

Functions of each concept listed in the answer above for the AWS Cloud

Practitioner exam:

1. AWS Global Infrastructure - Describes the physical and logical structure of AWS's global data centers, regions, and availability zones.
2. AWS Pricing and Billing - Explains the various pricing models and billing options for AWS services, including the AWS free tier and AWS cost management tools.
3. AWS Identity and Access Management (IAM) - Manages access to AWS resources through user, group, and role permissions and policies.
4. AWS Simple Storage Service (S3) - Provides object storage for files, images, videos, and other unstructured data, with various storage classes and features.
5. AWS Elastic Compute Cloud (EC2) - Provides scalable, on-demand virtual servers in the cloud, with various instance types, operating systems, and features.
6. AWS Database Services - Provides managed database services for relational, non-relational, and in-memory databases, with features like backup, replication, and scaling.
7. AWS Application Integration Services - Provides services for integrating AWS services and other applications, such as messaging, queuing, and workflow.
8. AWS Networking and Content Delivery Services - Provides services for networking and content delivery, including virtual private cloud (VPC), Route 53, CloudFront, and more.
9. AWS Management and Governance Services - Provides services for managing and governing AWS resources, such as CloudFormation, CloudTrail, and Config.
10. AWS Security Services - Provides various security services and features to protect AWS resources, such as IAM, KMS, WAF, and more.
11. AWS Analytics Services - Provides services for data analytics and business intelligence, such as Athena, Redshift, and QuickSight.
12. AWS Artificial Intelligence and Machine Learning Services - Provides services for artificial intelligence and machine learning, such as SageMaker, Rekognition, and Polly.
13. AWS Developer Tools and Services - Provides various tools and services for developers, such as CodeCommit, CodeBuild, and CodeDeploy.

14. AWS Internet of Things (IoT) Services - Provides services for IoT devices and applications, such as IoT Core, Device Farm, and Greengrass.
15. AWS CloudFormation - Provides infrastructure as code (IaC) to manage AWS resources, including templates, stacks, and change sets.
16. AWS CloudTrail - Provides governance, compliance, and auditing features by recording AWS API calls and events.
17. AWS CloudWatch - Provides monitoring and logging services for AWS resources, including metrics, alarms, and logs.
18. AWS Config - Provides a configuration management service that tracks resource configurations and changes.
19. AWS OpsWorks - Provides managed infrastructure services for application deployment, configuration, and management.
20. AWS Service Catalog - Provides a self-service portal for IT services and resources that meet compliance and security standards.
21. AWS Systems Manager - Provides a unified interface for managing AWS resources and applications across multiple AWS services.
22. AWS Trusted Advisor - Provides guidance for optimizing AWS resources, cost, performance, and security.
23. AWS Organizations - Provides management and governance features for multiple AWS accounts, including consolidated billing and organizational policies.
24. AWS Resource Groups - Provides a way to organize and manage AWS resources across multiple accounts and regions.
25. AWS CloudHSM - Provides secure cryptographic key storage and management in the cloud.
26. AWS Direct Connect - Provides a dedicated network connection between an on-premises data center and AWS.
27. AWS Route 53 - Provides domain name system (DNS) services, including domain registration, routing, and health checks.
28. AWS Elastic Load Balancing (ELB) - Provides load balancing services for distributing incoming traffic across multiple EC2 instances or other resources.
29. AWS Auto Scaling - Provides automatic scaling of EC2 instances based on predefined policies, such as CPU utilization or network traffic.
30. AWS Lambda - Provides serverless computing services for running code in response to events, with automatic scaling and pay-per-use pricing.
31. AWS Step Functions - Provides a visual workflow service for coordinating multiple AWS services and custom applications.

