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Experiment No. 6

Aim: To study and implement storage as a service using own cloud.

Theory:

- Explain the concept of cloud storage.

⇒ Cloud storage is made of computer data storage in which digital data is stored on servers in offside location.

- The servers are maintained by third party provider who is responsible for hosting, managing and security data stored on its infrastructure.

- Explain own cloud and its Features.

⇒ Own cloud is self hosted, open source file syncing and sharing server like dropbox, google drive, box and more for the big organization, owncloud give you access to your files, calender, contacts and other data.

- You can sync all between your ~~can sync~~ device and store file with others.

- **Features**

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1) Access your data
2) Sync your data
3) Share your data
4) Versioning
5) Encryption

6) Drag and Drop Upload
7) Viewer for pdf files
8) Application API
9) Application store.

- Advantages

1) Cost efficient
2) Scalability
3) Accessibility
4) Automatic update
5) Redundancy
6) Collaborator
7) Flexibility
8) Managed security.

- Limitations:

1) Dependency on Internet
2) Security concerns
3) Data transfer speed
4) service downtime
5) Regulatory compilances
6) Customization constraints
7) Limited control
8) Data location

- Explain different types of storage like object storage, block level storage.

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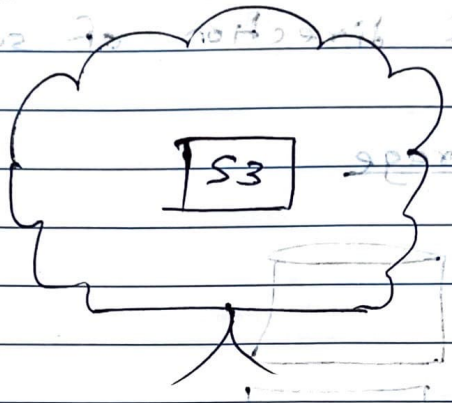
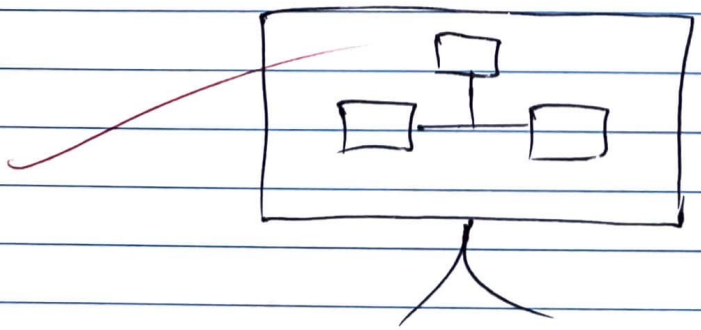
1) Object storage :



Transport : TCP/IP
Interface : HTTP/ REST
Use case : Easily scaling with no limits accessible across LAN and WAN

~~DFS~~ It is an architecture for storing data which section data into unit objects.

2) File storage :



- Transport : TCP/IP
- Interface : NFS / SMB
- Use case : Good performance, file sharing, etc.
- The data is stored in file, files are organized in folders and folders are organized into heirarchy of direction of sub direction.

3) Block storage

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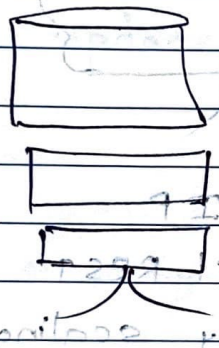

- Transport : FC
- Interface : Direct attached or SAN
- Use cases : Low latency best for structure data

(A)

15/3/2024