



## apt - Debian/Ubuntu

### Basic Package Management

<code>sudo apt update</code>	Update the package lists.
<code>sudo apt upgrade</code>	Upgrade all upgradable packages.
<code>sudo apt install &lt;package_name&gt;</code>	Install a new package.
<code>sudo apt remove &lt;package_name&gt;</code>	Remove a package (leaving configuration files).
<code>sudo apt purge &lt;package_name&gt;</code>	Remove a package and its configuration files.
<code>sudo apt autoremove</code>	Remove automatically installed dependencies that are no longer needed.

### Package Information

<code>apt show &lt;package_name&gt;</code>	Show detailed information about a package.
<code>apt list --installed</code>	List all installed packages.
<code>apt search &lt;keyword&gt;</code>	Search for packages by keyword.
<code>apt depends &lt;package_name&gt;</code>	Show the dependencies of a package.

### Managing Repositories

<code>/etc/apt/sources.list</code>	Main configuration file for APT repositories.
<code>/etc/apt/sources.list.d/</code>	Directory for additional repository files.
<code>sudo add-apt-repository &lt;repository&gt;</code>	Add a new repository (e.g., PPA).
<code>sudo apt update</code>	Update package lists after adding a repository.

## yum - CentOS/RHEL

### Basic Package Management

<code>sudo yum update</code>	Update all packages.
<code>sudo yum install &lt;package_name&gt;</code>	Install a new package.
<code>sudo yum remove &lt;package_name&gt;</code>	Remove a package.
<code>sudo yum autoremove &lt;package_name&gt;</code>	Remove a package and its dependencies.
<code>sudo yum clean all</code>	Clean up cached package data.

### Package Information

<code>yum info &lt;package_name&gt;</code>	Show detailed information about a package.
<code>yum list installed</code>	List all installed packages.
<code>yum search &lt;keyword&gt;</code>	Search for packages by keyword.
<code>yum provides &lt;file_name&gt;</code>	Find which package provides a specific file.

### Managing Repositories

<code>/etc/yum.repos.d/</code>	Directory for yum repository configuration files.
<code>yum repolist</code>	List all enabled yum repositories.
<code>yum install yum-utils</code>	Install yum-utils package, provides useful utilities.
<code>yumdownloader &lt;package_name&gt;</code>	Download an RPM package without installing it (requires yum-utils).

## brew - macOS

### Basic Package Management

<code>brew update</code>	Update Homebrew itself.
<code>brew upgrade</code>	Upgrade all outdated packages.
<code>brew install &lt;package_name&gt;</code>	Install a new package.
<code>brew uninstall &lt;package_name&gt;</code>	Uninstall a package.
<code>brew cleanup</code>	Remove older versions of installed packages.

### Package Information

<code>brew info &lt;package_name&gt;</code>	Show information about a package.
<code>brew list</code>	List installed packages.
<code>brew search &lt;keyword&gt;</code>	Search for packages by keyword.
<code>brew deps &lt;package_name&gt;</code>	Show dependencies for a package.

### Managing Brew

<code>brew doctor</code>	Diagnose potential problems with your brew setup.
<code>brew config</code>	Display Homebrew's configuration info.
<code>brew cask install &lt;cask_name&gt;</code>	Install a cask (GUI application).
<code>brew tap &lt;user/repo&gt;</code>	Add a new tap (unofficial repository).

# Common Operations Across Package Managers

## Finding Packages

<code>apt search</code>	Search for a package by name or description.
<code>&lt;package_name&gt;</code>	
<code>yum search</code>	
<code>&lt;package_name&gt;</code>	
<code>brew search</code>	
<code>&lt;package_name&gt;</code>	
<code>apt list --installed</code>	
<code>yum list installed</code>	
<code>brew list</code>	List all installed packages.

## Updating Packages

<code>apt update</code>	Update the package list and upgrade packages.
<code>&amp;&amp; apt upgrade</code>	
<code>yum update</code>	
<code>brew update</code>	
<code>&amp;&amp; brew upgrade</code>	
<code>apt autoremove</code>	
<code>yum autoremove</code>	
<code>brew cleanup</code>	
	Remove unneeded dependencies and clean up old versions.

## Installing and Removing

<code>apt install</code>	Install a specific package.
<code>&lt;package_name&gt;</code>	
<code>yum install</code>	
<code>&lt;package_name&gt;</code>	
<code>brew install</code>	
<code>&lt;package_name&gt;</code>	
<code>apt remove</code>	
<code>&lt;package_name&gt;</code>	
<code>yum remove</code>	Remove a specific package.
<code>&lt;package_name&gt;</code>	
<code>brew uninstall</code>	
<code>&lt;package_name&gt;</code>	