

**Cloud computing** is the delivery of computing services including servers, storage, databases, networking, software, analytics, and intelligence over the Internet to offer faster innovation, flexible resources, and economies of scale.

**Characteristic of Cloud computing:**

1. On-demand self-services:
2. Broad network access:
3. Rapid elasticity:
4. Resource pooling:
5. Measured service:

**Limitation of cloud computing:**

- data loss or theft.
- data leakage.
- account or service hijacking.
- insecure interfaces and APIs.

**Cloud computing Deployment model**

1. Public Cloud -As the name suggests, this type of cloud is generally hosted for the client.
2. Private Cloud -As the name suggests this type of cloud is generally hosted on the enterprise
3. Community Cloud -This type of cloud is used and maintained by the group of organization.
4. Hybrid Cloud -This type of cloud is simply the combination of two or more cloud servers

## **Delivery Model:**

**IaaS (Infrastructure as a Service):** IaaS products allow organizations to manage their business resources such as network, servers, and data storage on the cloud.

**PaaS (Platform as a Service):** PaaS products allow businesses and developers to host, build, and deploy consumer-facing apps.

**SaaS(Software as a Service)** give access to the end user. It is service model that provide visualized computing resources over internet.

## **Features of Azure**

- Data Resiliency.
- Data Security.
- Capacity Management.
- Single-Pane Operations.

## **AWS Features**

1. Easy sign-up process
2. Simple and Per hour billing
3. AWS Encompasses 3 important pillars of Cloud computing

## **Features of App Engine**

- Traffic Splitting. .
- All Time Availability. ...
- Ensure Faster Time to Market. ...
- Easy to Use Platform

**Cloudsim** is a framework for modeling and simulation of cloud computing infrastructures and services. CloudSim is a simulation toolkit that supports the modeling and simulation of the core functionality of cloud, like task queue, processing of events.

### **Classes of cloudsim**

- Cloudlet Class Model Description.
- Virtual Machine(Vm) Class Model Description.
- Datacenter Class Model Description.
- DatacenterBroker Class Model Description. .

### **Cloud broker:**

A cloud broker is a third-party individual or business that acts as an intermediary between the purchaser of a cloud computing service and the sellers of that service.

### **Cloudlet:**

A cloudlet is a small-scale data center or cluster of computers designed to quickly provide cloud computing services to mobile devices.

### **What is firebase?**

Firebase is a Backend-as-a-Service (Baas). It provides developers with a variety of tools and services to help them develop quality apps, grow their user base, and earn profit. It is built on Google's infrastructure

### **What is google cloud ? its uses.**

The Google Cloud console provides a web-based, graphical user interface that you can use to manage your Google Cloud projects and resources. When you use the Cloud console, you either create a new project or choose an existing project.

### **What is a IaaS application?**

Infrastructure as a service (IaaS) is a type of cloud computing service that offers essential compute, storage and networking resources on demand, on a pay-as-you-go basis

### **What are the applications of PaaS?**

Example: Google App Engine, Force.com, Joyent, Azure.

### **What are the applications of SaaS?**

There are SaaS applications for fundamental business applications such as email, sales management, customer relationship management.

### **What is virtualization and its uses, levels**

Virtualization relies on software to simulate hardware functionality and create a virtual computer system. This enables IT organizations to run more than one virtual system and multiple operating systems and applications – on a single server.

### **Explain openstack.**

OpenStack is an open source platform that uses pooled virtual resources to build and manage private and public clouds. The tools that comprise the OpenStack platform, called "projects,"

### **What is Salesforce and to create custom application in it.**

Salesforce is a popular CRM tool for support, sales, and marketing teams worldwide. Salesforce services allow businesses to use cloud technology to better connect with partners, customers, and potential customers