## **Unix File System: Reading and Writing**

- *error*=read(*filedes*, *buffer*, *num\_bytes*)
  - File descriptor maintains a *read-write pointer* pointing to an offset within file
  - read() reads num\_bytes starting from that pointer (into buffer), and automatically advances pointer by num\_bytes
  - error returns the number of bytes read/written, or 0 if EOF, or -1 if error (errno is set)
- error=write(filedes, buffer, num bytes)
  - Writes from buffer into file at position pointer
  - Automatically advances pointer by num\_bytes
- *pos*=lseek(*filedes*, *offset*, *whence*)
  - Moves read-write pointer to position offset within file
  - whence says whether offset absolute or relative (relative to current pointer)