APIs.



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10. AWS Cloud Adoption Framework (CAF)

Perspective	Description
Six Perspectives	Business, People, Governance, Platform, Security, and Operations.

11. Migration and Transfer

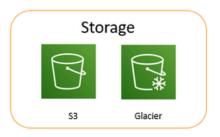
Topic	Description
AWS Migration Services	Basic understanding of AWS Migration Hub, AWS Database Migration Service (DMS).
Data Transfer	 Services like AWS Snowball, AWS Direct Connect for data transfer and migration.

12. Basic Troubleshooting

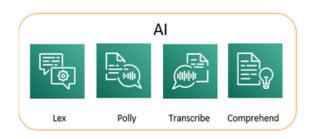
Topic	Description
Common Scenarios	Understand common troubleshooting scenarios related to networking, security, and service limits.

Let's simplify AWS: One service at a time ***



















Analytics Services:

Service	Description
Amazon Athena	An interactive query service that allows you to analyze data stored in Amazon S3 using standard SQL, without requiring server setup.
AWS Data Exchange	A service that makes it easy to subscribe to, use, and share third-party data from trusted data providers.
Amazon EMR	A managed service for large-scale data processing using frameworks like Apache Hadoop, Spark, HBase, and Presto.
AWS Glue	A data integration service that makes it easy to prepare data for analytics with automated ETL capabilities.
Amazon Kinesis	A real-time data processing service for collecting, processing, and analyzing streaming data at scale.
Amazon Managed Streaming for Apache Kafka (Amazon MSK)	A managed service for Apache Kafka that simplifies the creation and management of Kafka clusters.
Amazon OpenSearch Service	A managed service for search and analytics of logs and unstructured data using Elasticsearch and Kibana.
Amazon QuickSight	A business intelligence (BI) service that enables the creation of interactive visualizations and dashboards for data analysis.
Amazon Redshift	• A fully managed columnar data warehouse that allows for large-scale data analysis using SQL.

Application Integration:

Service	Description
Amazon EventBridge	An event bus service that makes it easy to connect applications using events from AWS, SaaS applications, and your own applications.
Amazon Simple Notification Service (Amazon SNS)	 A messaging service that allows sending notifications from the cloud using topics and subscriptions.
Amazon Simple Queue Service (Amazon SQS)	A fully managed message queuing service that enables communication between distributed software components.
AWS Step Functions	An orchestration service that simplifies the coordination of AWS service components using visual workflows.

Business Applications

Service	Description
Amazon Connect	 A cloud-based omnichannel contact center service that allows the creation of call centers to enhance the customer experience.
Amazon Simple Email Service (Amazon SES)	 A reliable, cost-effective, and flexible email service for marketing, notification, and transactional communications.

Containers

Service	Description
Amazon Elastic Container Registry (Amazon ECR)	 A fully managed Docker container registry service that simplifies the storage, management, and deployment of container images.
Amazon Elastic Container Service (Amazon ECS)	 A highly scalable and fast container management service that supports Docker containers.
Amazon Elastic Kubernetes Service (Amazon EKS)	 A fully managed Kubernetes service for deploying, managing, and scaling containerized applications using Kubernetes.

Compute:

Service	Description
AWS Batch	A fully managed batch computing service that allows you to run batch jobs at any scale.
Amazon EC2	 A cloud computing service that provides virtual instances to run applications.
AWS Elastic Beanstalk	A service that simplifies the deployment and management of web applications and services with an automatically managed underlying infrastructure.
Amazon Lightsail	 A simplified cloud service for deploying and managing virtual servers, databases, storage, and networking. (Easy version of EC2).
AWS Local Zones	Extensions of AWS Regions that place compute, storage, database, and other AWS services close to large populations for low latency.
AWS Outposts	A service that brings AWS infrastructure and services on-premises for workloads requiring low latency or local data residency.
AWS Wavelength	A service that integrates AWS compute and storage services with telecom providers' 5G networks for ultra-low latency applications.

HERE IS A (NON-EXHAUSTIVE) LIST OF AWS SERVICES AND THEIR USES MENTIONED IN THE AWS CLOUD PRACTITIONER GUIDE (LINK

HERE).

Cloud Financial Management

Service	Description
AWS Billing Conductor	A service that allows customization of AWS cost management and billing to reflect your internal cost structures.
AWS Budgets	A financial planning service that allows you to set budgets and track your AWS resource costs and usage.
AWS Cost and Usage Report	 A tool that provides detailed reports on your AWS service usage and costs.
AWS Cost Explorer	A tool for visualizing and analyzing AWS costs, allowing you to generate custom reports on usage and spending.
AWS Marketplace	An online platform that allows you to buy and sell software and services that run on AWS.

