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FACULTY OF ENGINEERING & TECHNOLOGY

BCS-501 Operating System

Lecturer-32

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Directory

- Operations Performed on Directory
- Directory Organization
- Single-Level Directory
- Two-Level Directory
- Tree-Structured Directories

Operations Performed on Directory

- Search for a file
- Create a file
- Delete a file
- List a directory
- Rename a file
- Traverse the file system

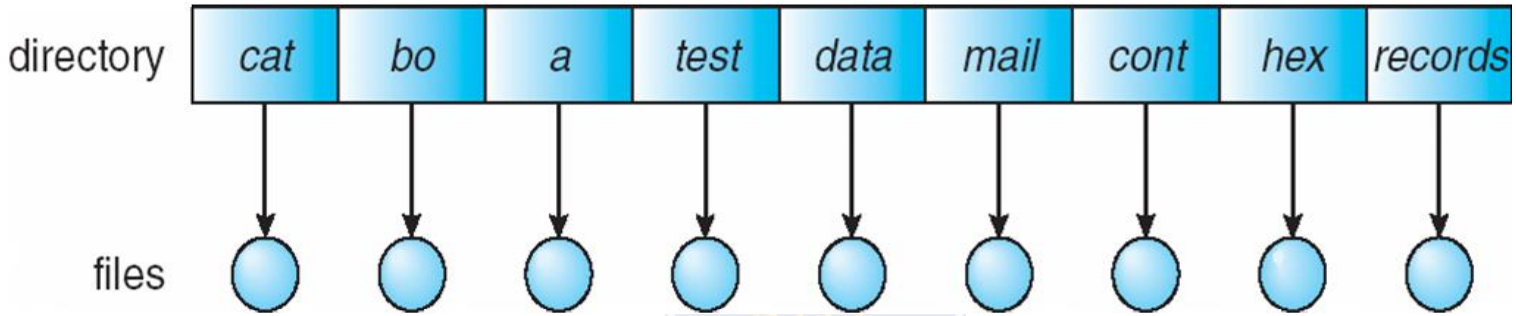
Directory Organization

The directory is organized logically to obtain:----

- Efficiency – locating a file quickly
- Naming – convenient to users
  - Two users can have same name for different files
  - The same file can have several different names
- Grouping – logical grouping of files by properties, (e.g., all Java programs, all games, …)

