

AWS Cloud Practitioner - Full Cheat Sheet

1. Compute Services

- EC2 - Scalable virtual servers. Key: Elastic, resizable, pay-per-use.
- Lambda - Run code without servers. Key: Event-driven, serverless.
- Elastic Beanstalk - Auto-deploy web apps. Key: PaaS for developers.
- ECS/EKS - Container services. Key: Docker (ECS), Kubernetes (EKS).

2. Storage Services

- S3 - Object storage. Key: Durable (11 9s), scalable, secure.
- EBS - Block storage for EC2. Key: Persistent and high performance.
- EFS - File system storage. Key: Shared, elastic file system.
- Glacier - Archival storage. Key: Cheap, slow retrieval.

3. Database Services

- RDS - Managed SQL DB (MySQL, PostgreSQL, etc.).
- DynamoDB - Managed NoSQL DB. Key: Low-latency, scalable.
- Aurora - High-performance RDS engine. Key: MySQL/PostgreSQL compatible.
- Redshift - Data warehouse. Key: Analytics at petabyte scale.

4. Networking & Content Delivery

- VPC - Isolated network. Key: Subnets, routing, firewall rules.
- CloudFront - Content Delivery Network. Key: Low-latency delivery.
- Route 53 - DNS service. Key: Domain registration, health checks.
- API Gateway - Manage APIs. Key: Secure, scalable entry point.

5. Security & Identity

- IAM - Control users and roles. Key: Least privilege principle.
- KMS - Manage encryption keys. Key: Integrated with AWS services.
- Cognito - User authentication. Key: Federated identities.
- WAF - Web App Firewall. Key: Protect from attacks like SQL injection.

6. Management & Monitoring

- CloudWatch - Monitoring/logging. Key: Metrics, logs, alarms.
- CloudTrail - Track API calls. Key: Governance and audit.
- Trusted Advisor - Cost, performance, security recommendations.
- Config - Resource compliance tracking. Key: Auditing history.

7. Developer Tools

- CodeCommit - Git repositories.
- CodeBuild - Compile, test, and build code.
- CodeDeploy - Automate deployments.
- CodePipeline - CI/CD automation.

8. Migration & Transfer

- Snowball - Large data transfer device. Key: Offline data import/export.
- DMS - Database Migration Service. Key: Live data migration.

- Transfer Acceleration - Fast file upload to S3. Key: Uses edge locations.

9. Pricing & Support

- Pricing Models: On-Demand, Reserved, Spot Instances.
- Free Tier: Always free, 12-month free, trials.
- Cost Explorer - Analyze AWS usage/costs.
- Support Plans: Basic, Developer, Business, Enterprise.

10. Well-Architected Framework

- 5 Pillars: Operational Excellence, Security, Reliability, Performance Efficiency, Cost Optimization.

11. Shared Responsibility Model

- AWS: Security ****of**** the cloud (infra, hardware).
- You: Security ****in**** the cloud (data, IAM, apps).

12. Global Infrastructure

- Region = Geographical area (us-east-1).
- AZ = Data centers in a region.
- Edge Location = CDN endpoints via CloudFront.

13. Disaster Recovery Strategies

- Backup & Restore: Cheapest, slowest recovery.
- Pilot Light: Core infra always running.
- Warm Standby: Partial infra live.
- Multi-site: Fully active in multiple locations.