32. AWS Batch - Provides managed batch computing services for running batch jobs and parallel workloads in the cloud.
33. AWS Glue - Provides managed extract, transform, and load (ETL) services for data integration and processing.
34. AWS Snow Family - Provides physical devices for securely transferring large amounts of data in and out of AWS, including Snowball, Snowcone, and Snowmobile.
35. AWS Backup - Provides backup and restore services for AWS resources, including EBS volumes, RDS databases, and DynamoDB tables.
36. AWS Certificate Manager (ACM) - Provides managed services for creating, deploying, and renewing SSL/TLS certificates for use with AWS services and external resources.
37. AWS CloudFront - Provides a global content delivery network (CDN) for caching and delivering web content and APIs with low latency and high transfer speeds.
38. AWS Elastic File System (EFS) - Provides managed file storage services for EC2 instances and on-premises resources, with scalable performance and availability.
39. AWS Storage Gateway - Provides hybrid storage services for connecting on-premises storage to AWS services, including file, volume, and tape gateways.
40. AWS Marketplace - Provides a digital catalog of third-party software and services that can be purchased and deployed on AWS.
41. AWS IoT Greengrass - Provides edge computing services for running AWS services and custom applications on IoT devices.
42. AWS IoT Analytics - Provides managed services for analyzing IoT data at scale, including data ingestion, processing, and visualization.
43. AWS IoT Things Graph - Provides a visual tool for building IoT applications and workflows with AWS services and devices.
44. AWS IoT SiteWise - Provides managed services for monitoring and analyzing industrial equipment and processes with IoT sensors and AWS services.
45. AWS IoT Device Defender - Provides managed security and compliance services for IoT devices and applications, including audits, alerts, and mitigation actions.
46. AWS IoT Device Management - Provides managed services for provisioning, configuring, and managing IoT devices at scale, including over-the-air updates and remote control.

47. AWS IoT Core for LoRaWAN - Provides managed services for connecting LoRaWAN devices to AWS services for data processing and analysis.
48. Amazon Connect - Provides cloud-based contact center services for customer service and support, including voice, chat, and email channels.
49. Amazon Chime - Provides video conferencing and messaging services for team collaboration, with screen sharing and virtual meeting rooms.
50. Amazon WorkSpaces - Provides managed desktop-as-a-service (DaaS) for virtual desktops that can be accessed from anywhere, with various operating systems and applications.
51. Amazon AppStream 2.0 - Provides managed application streaming services for delivering desktop applications to users over the internet.
52. Amazon WorkDocs - Provides managed file storage and sharing services for team collaboration, with document versioning and access controls.
53. Amazon WorkMail - Provides managed email and calendar services for team communication, with integration with Microsoft Outlook and mobile devices.
54. Amazon Connect Voice ID - Provides managed voice authentication services for secure and seamless authentication of customers in contact centers.
55. Amazon QuickSight - Provides managed business intelligence (BI) services for data visualization and analysis, with various data sources and integration with AWS services.
56. Amazon Honeycode - Provides managed services for building custom business applications without programming, with drag-and-drop interface and templates.
57. AWS App Runner - Provides managed containerized application services for building and deploying web applications, with automated scaling and continuous integration and deployment (CI/CD).
58. AWS Amplify - Provides managed services and tools for building mobile and web applications, with features such as authentication, analytics, and push notifications.
59. AWS Device Farm - Provides managed mobile app testing services for testing and debugging apps on real devices, with various device models and platforms.

60. AWS RoboMaker - Provides managed services for building and deploying robotic applications, with simulation and testing environments and integration with ROS (Robot Operating System).
61. AWS Serverless Application Repository - Provides a public repository for sharing and deploying serverless applications and components, with pre-built templates and integration with AWS services.
62. Amazon AppFlow - Provides managed services for securely transferring data between AWS services and external systems, with drag-and-drop interface and scheduling options.
63. Amazon EventBridge - Provides a serverless event bus for routing and processing events from AWS services and custom applications, with integration with various AWS services and partners.
64. Amazon Managed Blockchain - Provides managed services for creating and managing blockchain networks on AWS, with support for Hyperledger Fabric and Ethereum.
65. Amazon Quantum Ledger Database (QLDB) - Provides managed ledger database services for creating transparent, immutable, and cryptographically verifiable records, with high throughput and low latency.
66. Amazon Timestream - Provides managed time series database services for storing and querying time-stamped data at scale, with automatic scaling and pay-per-use pricing.
67. Amazon Managed Service for Prometheus - Provides managed services for monitoring and alerting with Prometheus, with integration with AWS services and Grafana for visualization.
68. Amazon HealthLake - Provides managed services for storing, transforming, and analyzing healthcare data in the cloud, with HIPAA eligibility and integration with various healthcare systems.
69. Amazon Lookout for Metrics - Provides managed services for detecting anomalies and identifying root causes in business metrics data, with machine learning algorithms and integration with AWS services.
70. Amazon SageMaker - Provides managed services for building, training, and deploying machine learning models, with various algorithms and frameworks and integration with AWS services.
71. AWS Deep Learning AMIs - Provides pre-configured Amazon Machine Images (AMIs) for deep learning, with popular frameworks and tools such as TensorFlow, PyTorch, and MXNet.

