

❖ What is cloud computing?

- Cloud computing is the delivery of computer services over the internet. It allows users to access files and applications online, without the need to store them on their own device.

❖ IaaS Pass SaaS

What is IAAS?

Infrastructure As A Service (IAAS) is means of delivering computing infrastructure as on-demand services. It is one of the three fundamental cloud service models. The user purchases servers, software data center space, or network equipment and rent those resources through a fully outsourced, on-demand service model. It allows dynamic scaling and the resources are distributed as a service. It generally includes multiple-user on a single piece of hardware.

It totally depends upon the customer to choose its resources wisely and as per need. Also, it provides billing management too.

Characteristics of IAAS (Infrastructure as a Service)

- IAAS is like renting virtual computers and storage space in the cloud.
- You have control over the operating systems, applications, and development frameworks.
- Scaling resources up or down is easy based on your needs.

Example of IAAS (Infrastructure As A Service)

- Amazon Web Services
- Microsoft Azure
- Google Compute Engine
- Digital Ocean

What is PAAS?

Platform As A Service (PAAS) is a cloud delivery model for applications composed of services managed by a third party. It provides elastic scaling of your application which allows developers to build applications and services over the internet and the deployment models include public, private and hybrid.

Basically, it is a service where a third-party provider provides both software and hardware tools to the cloud computing. The tools which are provided are used by developers. PAAS is also known as Application PAAS. It helps us to organize and maintain useful applications and services. It has a well-equipped management system and is less expensive compared to IAAS.

Characteristics of PAAS (Platform as a Service)

- PAAS is like a toolkit for developers to build and deploy applications without worrying about infrastructure.
- Provides pre-built tools, libraries, and development environments.
- Developers focus on building and managing applications, while the provider handles infrastructure management.
- It speeds up the development process and allows for easy collaboration among developers.

Examples of PAAS (Platform as a Service)

- AWS Lambda

- Google App Engine
- Google Cloud
- IBM Cloud

What is SAAS?

Software As A Service (SAAS) allows users to run existing online applications and it is a model software that is deployed as a hosting service and is accessed over Output Rephrased/Re-written Text the internet or software delivery model during which software and its associated data are hosted centrally and accessed using their client, usually an online browser over the web. SAAS services are used for the development and deployment of modern applications.

It allows software and its functions to be accessed from anywhere with good internet connection device and a browser. An application is hosted centrally and also provides access to multiple users across various locations via the internet.

Characteristics of SAAS (Software as a Service)

- Applications are ready to use, and updates and maintenance are handled by the provider.
- You access the software through a web browser or app, usually paying a subscription fee.
- It's convenient and requires minimal technical expertise, ideal for non-technical users.

Example of SAAS (Software as a Service)

- Salesforce
- Google Workspace apps
- Microsoft 365
- Trello
- Zoom
- Slack
- Adobe Creative Cloud

Difference between IAAS, PAAS and SAAS

Basis Of	IAAS	PAAS	SAAS
Stands for	Infrastructure as a service.	Platform as a service.	Software as a service.
Uses	IAAS is used by network architects.	PAAS is used by developers.	SAAS is used by the end user.
Access	IAAS gives access to the resources like virtual machines and virtual storage.	PAAS gives access to run time environment to deployment and development tools for application.	SAAS gives access to the end user.

Basis Of	IAAS	PAAS	SAAS
Model	It is a service model that provides virtualized computing resources over the internet.	It is a cloud computing model that delivers tools that are used for the development of applications.	It is a service model in cloud computing that hosts software to make it available to clients.
Technical understanding.	It requires technical knowledge.	Some knowledge is required for the basic setup.	There is no requirement about technicalities company handles everything.
Popularity	It is popular among developers and researchers.	It is popular among developers who focus on the development of apps and scripts.	It is popular among consumers and companies, such as file sharing, email, and networking.
Percentage rise	It has around a 12% increment.	It has around 32% increment.	It has about a 27 % rise in the cloud computing model.
Usage	Used by the skilled developer to develop unique applications.	Used by mid-level developers to build applications.	Used among the users of entertainment.
Cloud services.	Amazon Web Services, sun, vCloud Express.	Facebook, and Google search engine.	MS Office web, Facebook and Google Apps.
Enterprise services.	AWS virtual private cloud.	Microsoft Azure.	IBM cloud analysis.
Outsourced cloud services.	Salesforce	Force.com, Gigaspaces.	AWS, Terremark
User Controls	Operating System, Runtime, Middleware, and Application data	Data of the application	Nothing

Basis Of	IAAS	PAAS	SAAS
Others	It is highly scalable and flexible.	It is highly scalable to suit the different businesses according to resources.	It is highly scalable to suit the small, mid and enterprise level business