Single-Level Directory

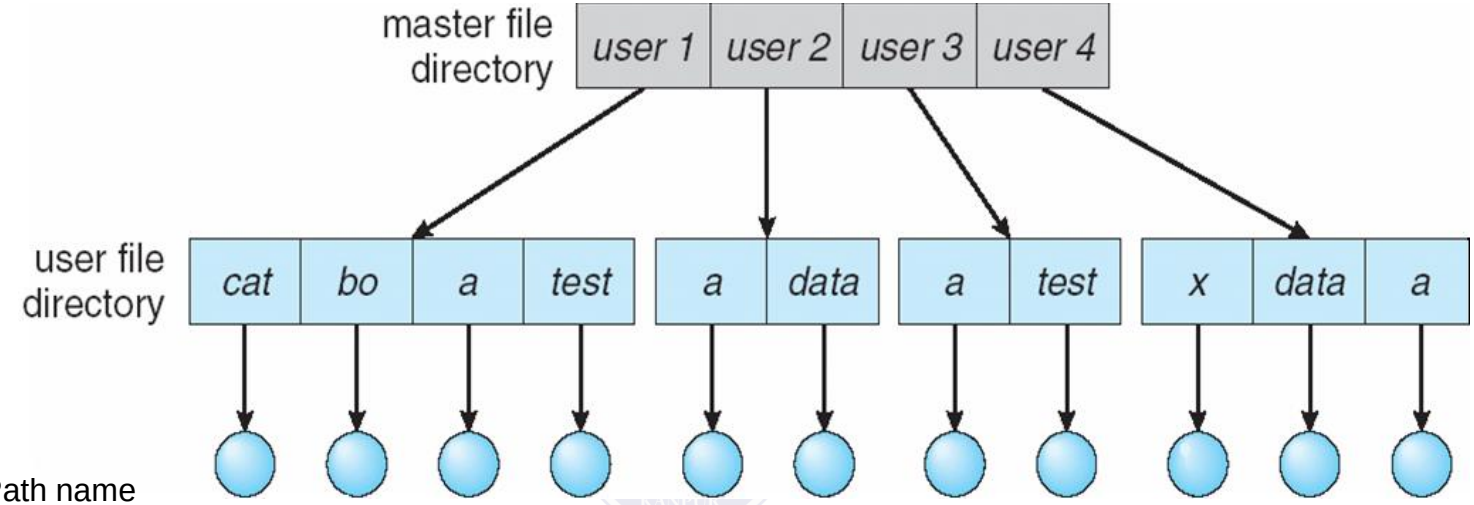
•A single directory for all users



•Naming problem
•Grouping problem

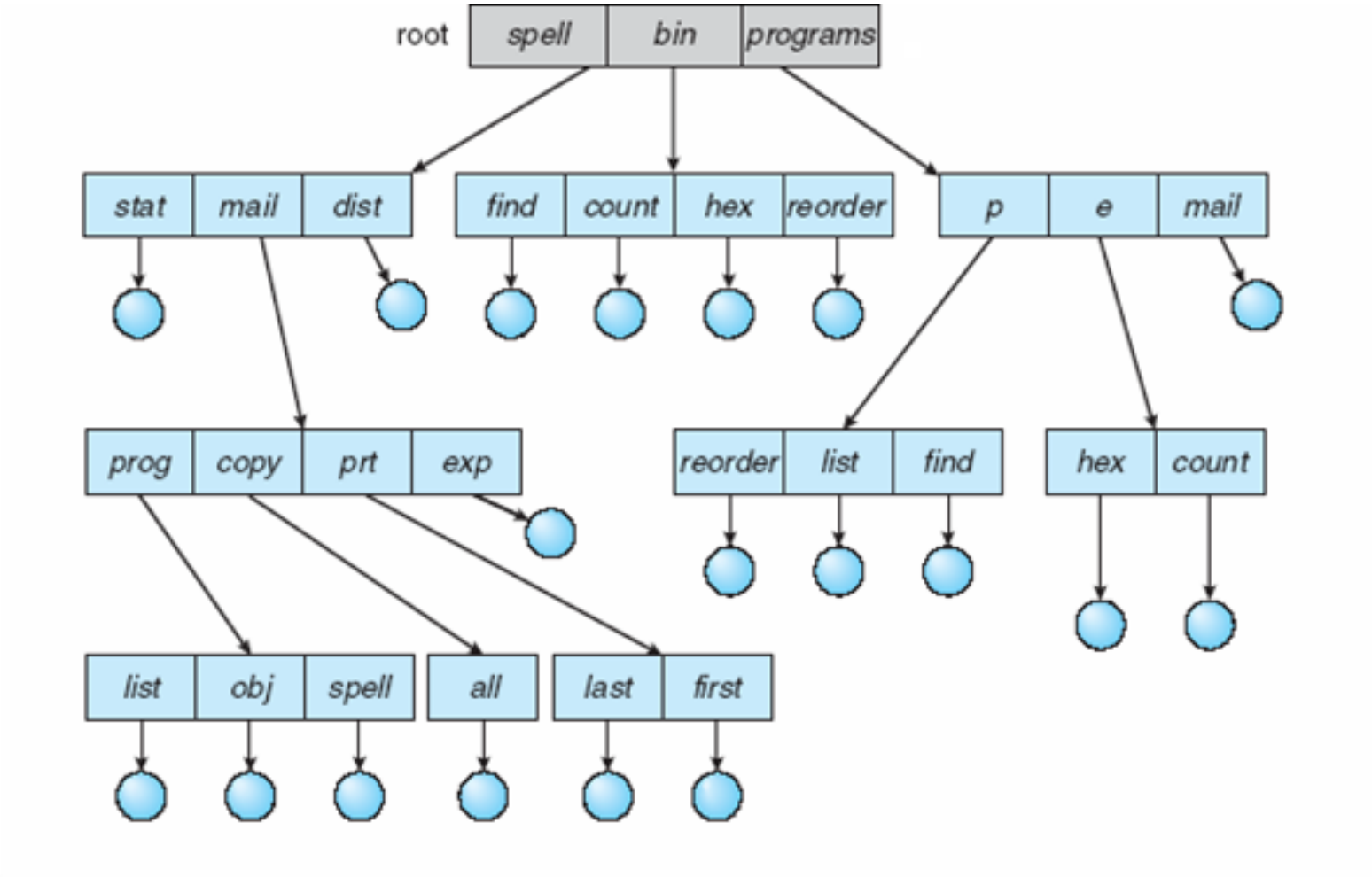
Two-Level Directory

- Separate directory for each user



- Path name
- Can have the same file name for different user
- Efficient searching
- No grouping capability

Tree-Structured Directories



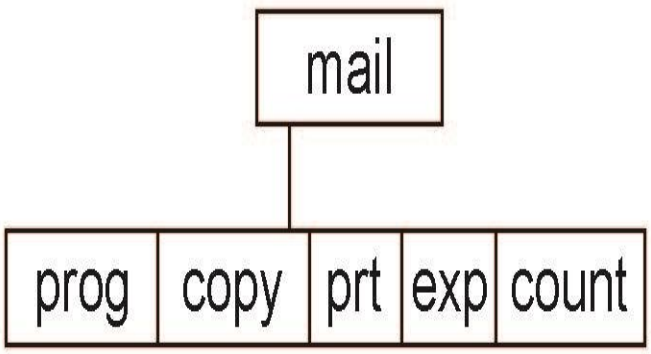
Tree-Structured Directories

Efficient searching

Grouping Capability

Current directory (working directory)
cd /spell/mail/prog
type list
Absolute or relative path name
Creating a new file is done in current directory
Delete a file
rm <file-name>

Creating a new subdirectory is done in current directory
mkdir <dir-name>
Example: if in current directory /mail
mkdir count



MCQ

In the …… file organization, data are collected in the order in which they arrive where each record consists of one burst of data.
A. pile
B. sequential
C. indexed sequential
D. indexed

Disk scheduling includes deciding
A. which should be accessed next
B. order in which disk access requests must be serviced
C. the physical location of the filed.
D. the logical location of the file

Airline reservation systems and inventory control system are the examples of …….. system.
A. pile
B. sequential file
C. indexed sequential file
D. indexed file

In free space management, …….. method has negligible space overhead because there is no need for a disk allocation table, merely for a pointer to the beginning of the chain and the length of the first portion.

A. Bit tables
B. Chained Free Portions
C. Indexing
D. Free Block List

The directory is organized logically to obtain…….

A. Efficiency
B. Naming
C. Both
D. None