- 72. Amazon Personalize - Provides managed services for building personalized recommendations for users, with machine learning algorithms and integration with AWS services.
- 73. Amazon Forecast - Provides managed services for forecasting future trends and demand, with machine learning algorithms and integration with AWS services.
- 74. AWS Managed Services - Provides managed services for operating and optimizing AWS infrastructure and applications, with automation and best practices.
- 75. AWS Well-Architected Tool - Provides a framework and tool for reviewing and improving the architecture of AWS workloads, with guidance and best practices.
- 76. AWS Control Tower - Provides managed services for setting up and governing multi-account AWS environments, with compliance and security features.
- 77. AWS Organizations - Provides managed services for managing and organizing multiple AWS accounts, with consolidated billing and management features.
- 78. AWS Service Catalog - Provides managed services for creating and managing catalogs of approved AWS services and resources, with governance and compliance features.
- 79. AWS Resource Groups - Provides managed services for creating and managing logical groups of AWS resources, with automation and tagging features.
- 80. AWS License Manager - Provides managed services for tracking and managing software licenses on AWS, with automated discovery and reporting features.
- 81. AWS Systems Manager - Provides managed services for managing and configuring AWS resources at scale, with automation and patch management features.
- 82. AWS OpsWorks - Provides managed services for automating deployment and management of applications on AWS, with support for Chef and Puppet.
- 83. AWS CloudFormation - Provides managed services for provisioning and managing AWS resources and infrastructure as code, with support for YAML and JSON templates.

84. AWS Elastic Beanstalk - Provides managed services for deploying and managing web applications on AWS, with support for various languages and frameworks.
85. AWS CodeDeploy - Provides managed services for automating application deployments on AWS, with support for various platforms and deployment strategies.
86. AWS CodePipeline - Provides managed services for building, testing, and deploying code changes on AWS, with integration with various AWS services and third-party tools.
87. AWS CodeBuild - Provides managed services for building and testing code changes on AWS, with support for various languages and platforms.
88. AWS CodeStar - Provides managed services and tools for developing, building, and deploying applications on AWS, with integrated development environments (IDEs) and templates.
89. AWS X-Ray - Provides managed services for tracing and analyzing distributed applications on AWS, with visualization and troubleshooting features.
90. AWS CloudTrail - Provides managed services for logging and auditing API activity and resource changes on AWS, with compliance and security features.
91. AWS Config - Provides managed services for assessing and auditing resource configurations and compliance on AWS, with automation and remediation features.
92. AWS Security Hub - Provides managed services for aggregating and prioritizing security findings and compliance status on AWS, with integration with various AWS services and third-party tools.
93. Amazon GuardDuty - Provides managed services for detecting and responding to threats and malicious activity on AWS, with machine learning algorithms and integration with AWS services.
94. AWS Shield - Provides managed services for protecting against distributed denial of service (DDoS) attacks on AWS, with automatic mitigation and advanced protection options.
95. Amazon Inspector - Provides managed services for assessing and improving the security and compliance of AWS resources and applications, with automation and reporting features.

- 96.AWS Secrets Manager - Provides managed services for securely storing and retrieving secrets and credentials on AWS, with encryption and rotation features.
- 97.AWS Key Management Service (KMS) - Provides managed services for creating and managing encryption keys and policies on AWS, with integration with various AWS services and APIs.
- 98.AWS Certificate Manager - Provides managed services for provisioning and managing SSL/TLS certificates on AWS, with automation and renewal features.
- 99.Amazon CloudFront - Provides managed services for delivering content and applications to users with low latency and high data transfer speeds, with integration with various AWS services.
- 100. Amazon Route 53 - Provides managed services for routing traffic to AWS resources and external endpoints, with domain registration and management features.