

AWS Comprehensive Cheat Sheet

#	Feature/Service	Description
Cloud Computing (CC)		
1	On-Demand Resources	Access resources (e.g., servers, storage) as needed.
2	Scalability	Dynamically adjust resources to meet workload demands.
3	Pay-as-You-Go	Pay only for the resources you use, no upfront costs.
4	High Availability	Ensures continuous operation with fault-tolerant infrastructure.
5	Elasticity	Auto-scale resources based on real-time demand.
6	Global Reach	Deploy resources globally through cloud infrastructure.
7	Security	Built-in encryption, identity, and access management.
8	Service Models	Includes SaaS, PaaS, and IaaS models.
9	Deployment Models	Public, private, hybrid, and community cloud environments.
10	Cost Optimization	Balance resource usage for cost-efficiency and performance.
AWS - Amazon Web Services		
11	Compute (e.g., EC2)	Virtual servers to run applications.
12	Storage (e.g., S3)	Scalable and secure storage for data and applications.
13	Databases (e.g., RDS)	Managed database services for SQL and NoSQL databases.
14	Networking (e.g., VPC)	Isolated networks and tools to securely connect resources.
15	Serverless (e.g., Lambda)	Run code without provisioning or managing servers.
16	Machine Learning (e.g., SageMaker)	Build, train, and deploy machine learning models at scale.
17	Monitoring (e.g., CloudWatch)	Track resource usage and application performance in real-time.
18	Security (e.g., IAM)	Manage access and permissions to resources.
19	5 Pillars AWS Well-Architected Framework	Operational Excellence, Security, Reliability, Performance Efficiency, Cost Optimization.
20	Global Reach (e.g., Regions)	Deploy applications across multiple regions worldwide for low latency.
21	API's (Application Programming Interface)	Interfaces for programming and interaction with AWS services.
22	AWS Management Console	Web interface to manage AWS resources.
23	AWS Marketplace	Buy or sell software solutions on AWS.

24	Software Development Kits (SDK)	Software to help integrate application languages with AWS.
Shared Responsibility Model		
25	Customer Responsibilities	Security "in" the cloud, including data and applications.
26	AWS Responsibilities	Security "of" the cloud, including infrastructure.
27	Compliance	Meeting regulatory and legal requirements.
28	Audit Readiness	Ensuring proper configurations for audit scenarios.
AWS Global Infrastructure		
29	AWS Regions	Geographically isolated areas for resource deployment.
30	Availability Zones	Multiple data centers in a region for high availability.
31	Edge Locations	Content delivery via Amazon CloudFront.
32	Local Zones	Deploy AWS resources closer to end-users for low-latency apps.
Analytics		
33	Amazon Athena	Query data directly in Amazon S3.
34	Amazon QuickSight	Business intelligence and analytics service.
35	AWS Glue	Managed ETL service for data preparation.
36	AWS Data Pipeline	Automate data workflows.
37	Amazon EMR	Big data processing framework.
Application Integration		
38	Amazon SQS	Managed message queuing service.
39	Amazon SNS	Pub/sub messaging for distributed systems.
40	AWS Step Functions	Coordinate distributed applications using workflows.
41	Amazon EventBridge	Event bus for serverless application integration.
42	AWS AppSync	Build scalable GraphQL APIs.
Compute/Serverless		
43	AWS Batch	Runs batch jobs at scale, provisioning compute resources as needed.
44	Elastic Compute Cloud (EC2)	Scalable virtual servers for a variety of workloads.
45	AWS Elastic Beanstalk	Deploys and scales apps automatically, managing infrastructure.
46	AWS Lambda	Runs event-driven code without managing servers.
47	Amazon Lightsail	Simple virtual servers for developers and small businesses.
48	Amazon Workspaces	Managed cloud desktops for secure access to Windows/Linux.
49	EC2 Instance Types	Various EC2 options (Reserved, On-Demand, Spot) for different needs.