Customer Engagement

Service	Description
AWS Activate for Startups	 A program that offers resources, AWS credits, and support to startups to help them grow their business on AWS.
AWS IQ	 A platform that connects AWS customers with certified experts to help solve specific problems.
AWS Managed Services (AMS)	 A service that provides operational management of AWS environments, helping reduce risk and improve efficiency.
AWS Support	A service that provides technical assistance, guidance, and best practices for using AWS services effectively.

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Database

Service	Description
Amazon Aurora	 A relational database service compatible with MySQL and PostgreSQL, designed to deliver high performance and availability.
Amazon DynamoDB	 A fully managed NoSQL database that offers fast and predictable read and write performance at any scale.
Amazon MemoryDB for Redis	An in-memory database service compatible with Redis, designed for applications demanding high performance.
Amazon Neptune	A fast, reliable graph database service for applications that use graph models.
Amazon RDS	 A relational database service that makes it easy to set up, operate, and scale relational databases in the cloud.

End-User Computing

Service	Description
Amazon AppStream 2.0	 An application streaming service that allows you to stream desktop applications to any web browser.
Amazon WorkSpaces	A desktop-as-a-service (DaaS) solution that allows you to provision Windows or Linux desktops in the cloud.
Amazon WorkSpaces Web	 A service that provides secure and managed access to web applications from compatible browsers.

Developer Tools

Service	Description
AWS AppConfig	A service that allows developers to configure, validate, and deploy application configurations securely.
AWS CLI	A command-line interface for managing AWS services.
AWS Cloud9	A cloud-based integrated development environment (IDE) for writing, running, and debugging code with just a browser.
AWS CloudShell	A browser-based shell environment for managing, interacting with, and exploring AWS resources.
AWS CodeArtifact	 A software artifact management service for storing, publishing, and sharing software packages used in development.
AWS CodeBuild	A fully managed build service for compiling source code, running tests, and producing software packages.
AWS CodeCommit	A source control service that facilitates secure and scalable code management.
AWS CodeDeploy	A fully managed deployment service that automates software deployments to a variety of AWS compute services.
AWS CodePipeline	A continuous integration and delivery service to automate deployment pipelines.
AWS CodeStar	A service that enables quick development, building, and deployment of applications on AWS with integrated DevOps tools.
AWS X-Ray	A service for performance analysis and debugging of distributed applications.

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Web and Mobile Front-End

Service	Description
AWS Amplify	 A set of tools and services for building and deploying scalable and secure web and mobile applications.
AWS AppSync	 A service that allows you to create flexible GraphQL APIs to synchronize real-time data between applications.
AWS Device Farm	 A service for testing mobile and web applications on a wide range of real devices in the cloud.

Internet of Things (IoT)

Service	Description
AWS IoT Core	 A service that makes it easy to connect IoT devices to the cloud and interact with other AWS services.
AWS IoT Greengrass	A service that allows you to run IoT software locally.

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Machine Learning

Service	Description
Amazon Comprehend	A natural language processing (NLP) service that uses machine learning to discover insights and relationships in text.
Amazon Kendra	 An intelligent enterprise search service that uses machine learning to improve the accuracy and relevance of search results.
Amazon Lex	A service for building conversational interfaces using voice recognition and natural language processing.
Amazon Polly	A text-to-speech service that turns text into lifelike speech, enabling the creation of talking applications.
Amazon Rekognition	 A service that enables image and video analysis to detect objects, people, text, scenes, and activities.
Amazon SageMaker	 A fully managed service that allows developers and data scientists to build, train, and deploy machine learning models at scale.
Amazon Textract	An optical character recognition (OCR) service that automatically extracts text and data from scanned documents.
Amazon Transcribe	An automatic speech recognition service that enables speech-to-text conversion.
Amazon Translate	 An automatic translation service that quickly and accurately translates text between different languages.

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Management and Governance - part 1

Service	Description
AWS Auto Scaling	Automatically adjusts compute resources based on demand to maintain optimal performance at the lowest cost.
AWS CloudFormation	Allows you to model and provision AWS infrastructure resources quickly using template files.
AWS CloudTrail	Tracks API activity in your AWS account, providing event logs for governance, compliance, and auditing.
Amazon CloudWatch	A monitoring service to collect and track metrics, monitor log files, and set alarms.
AWS Compute Optimizer	Recommends optimal compute resources for your workloads to improve performance and reduce costs.
AWS Config	Enables you to assess, audit, and monitor the configurations of your AWS resources to ensure compliance with internal policies.
AWS Control Tower	Simplifies setting up and governing your multi-account AWS environment using best practices.
AWS License Manager	Simplifies managing software licenses from vendors like Microsoft and SAP on AWS.
AWS Organizations	Helps centrally manage and govern multiple AWS accounts within an organization.

