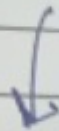


### Unit-III

#### file system

permanent  
storage of information.



Storing a file  
on a secondary storage device.

Sharing of  
information.



Share info  
after create  
a file and  
send to other

or

A file system is a subsystem of an OS that performs file management.

## Distributed file system! →

Distributed file system! → In system we can create a file, delete a file, by using the file system.



organization, storage, retrieval,  
naming, sharing & protection

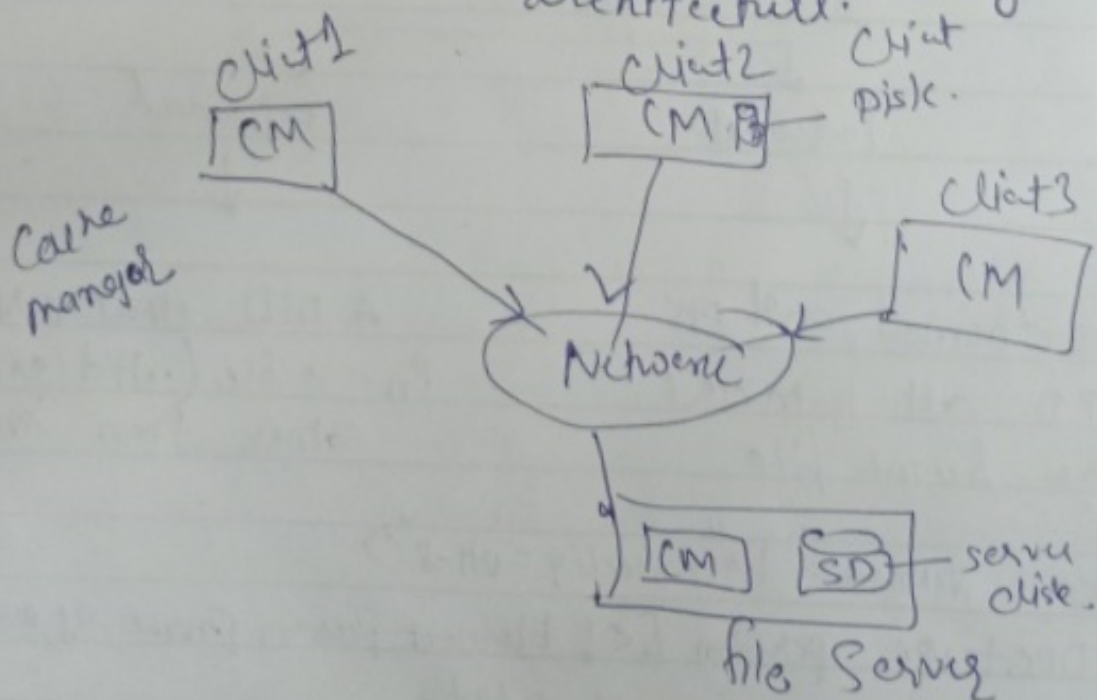
↑  
file system.

## DFS system! →

Distributed file system works on resource management components.  
or →

Architecture of DFS! →  
How the DFS! →

we are having client-server architecture.



## Goals of DFS are

→ Network Transparency →

Time-Sharing

↓  
→ mainframe system.  
↓

Time has been divided in such a way that each & every particular site and process get the fair chance to get particular resource.

→ handles (deallocation and Substitution)

→ High Availability →

Easy to access file.

Client not to worry about physical location of file.



We have some client 1, 2, 3... that are connected with network. file server is also connected with B network.

So, client sent to request for file to network. file server manage all request execute by the every client.

file server → Specialized server dedicated to file management.

↓  
manage all the request to availability of files.

Cache manager → file caching

↓  
When client forwarded the request to server, server provides the remote access to that client for particular file.

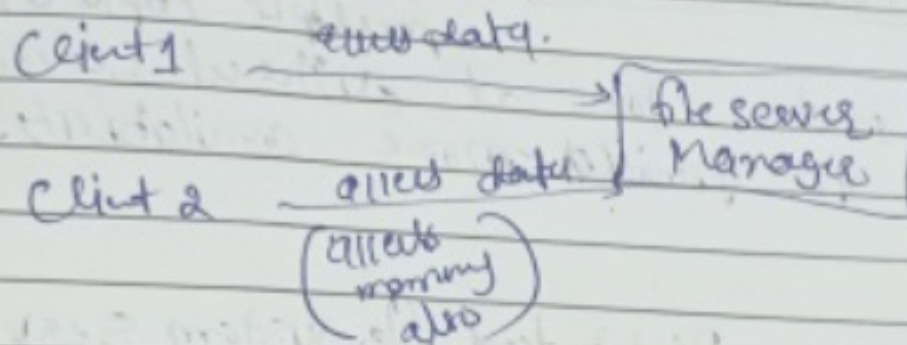
↓  
Such kind of Data migration complete. forwarding the file

↓  
(Data computation) → all computation done at server side and it will give the result to client.

Name Service

maps logical name of requested file into exact physical address.

Example

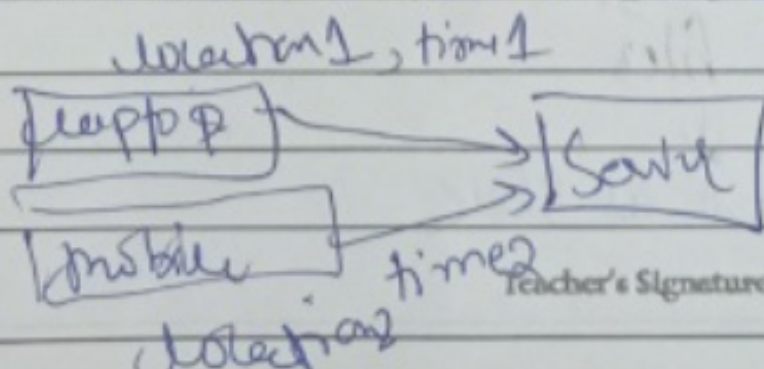


Distributed file system supports the following:

1. Remote Information Sharing →

→ if any node is connected to file system server then it can access that file from any location.

2. User Mobility → Distributed system allow us to work or access at different different time and different location.





(iii) Diskless workstation → If we have less memory in our side then you can access the memory of server (Based on transparency)

(iv) Availability → As file server make multiple copies of files and store at different location. to provide more availability.

### Distributed File System Services

Storage Service

It manages secondary storage device / and manages file store / how many space given to the files

↓  
Stored as Block

File Service

Specific Support  
file → create  
Update  
delete

Create

Name Service

File Name

↓  
Give a Name

↓  
id for a file

↓  
Store in  
directories.