CLOUD ARCHITECTURE

Cloud Computing provides us a means by which we can access the applications as utilities, over the Internet. It allows us to create, configure, and customize applications online.

Cloud computing means storing and accessing data and programs on remote servers hosted on the internet.

Data can be files, images, documents, etc.

> Cloud Computing users can access database resources via the internet.
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> Cloud concerns to a Network or Internet. Cloud is something, which is present at remote location. Also it provides services over network on public networks or on private networks like WAN, LAN or VPN.
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> Cloud computing refers to manipulating, configuring and accessing the applications online. Also it intersteds with online data storage, infrastructure and application.
>
> It is both a combination of software and hardware based computing resources delivered as a network service.

These resources include networks, servers, storage, applications, and services.

Cloud computing offers on-demand availability and scalability.

Cloud computing is the delivery of computing services over the internet.

Cloud Computing has operations

1. Storage, backup, and recovery of data
2. Delivery of software on demand
3. Development of new applications and services
4. Streaming videos and audio

Types of Cloud Computing

- 1. Infrastructure as a Service (IaaS)
- 2. Platform as a Service (PaaS)
- 3. Software as a Service (SaaS)

Advantages of Cloud Computing

1. Cost Savings
2. Scalability
3. Accessibility
4. Disaster Recovery
5. Instant availability

Disadvantage of Cloud Computing

1. Security & Privacy
2. Dependece on internet connectivity
3. Vendor lockin
4. Compliance and legal issues
5. Interoperability & Portability
6. Reliable and flexible
7. Downtime

Cloud Computing Architecture

- Front end (fat client, thin client)
- Backend platforms (servers, storage)
- Cloudbased delivery and a network (Internet, Intranet, Intercloud)

Cloud Computing has

1. Reduces cost
2. Employees have better work-life balance
3. More storage

Cloud Hosting

1. Scalability, instant availability, cost savings, reliability
2. Physical security and outsourcing management
3. Cloud hosting provides computing power on demand
4. Outsourcing management reduces workload and concerns
5. Three layers of cloud computing: **Infrastructure, Platform, Application**

Characteristics of Cloud Computing

1. Scalability
2. Instant
3. Save Money
4. Reliability
5. Physical Security
6. Outsource Management