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Management and Governance - part 2

Service	Description
AWS Proton	A service that makes it easier to manage the deployment and management of container and serverless applications.
AWS Service Catalog	A service that enables organizations to create and manage catalogs of IT services that are approved for use on AWS.
AWS Systems Manager	 A service that provides a unified interface to manage AWS resources and automate operational tasks across your AWS infrastructure.
AWS Trusted Advisor	A service that provides real-time guidance to help you provision your resources according to AWS best practices.
AWS Well-Architected Tool	 A service that helps you review and improve your cloud-based architecture using best practices.

Media Services

Service	Description
Amazon Interactive Video Service (IVS)	 A managed live streaming service for creating interactive video experiences.
AWS Elemental MediaConvert	 A file-based video transcoding service with broadcast-level features for delivering content across multiple devices.
AWS Elemental MediaLive	 A service that enables the encoding and broadcasting of live video streams.
AWS Elemental MediaPackage	 A service that packages and encrypts video content for live streaming to multiple devices.
AWS Elemental MediaStore	 A storage service optimized for media applications that require high performance for video assets.
AWS Elemental MediaTailor	 A service that enables personalized ad insertion for video streams, ensuring a seamless viewing experience.

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Migration and Transfer

Service	Description
AWS Application Discovery Service	A service that helps you plan your cloud migration by discovering and collecting data on your on-premises resources.
AWS Database Migration Service (DMS)	A service that helps you migrate databases to AWS quickly and securely.
AWS DataSync	A service that simplifies moving data between on-premises storage and AWS cloud storage.
AWS Migration Hub	A service that helps you discover, plan, and track the migration of your applications to AWS.
AWS Server Migration Service (SMS)	A service that automates the migration of on-premises servers to AWS.

Networking and Content Delivery

Service	Description
Amazon API Gateway	A managed service that makes it easy to create, publish, maintain, and secure APIs at any scale.
Amazon CloudFront	A content delivery network (CDN) that securely delivers data, videos, and applications to users worldwide with low latency.
Amazon Route 53	A scalable Domain Name System (DNS) web service that provides reliable and cost-effective routing.
AWS Cloud WAN	A wide area network service that helps you build, manage, and monitor a global network across multiple locations.
AWS Direct Connect	A service that allows you to establish a dedicated network connection from your premises to AWS.
AWS Global Accelerator	A service that improves the performance and availability of your applications with global users by routing traffic through AWS's global network infrastructure.
AWS PrivateLink	A service that allows you to securely access AWS services over a private connection without exposing traffic to the public internet.
AWS Transit Gateway	A service that allows you to connect your Amazon Virtual Private Cloud (VPC) environments and on-premises networks through a central hub.

Security, Identity, and Compliance

Service	Description
Amazon Cognito	A service that enables authentication, authorization, and user management for web and mobile applications.
AWS Artifact	A service that provides access to AWS's compliance documentation and agreements, helping you achieve compliance with industry standards.
AWS Certificate Manager (ACM)	A service that simplifies the creation, management, and deployment of SSL/TLS certificates for securing websites and applications.
AWS CloudHSM	A hardware security module (HSM) service that helps you meet compliance requirements by managing encryption keys in FIPS 140-2 Level 3 validated hardware.
AWS Firewall Manager	A service that simplifies the management of firewall rules across multiple AWS accounts and resources.
AWS Identity and Access Management (IAM)	A service that enables secure access management to AWS services and resources.
Amazon Inspector	A vulnerability management service that automates security assessments to help you identify vulnerabilities and security issues in your AWS workloads> EC2!
Amazon Macie	A data security service that uses machine learning to discover and protect sensitive data stored in AWS> For S3!
AWS Secrets Manager	A service that helps you securely manage, rotate, and retrieve secrets and credentials to protect access to your AWS resources.
AWS Shield	A managed Distributed Denial of Service (DDoS) protection service for safeguarding web applications from DDoS attacks.
AWS Single Sign-On (SSO)	A service that enables single sign-on (SSO) access to multiple AWS accounts and business applications.
AWS WAF	A web application firewall that helps protect web applications from common web exploits.

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Storage

Service	Description
Amazon Elastic Block Store (EBS)	A block storage service for use with Amazon EC2 instances that provides persistent storage.
Amazon Elastic File System (EFS)	A scalable file storage service for use with Amazon EC2 instances.
Amazon FSx	A family of fully managed file systems for Windows, Lustre, and NetApp ONTAP, providing high-performance file storage for various applications.
Amazon S3	A scalable object storage service that offers high durability and availability for storing and retrieving any amount of data.
AWS Backup	A centralized backup service that automates and manages backups across AWS services and on-premises resources.
AWS Storage Gateway	A hybrid cloud storage service that provides on-premises access to virtually unlimited cloud storage.



Contact details:



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