

Ubuntu Sudo Command Cheat Sheet

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What is Sudo?

`sudo` allows users to run commands with elevated (superuser) privileges. It's like "Run as Administrator" in Windows but much more flexible.

Basic Syntax

```
sudo [options] command
```

Example:

```
sudo apt update
```

Common Sudo Use Cases

- **Update & Upgrade:**

```
sudo apt update && sudo apt upgrade
```

- **Install a Package:**

```
sudo apt install nginx
```

- **Remove a Package:**

```
sudo apt remove nginx
```

- **Restart a Service:**

```
sudo systemctl restart apache2
```

- **Create Directory in Root:**

```
sudo mkdir /protected-folder
```

- **Change File Ownership:**

```
sudo chown john:john /var/www/html/index.html
```

Advanced Sudo Examples

- **Run as Another User:**

```
sudo -u john ls /home/john
```

- **Preserve Environment Variables:**

```
sudo -E env | grep USER
```

- **Run in Background:**

```
sudo -b sleep 60
```

- **Edit sudoers File:**

```
sudo visudo
```

Useful Sudo Options

- `-h`: Show help message
- `-l`: List allowed commands
- `-v`: Extend session timeout
- `-i`: Start root shell
- `-s`: Run shell as superuser
- `-k`: Expire cached credentials
- `--non-interactive`: Avoid password prompts (useful in scripts)

Sudo Environment Variables

- `SUDO_USER`: The invoking username
- `SUDO_UID`: User ID of invoking user
- `SUDO_GID`: Group ID of invoking user
- `SUDO_COMMAND`: The last command executed

Pro Tips

- Use `sudo !!` to rerun the last command with `sudo`.
- Check logs:

```
sudo tail -f /var/log/auth.log
```

- Allow passwordless commands for a user by editing `sudoers`:

```
john ALL=(ALL) NOPASSWD: /usr/bin/apt
```