50	Amazon Machine Image (AMI)	Pre-configured templates for EC2 instances.
Containers		
51	Elastic Container Service (ECS)	Managed service for running and scaling Docker containers.
52	Elastic Kubernetes Service (EKS)	Managed Kubernetes service for running containerized applications at scale.
53	AWS Fargate	Serverless compute engine for running containers without managing servers.
54	Amazon EKS Distro	Open-source Kubernetes distribution for running on-premises or in any environment.
55	AWS App Runner	Fully managed service for building and deploying containerized web apps at scale.
56	AWS Proton	Managed service for automating the provisioning of container-based apps.
Database		
57	Amazon Aurora	AWS native serverless MySQL and PostgreSQL service
58	Amazon DynamoDB	NoSQL (non-relational) DB service
59	Amazon ElastiCache	In memory caching service
60	Amazon RDS	Relational DB service supporting popular SQL engines
61	Amazon Redshift	Data warehousing service
62	Amazon Neptune	Fully managed graph database.
Security, Identity, and Compliance		
63	AWS Shield	Managed DDoS protection for AWS resources.
64	AWS Web Application Firewall	Protects web apps from exploits and vulnerabilities.
65	VPN-Virtual Private Network	Secure connection between users and AWS or on-premises resources.
66	AWS Security Hub	Centralized service for security alerts and compliance status.
67	AWS Security Token Service (STS)	Provides temporary security credentials for users and apps.
68	AWS Key Management Service (KMS)	Manages cryptographic keys for data encryption.
69	Secrets Manager	Securely stores and manages API keys, database credentials, etc.
70	AWS Artifact	Access to AWS compliance and audit reports.

71	AWS Certificate Manager	Manages SSL/TLS certificates for secure communication.
72	AWS CloudHSM	Hardware module for managing encryption keys.
73	Amazon Cognito	Identity and authentication service with federated logins.
74	Amazon Detective	Analyzes security data to identify suspicious activities.
75	Amazon GuardDuty	Threat detection to protect AWS accounts.
76	Identity and Access Management (IAM)	Manages user permissions and access to AWS resources.
77	Amazon Inspector	Automates security assessments for EC2 instances.
78	Amazon Macie	Uses ML to discover and protect sensitive data.
79	AWS Firewall Manager	Manages WAF and Shield Advanced protections for apps.
Cost and Billing		
80	AWS Cost and Usage Report	Detailed spreadsheets of AWS costs and usage.
81	Cost Explorer	Visualize and manage AWS costs and usage.
82	AWS Pricing Calculator	Estimate AWS service costs based on usage.
83	AWS Free Tier	Free usage of AWS services with limits.
84	AWS Billing Conductor	Simplifies billing for multiple AWS accounts.
85	AWS Budgets	Set budgets with alerts for cost thresholds.
86	AWS Cost Anomaly Detection	Detects and alerts for cost anomalies.
87	AWS Cost Explorer API	API for programmatic cost management via Cost Explorer
Developer tools		
88	AWS CodeBuild	Compiles code, runs tests, and produces packages.
89	AWS CodeCommit	Secure Git repositories for source control.
90	AWS CodeDeploy	Automates deployment to EC2, Lambda, or on-premises.
91	AWS CodePipeline	Automates CI/CD for apps.
92	AWS CodeStar	Unified UI for AWS software development.
93	AWS Cloud9	Cloud-based IDE for coding and debugging.
94	AWS X-Ray	Visualizes and traces microservices requests.
95	AWS Amplify	Platform to build and deploy apps.
96	AWS AppSync	Managed service for real-time data updates.
Management, Monitoring, Governance		
97	AWS Auto Scaling	Adjusts capacity to maintain performance and minimize cost.

98	AWS Budgets	Sets cost and usage budgets with alerts.
99	AWS CloudFormation	Automates AWS resource setup using code templates.
100	AWS CloudTrail	Logs API calls and user activity for security and compliance.
101	Amazon CloudWatch	Provides real-time monitoring of AWS resources and applications.
102	AWS Config	Evaluates AWS resource configurations for compliance.
103	Amazon EventBridge	Manages and responds to AWS environment changes with events.
104	AWS License Manager	Manages software licenses and tracks usage for compliance.
105	AWS Managed Services	Fully managed service for running AWS infrastructure efficiently.
106	AWS Organizations	Centrally manages multiple AWS accounts and applies governance policies.
107	AWS Systems Manager	Automates and monitors AWS resource operations and configurations.
108	AWS Trusted Advisor	Provides recommendations for optimizing cost, performance, and security.
109	AWS Resource Groups	Organizes AWS resources into logical groups for easier management.
110	AWS Systems Manager Automation	Automates operational tasks like patch management and instance configuration.
111	AWS Service Catalog	Manages and distributes approved AWS resources.
Networking and Content Delivery		
112	Amazon VPC	Isolated network for custom IP ranges and subnets.
113	Network ACL	Stateless traffic control at the subnet level.
114	Security Groups	Stateful firewalls for instance-level control.
115	Amazon CloudFront	Global CDN for faster content delivery.
116	Elastic Load Balancing (ELB)	Distributes traffic for better scalability.
117	AWS Direct Connect	Dedicated low-latency connection to AWS.
118	Amazon Route 53	Scalable DNS service for routing traffic.
119	AWS Global Accelerator	Routes traffic to nearest AWS region.
120	AWS Transit Gateway	Simplifies network with VPC and VPN consolidation.
121	AWS VPN CloudHub	Secure VPN connections between offices and AWS.
122	AWS PrivateLink	Private connectivity to AWS services.
123	Elastic IP	Static IP for dynamic cloud computing.
124	Amazon Lightsail	Easy VPS hosting with pre-configured resources.
125	Amazon EFS	Scalable file storage supporting NFS.
126	AWS Site-to-Site VPN	Managed VPN for secure on-premises to AWS connection.

