

CLOUD FUNDAMENTALS

CloudComputingTutor
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The one-page cheat sheet — everything cloud conversations are built on

CLOUD COMPUTING = accessing computing services over the internet instead of your own machines.

The killer phrase: CapEx → OpEx. Technology stops being an upfront investment and becomes a utility bill.

SERVICE MODELS — the meal analogy

IaaS

Cook from scratch

Raw resources: VMs, storage, networking. You manage OS + apps. Max control.

e.g. AWS EC2, Azure VMs

PaaS

The meal kit

Infrastructure + build tools provided. You bring only your code and data.

e.g. Heroku, App Engine

SaaS

Order takeout

Provider handles everything. Open a browser and work. Nothing to maintain.

e.g. Gmail, Microsoft 365

DEPLOYMENT MODELS — the housing analogy

PUBLIC

Apartment building

Shared infrastructure, private locked units. Cheapest, most scalable. AWS / Azure / GCP.

PRIVATE

Your own house

Dedicated to one org. Max control. Loved by hospitals, banks, regulators.

HYBRID

House + rented space

Sensitive stays private; public absorbs the rest + traffic spikes.

THE BIG THREE

AWS

The pioneer & leader

Biggest catalog, biggest footprint, biggest cert ecosystem.

AZURE

Enterprise heavyweight

Native Microsoft integration; strongest hybrid story.

GOOGLE CLOUD

The engineer's cloud

Elite at data, ML, containers; open-source friendly.

THE 6 Rs OF MIGRATION

Rehost

lift & shift, unchanged

Replatform

lift & optimize a little

Refactor

rebuild cloud-native

Repurchase

switch product (→ SaaS)

Retain

leave it for now

Retire

delete it (happiest R)

Interview one-liner: "The cloud isn't less secure — it's differently configured. Misconfiguration, not the cloud, causes breaches."

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