

Filesystems

File Permissions

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Quite apart from issues of privacy, there are many files that are essential to the good running of the OS itself (configuration files, system library files, etc.)

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It is not good if every user of a computer can read or update any file on the system

Quite apart from issues of privacy, there are many files that are essential to the good running of the OS itself (configuration files, system library files, etc.)

So we need to limit access somehow

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Other ways include *append only*, where you can add to the end of a file but otherwise can't update it: useful for logging (you can't accidentally — or by choice — alter the earlier part of the log)

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- list the directory's contents (read)

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Similarly, for a directory

- list the directory's contents (read)
- create/delete/rename a file (write)
- search a directory

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Each user can be in several groups

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Each file has a single group ownership to go alongside the user ownership

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Exercise. Read about ACLs