127	Amazon AppStream 2.0	App streaming to any device.
128	AWS Outposts	Extends AWS infrastructure to on-premises.
129	AWS Network Firewall	Scalable firewall for VPC protection.
130	ELB - Classic	Classic load balancing for EC2 instance traffic.
Storage		
131	Object Storage	For storing unstructured data like files and images.
132	Block Storage	Low-level storage, ideal for databases or frequently updated data.
133	File Storage	File system storage via protocols like NFS and SMB.
134	Amazon S3	Store media files, backups, and website content.
135	S3 Storage Classes	Various tiers to optimize storage costs:
136	S3 Standard	For frequently accessed data with low latency.
137	S3 Intelligent-Tiering	Auto-moves data between access tiers to reduce costs.
138	S3 One Zone-IA	Low-cost storage for infrequent access data.
139	S3 Glacier	Archive storage with retrieval times from minutes to hours.
140	S3 Glacier Deep Archive	Lowest-cost long-term archiving for rare-access data.
141	Amazon EBS	Block storage for EC2 instances with persistent data.
142	EBS Snapshots	Incremental backups of EBS volumes for point-in-time restoration.
143	Amazon EFS	Managed file storage for simultaneous EC2 access.
144	EFS Standard	High-throughput, low-latency general-purpose file storage.
145	EFS Infrequent Access (IA)	Cost-effective storage for infrequently accessed data.
146	Amazon FSx for Windows File Server	Managed Windows file system supporting SMB.
147	Amazon FSx for Lustre	High-performance storage for compute-heavy workloads.
148	AWS Storage Gateway	Hybrid storage for on-premises and cloud integration.
Migration and Transfer		
149	AWS Application Migration Service (MGN)	Automates server migration with minimal downtime.
150	AWS DataSync	Transfers large data to AWS storage.
151	AWS Migration Hub	Tracks migration progress to AWS.
152	AWS Transfer Family	Managed file transfer via SFTP, FTPS, and FTP.
153	AWS Snowcone	Portable edge computing and storage device.
154	AWS Snowball	Rugged device for large data transfers.

155	AWS Snowmobile	Secure container for exabyte-scale transfers.
156	AWS Database Migration Service (DMS)	Migrate databases with minimal downtime.
157	AWS Snow Family	Includes Snowcone, Snowball, Snowmobile for data transfer.
Machine Learning and AI		
158	Amazon SageMaker	Build, train, and deploy ML models at scale.
159	Amazon Rekognition	Image/video analysis for object detection and facial analysis.
160	Amazon Polly	Converts text to lifelike speech.
161	Amazon Comprehend	Analyzes and extracts insights from text using NLP.
162	Amazon Translate	Real-time language translation.
163	Amazon Textract	Extracts text from scanned documents.
164	Amazon Personalize	Creates tailored recommendations based on user behavior.
165	Amazon Lex	Builds conversational interfaces like chatbots.
166	Amazon Forecast	Generates time-series forecasts using historical data.
167	Amazon Polly Neural TTS	High-quality neural text-to-speech conversion.
168	AWS Deep Learning AMIs	Pre-configured AMIs for deep learning frameworks.
169	AWS Inferentia	High-performance chip for cost-efficient ML inference.
170	Amazon Kendra	Intelligent search service for accurate results.
171	Amazon CodeGuru	Automated code reviews for defects and optimizations.