

File System

Practical Problem :-

1 KB = 1024 Bytes

UNIX Inode -

$$\text{Total \# of Pointers in one data Block} = \frac{\text{Size of each Data Block}}{\text{Size of Each Block address or Pointers}}$$

$$\Rightarrow \frac{64}{4} = 16$$

Total # of Pointers = # of Pointers in direct Blocks +
Single + Double + Triple.

$$= 4 + 16 + 16^2 + 16^3 = 4372$$

$$\therefore \text{Max Possible File Size} = \# \text{ of total Pointers} \times \text{Block size}$$

$$= 4372 \times 64$$

$$= 279808 \text{ Byte}$$

$$= 273,25 \text{ byte.}$$

Again 1

Given,

Direct Block Address = 8

Single, Double, Triple = 3, 3, 2

Each Block Size = 32 Bytes

n n Address = 4 n

Max Possible File Size = ?

Now,

$$\text{Total \# of Pointers in One Data Block} = \frac{\text{Size of Each Data Block}}{\text{Size of Each Block Address + \# Pointers}}$$

$$= \frac{32}{4} = 8$$

Total # of Pointers = # of Pointers in Direct Block +
Single, Double, Triple

$$= 8 + (2 \times 8) + 2(8)^2 + 2(8)^3$$

$$= 1176$$

Max Possible File Size = # of Total Pointers * Block Size.

$$= 1176 * 32$$

= 37632 Bytes

$$= 37632 \text{ or } 1024$$

= 36.75 KB

Ave

`^ . /new/one/a1^n.
Data Block = 2`