

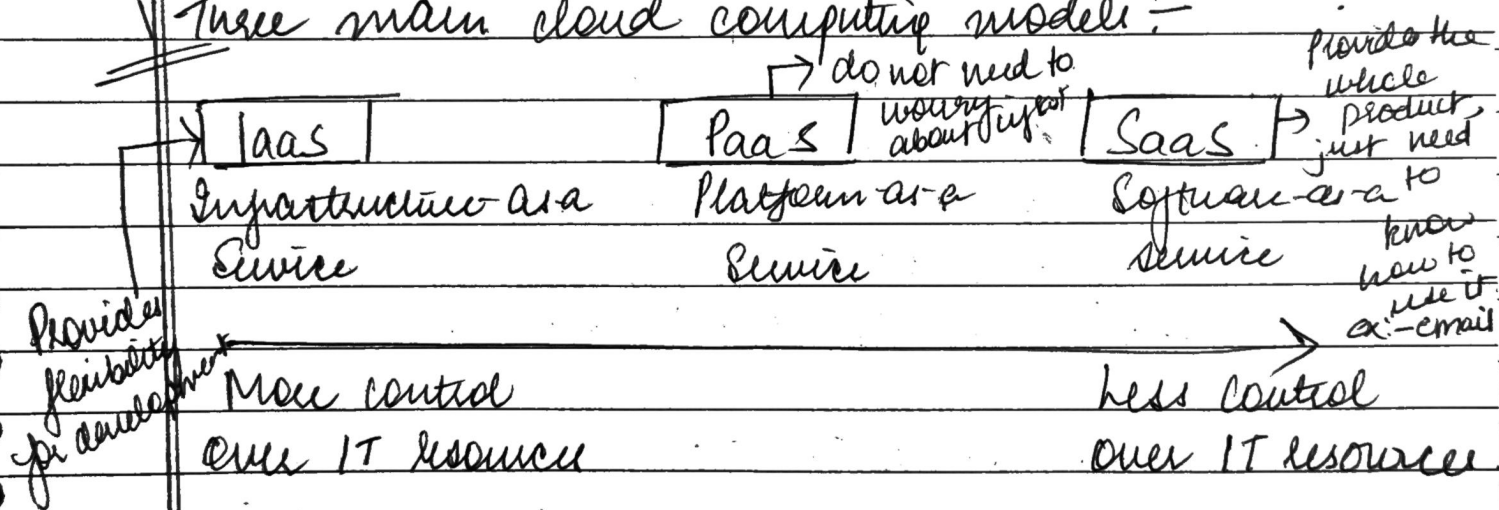
# MODULE 1

1 Cloud computing: — It is on-demand delivery of compute power, database, storage, applications and other IT resource via the internet as with pay-as-you-go pricing

Benefits:-

- Infrastructure as a software
- Software solution → why?
  - They are flexible
  - Can change more quickly, easily than hardware
  - eliminate heavy lifting tasks.

Three main cloud computing models:-



2 Cloud deployment models:-

Cloud (Public) is cloud based application fully deployed in the cloud and all parts of application run in the cloud

Hybrid cloud based connect cloud based resource and existing resources that are not located in cloud.

(Private) On Premises It uses virtualization and resource management tools

## Advantage: Why companies want to move to cloud

- ① Capital expenses are funds that company requires to maintain physical assets such as property, industrial building etc so cloud computing reduces the capital investment by allowing companies only to pay for the amount that they consume therefore saving money on technology.
- ② Massive economies of scale → By using CC you can achieve a lower variable cost than you can get on your own. Since a large no. of users will be using it AWS will cut-down the services pricing.
- ③ Eliminate guessing about your infrastructure capacity needs, with traditional methods you need to ~~block~~ decide storage before deploying application and then later on deal with either perfect resources but expensive or limited resources or capacity. With AWS scaling on demand.
- ④ Increase speed and agility:- Resources are only a click away unlike traditional method that tooks weeks b/w wanting and having resources.
- ⑤ Stop spending money on running and maintaining data centres allowing you to only focus on customers and their needs.

⑥ Go global in minutes → You can deploy your application in multiple AWS region around the world with few clicks.

III Web Services → It is a piece of software that makes itself available over the internet and uses a standardized format such as (XML) Extensible Markup Language or JSON for request and response of an API interaction.

AWS →

- ① Secure cloud platform, offers a broad set of global cloud-based products.
- ② On demand access, (services can be)
- ③ Offer flexibility → reconfigured and updated on demand
- ④ pay only for services you need, as long as you use them.
- ⑤ AWS services work together.

Categories of services :-

- ① Blockchain ② database ③ Application integration ④ Analytics. etc.

\* Services can be chosen based on business goals and technology requirements.

Ways to interact with AWS :- (ways to access core services)

- ① AWS Management Console - provides graphical interface
- ② Command line Interface - provides suite of utilities
- ③ Software Development Kits (SDK) - packages allow accessing AWS in a variety of programming languages.



All three above services are built on REST-like API

IV

The Cloud Adoption Framework —

AWS provides guidance and best ~~solutions~~ practices to help organization to accelerate successful cloud adoption.

6 CAF perspectives: —

Focus on business capabilities	Focus on technical capabilities
Business	Platform
People	Security
Governance	Operations

To migrate IT portfolio to cloud people, process and technology must be in alignment.

① Business perspective →

- ↳ IT finance
- ↳ IT strategy
- ↳ Benefits realization
- ↳ Business risk management.

Ensure IT is aligned with business needs.

② People perspective →

- ↳ Resource management
- ↳ Incentive management
- ↳ Career "
- ↳ Training "

Prioritizes training, staffing and organizational change.

(3) Governance → ensures skills and processes align IT strategy and goals with business strategy and goals.

- ↳ Portfolio management
- ↳ License management.

(4) Platform → describe the architecture of target state environment

- ↳ compute provisioning
- ↳ Network "
- ↳ Storage " etc.

(5) Security → Ensure organization meets its security objectives.

- ↳ IAM
- ↳ Detective control. etc.

(6) Operations → defines how day-to-day, quarter-to-quarter and year-to-year business will be conducted.

- ↳ Service monitoring
- ↳ Reporting etc.