Deployment Models of Cloud Computing

1. Public Cloud

Ye model shared environment hota hai.

Example providers: Azure, AWS, GCP.

Multi-tenant environment hota hai: ek hi server par IBM, Myntra, HCL jaise multiple companies ka data securely stored hota hai.

Resources jaise VM, Storage, Networking sab shared hardware par hoti hain.

Yahan logical isolation hoti hai, yani ek customer ke resources dusre se logically separate hote hain.

Cost-effective hota hai kyunki resources shared hote hain.

Aap in services ko internet ke through kahin se bhi access kar sakte ho.

Use Case: Startups ya companies jo fast scaling chahte hain aur upfront cost kam rakhna chahte hain.

2. Private Cloud

Ye model ek dedicated environment hota hai sirf ek organization ke liye.

Single-tenant environment hota hai.

Infrastructure aapke paas ya kisi private data center me ho sakti hai.

Reserved hardware hota hai, shared nahi.

Yahan full isolation hoti hai logical + physical.

High security & compliance ke live use hota hai.

Aap isse mostly intranet ya private network ke through access karte ho.

Costly hota hai kyunki dedicated resources use hote hain.

Use Case: Banks, government orgs, healthcare jahan data privacy aur compliance sabse important hoti hai.

3. Hybrid Cloud

Ye ek combination hota hai Public + Private Cloud ka.

Aap critical workloads ko Private Cloud me rakhte ho, aur general workloads Public Cloud me.

Dono environments aapas me connected hote hain.

Intranet + Internet dono se access possible hota hai.

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Ye model flexibility, cost optimization aur compliance sab provide karta hai.

Workload shift karna bhi aasaan hota hai, jaise DR ke time.

Use Case: Enterprises jinko high security bhi chahiye aur public scalability bhi chahiye.

Bonus Tip for Class

Aise bolna:

Agar aap YouTube ya Gmail use karte ho, toh aap public cloud use kar rahe ho. Agar kisi bank ke paas apna data center hai, toh wo private cloud use karta hai. Aur agar ek hospital apne patients ka data private me aur website public cloud pe rakhta hai, toh wo hybrid cloud use kar raha hai.