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Linux User Management Summary

Effective user management is essential for Linux system administration. It ensures proper access control, system security, and collaboration between users and groups.

🎮 Why User Management Matters

- · Assign appropriate access rights
- Run commands with different privileges (e.g., using sudo or su)
- · Group-based access control for shared resources
- Necessary for auditing and system maintenance

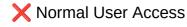


Key Concepts

- · Users can belong to one or more groups
- Groups define shared permissions for multiple users
- Some files (like /etc/shadow) are restricted to root



Running Commands as Another User



cat /etc/shadow # Output: Permission denied

Using sudo for Elevated Privileges

sudo cat /etc/shadow # Access granted if user is in sudoers group

Using su to Switch Users

Switches to the specified user (default is root) su - <username>

sudo is preferred over su for better logging and security.

X User Management Commands

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Command	Description
sudo	Execute a command as another user (usually root)
su	Switch user account (requires password of target user)
useradd	Add a new user
userdel	Delete an existing user
usermod	Modify an existing user
passwd	Change a user's password
addgroup	Add a new group
delgroup	Delete a group

🧪 Example: Adding a New User

1. Add user Alex:

sudo useradd -m alex

1. Set password for Alex:

sudo passwd alex

1. Add Alex to a group (e.g., developers):

sudo usermod -aG developers alex

1. Verify group membership:

groups alex



File Permissions Reminder

- /etc/shadow Stores encrypted passwords. Readable only by root.
- Use sudo to read or modify system-protected files securely.

Tip: Always use sudo instead of logging in directly as root for better accountability and security.

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Managing users properly ensures secure, organized, and scalable Linux system administration.