

The apt (Advanced Package Tool) is used in Debian-based Linux distributions like Ubuntu, Debian, and Linux Mint to install, update, and manage software packages.

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Updating & Upgrading Packages

Command	Description
<code>sudo apt update</code>	Update package lists (without upgrading).
<code>sudo apt upgrade</code>	Upgrade all installed packages.
<code>sudo apt full-upgrade</code>	Upgrade with dependency changes.
<code>sudo apt autoremove</code>	Remove unnecessary packages.
<code>sudo apt clean</code>	Clear downloaded package cache.
<code>sudo apt autoclean</code>	Remove old, unused package files.

Example: Update and Upgrade All Packages

```
sudo apt update && sudo apt upgrade -y
```

Installing & Removing Packages

Command	Description
<code>sudo apt install <package></code>	Install a package.
<code>sudo apt install -y <package></code>	Install without confirmation.

Command	Description
<code>sudo apt remove <package></code>	Remove a package (but keep config files).
<code>sudo apt purge <package></code>	Remove a package and its config files.
<code>sudo apt reinstall <package></code>	Reinstall a package.

Example: Install and Remove VLC

```
sudo apt install vlc
sudo apt remove vlc
```

Searching for Packages

Command	Description
<code>apt search <package></code>	Search for a package.
<code>apt show <package></code>	Show package details.
<code>apt list -installed</code>	List installed packages.
<code>apt list -upgradable</code>	List packages with available updates.

Example: Search for a Web Server

```
apt search apache
```

Managing Repositories

Command	Description
<code>sudo add-apt-repository ppa:<repo></code>	Add a PPA (Personal Package Archive).
<code>sudo apt update</code>	Update after adding a new repository.
<code>sudo add-apt-repository -remove ppa:<repo></code>	Remove a PPA.

Example: Add the Latest VLC PPA

```
sudo add-apt-repository ppa:videolan/stable-daily
sudo apt update
sudo apt install vlc
```

Managing Dependencies

Command	Description
<code>apt depends <package></code>	Show dependencies of a package.
<code>apt rdepends <package></code>	Show reverse dependencies (which packages need it).

Example: Check Dependencies of curl

```
apt depends curl
```

Package Sources & Information

Command	Description
<code>cat /etc/apt/sources.list</code>	View main repository list.
<code>ls /etc/apt/sources.list.d/</code>	View additional repo lists.
<code>`dpkg -l`</code>	<code>grep `</code>

Example: View Installed Version of Git

```
dpkg -l | grep git
```

Fixing Common Issues

Command	Description
<code>sudo apt -fix-broken install</code>	Fix broken dependencies.
<code>sudo dpkg --configure -a</code>	Fix partially installed packages.

Example: Fix Broken Packages

```
sudo apt --fix-broken install
```

Summary

Feature	Command Example
Update Package Lists	<code>sudo apt update</code>
Upgrade Installed Packages	<code>sudo apt upgrade</code>
Install a Package	<code>sudo apt install package-name</code>
Remove a Package	<code>sudo apt remove package-name</code>
Search for a Package	<code>apt search package-name</code>
List Installed Packages	<code>apt list -installed</code>
Fix Broken Dependencies	<code>sudo apt -fix-broken install</code>

This Linux apt Cheat Sheet helps you efficiently install, update, and manage packages in Debian-based systems