

GENESIS ITU

AWS Cloud Practitioner Fundamentals

Cloud concepts, core services, security & pricing literacy

College-style student textbook & workbook · Clean · Practical · Professional

Zarco AI Systems LLC · Genesis ITU

How to use this book

Read each chapter in order. Learn formal definitions the way employers and exams use them. Complete pause-and-review prompts. Use only authorized lab systems. This course teaches lawful, professional practice.

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Chapter 1 — Cloud concepts

Cloud shifts CapEx to variable OpEx, enables elasticity, and global reach when designed well.

Elasticity

Ability to scale resources up or down with demand.

Pause and review. *Name two benefits of cloud for a small team.*

Chapter 2 — Global infrastructure

Regions, Availability Zones, and edge locations support resilient design.

Availability Zone

Isolated data center location within a region.

Chapter 3 — Core compute & storage

EC2 for virtual servers, S3 for object storage, EBS for block volumes attached to instances — know the differences.

Object storage

Stores objects (files) accessed by key, highly durable — S3 style.

- Match storage class to access pattern
- Use least privilege on buckets

Chapter 4 — Networking in AWS

VPC, subnets, route tables, security groups, and NACLs form the network boundary model.

Security group

Virtual firewall for instances controlling inbound/outbound rules.

Chapter 5 — Identity & security

IAM users, roles, policies. Root account protection, MFA, and shared responsibility model.

Shared responsibility model

AWS secures the cloud; customer secures what they put in the cloud (varies by service).

Pause and review. *Who configures IAM policies — customer or AWS?*

Chapter 6 — Databases & app services overview

Managed databases and application services reduce undifferentiated heavy lifting. Choose based on workload.

Chapter 7 — Billing, pricing, support

Pay for what you use, reserved options, and cost visibility tools. Budgets prevent surprises.

- Enable billing alerts
- Tag resources for cost allocation

Chapter 8 — Architect literacy & next steps

Design for failure, decouple tiers, and practice least privilege. Next certs often go Solutions Architect or specialty paths.

Closing

Review every formal definition before practice exams. Continue with labs, instructor video when available, and job-path practice on NodePath or REACH. Genesis ITU wishes you steady progress.

Genesis ITU · Educational use · Authorized systems only