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**Module**: **4**- **Linux server - Manage user and**

**Groups and working with file systems**

1. Manage users and groups with commands like useradd, userdel, groupadd, and passwd ?

Ans: Done

1. Explain different file system types in Linux?

Ans: ext4: Modern default, supports large files, journaling.

ext3: Older, with journaling, backward compatible with ext2.

ext2: No journaling, simpler, older.

XFS: High performance, scalable, good for large files.

F2FS: Optimized for flash storage.

NTFS: For Windows compatibility, supports permissions and encryption.

1. Explain File Permission groups in Linux?

Ans: The first set of permissions applies to the owner of the file. The second set of permissions applies to the user group that owns the file. The third set of permissions is generally referred to as "others." All Linux files belong to an owner and a group.

1. How do you switch from one desktop environment to another, such as switching from KDE to Gnome?

Ans: Install the New Desktop Environment:

Debian/Ubuntu: sudo apt install gnome-session gdm3 (for GNOME) or sudo apt install kde-plasma-desktop (for KDE).

Red Hat/CentOS: sudo dnf groupinstall "GNOME Desktop" (for GNOME) or sudo dnf groupinstall "KDE Plasma Workspaces" (for KDE).

1. What are the kinds of permissions under Linux ?

Ans: Read (r): View file contents or list directory contents.

Write (w): Modify or delete files, or add/remove files in directories.

Execute (x): Run files as programs or access directories.

1. What are the different modes when using vi editor?

Ans: Normal Mode: Default mode for navigation and text manipulation. Enter with Esc.

Insert Mode: For editing text. Enter with i, a, etc. Exit with Esc.

Command-Line Mode: For commands like save and quit. Enter with :. Execute with Enter.

Visual Mode: For selecting text. Enter with v, V, or Ctrl+V. Exit with Esc.