File Systems

What does it actually mean when we say data is "persistent" ?

Why does a  userland process needs to use a file system to store/read data on a storage medium (and not just direct IO access) ?

When taking about non-ssd discs, what is the advantage of sequential i/o ?

Is this advantage the same for ssd discs ?

Compare the two "versions" of partitioning (number of partitions, bios support, max disc size)

Why not throw everything into one single monster partition ?

What does /dev/sda3 mean ?

Why can/should you give a hex code of a partition tyoe to a parititon when you create one ?

What form does "a swap" have in Linux ?

Which are the most used file system flavors in current linux ?

What does it **mean**when something is mounted on a certain directory location ?

What is a pseudo file system ?

The tty command tells you which terminals you are currently using. Let's say one user gets as a reply /dev/tty1. and another user gets as a reply /dev/pts/0. what is the difference between those two users ?

What is an nfs type partition ?

What does /etc/fstab do ?

Some directories are present in almost every linux distro. Name them and describe their role briefly.

What is a FCB ?

How so is a directory also a file ?

What is an INODE ?

Whast is the difference between a hard and a soft link ?

What is a superblock ?

Archiving & Compression

Does archive always compress ?

What is the difference between lossless and lossy compression ? give an example of both.

Briefly describe a few archiving/compression tools commonly found in Linux.

Users

What can you find in the /etc/passwd & /etc/shadow files ?

What is so special about system accounts in Linux ?

What are groups in Linux ?

How many groups can a user be a member of/use at once ?

What is the correct way of becoming root ?

Describe the sudo concept

Who's on your system right now ?