

### **The file and process**

- A file is an array of bytes that stores information. It is also related to another file in the sense that both belong to a single hierarchical directory structure.
- A process is the second abstraction UNIX provides. It can be treated as a time image of an executable file.

### **The system calls**

- The UNIX system-comprising the kernel, shell and application is written in C. Though there are over a thousand commands in the system, they all use a handful of functions, called system calls, to communicate with kernel.
- All UNIX flavors have one thing in common: They use the same system calls. These system calls are described in POSIX specification.

## **FEATURES OF UNIX**

- UNIX: A Multi-user System
- UNIX: A Multitasking System Too
- The Building-Block Approach
- The Unix Toolkit
- Pattern Matching
- Programming Facility
- Documentation

### **UNIX: A Multi-user System**

- UNIX is a multiprogramming system; it permits multiple programs to run and compete for the attention of the CPU. This can happen in two ways:
  - Multiple users can run separate jobs.
  - A single user can also run multiple jobs.
- Several processes constantly running on a UNIX system.