Homebrew Package manager

START HERE

`brew update`
Refresh Homebrew itself

`brew list`
See what is installed

`brew search <text>`
Find a formula or cask

`brew upgrade`
Upgrade everything outdated

`brew info <name>`
Read details first

`brew uninstall <name>`
Remove a package

`brew install <name>`
Install a package

`brew cleanup`
Free old versions and cache

Taps homebrew-core, cask → `brew update` → **Formula or cask** recipe → `brew install` → **Cellar** versioned files → `link` → **Prefix bin** on your PATH

CONCEPTS

A formula is a command-line package built or poured from a bottle; a cask is a prebuilt GUI app or binary (macOS mostly).

install and upgrade usually run update first, so a fresh brew update is rarely needed before them.

Prefix differs: /opt/homebrew on Apple Silicon, /usr/local on Intel Macs, /home/linuxbrew/.linuxbrew on Linux. Never use sudo for brew.

INSTALL AND REMOVE

`brew install <formula>`
Install a command-line package

`brew install --cask <cask>`
Install a GUI app

`brew uninstall <name>`
Remove a package

`brew reinstall <name>`
Remove and install again

`brew install -n <name>`
Dry run, change nothing

`brew install --build-from-source <formula>`
Compile instead of using a bottle
Dependencies still come as bottles when available.

`brew install --HEAD <formula>`
Build the upstream development version

`brew uninstall --zap --cask <cask>`
Also remove app support files

`brew uninstall --ignore-dependencies <name>`
Remove even if others need it

`brew install --only-dependencies <formula>`
Install just the dependencies

UPDATE AND UPGRADE

`brew update`
Fetch latest formulae and casks

`brew outdated`
List packages with newer versions

`brew upgrade`
Upgrade all outdated packages

UPDATE AND UPGRADE (cont.)

`brew upgrade <name>`
Upgrade one package

`brew upgrade -n`
Preview what would upgrade

`brew upgrade --cask --greedy`
Include casks that self-update
Casks marked auto-updates or version latest are skipped without --greedy.

`brew outdated --json=v2`
Machine-readable outdated list

`brew pin <formula>`
Hold at the current version

`brew unpin <formula>`
Allow upgrades again

`brew list --pinned`
Show pinned formulae

SEARCH AND INSPECT

`brew search <text>`
Search formulae and casks

`brew search --desc <text>`
Search descriptions too

`brew info <name>`
Version, deps, caveats, install state

`brew list`
List installed formulae and casks

`brew list --versions`
Show installed versions

`brew list --cask`
List installed casks only

`brew leaves`
Packages you installed directly

`brew desc <name>`
One-line description

`brew deps --tree <name>`
Dependency tree

`brew uses --installed <name>`
Installed packages needing this

`brew home <name>`
Open the project homepage

`brew info --json=v2 --installed`
Installed state as JSON

`brew log <name>`
Recent changes to a formula

SERVICES

`brew services list`
Services and their status

SERVICES (cont.)

`brew services start <formula>`
Run now and at login/boot

`brew services stop <formula>`
Stop and unregister

`brew services restart <formula>`
Stop and start again

`brew services run <formula>`
Run now, not at login/boot

`sudo brew services start <formula>`
System-wide service as root

`brew services cleanup`
Remove unused service files

Without sudo a service is per-user (launchd or systemd user unit); with sudo it is system-wide.

TAPS

`brew tap`
List added taps

`brew tap <user>/<repo>`
Add a third-party repository

`brew untap <user>/<repo>`
Remove a tap

`brew tap-info <user>/<repo>`
Show tap details

`brew install <user>/<repo>/<formula>`
Install from a tap in one step

CLEANUP AND DOCTOR

`brew cleanup`
Delete old versions and stale downloads

`brew cleanup -n`
Show what cleanup would delete

`brew autoremove`
Remove unneeded dependencies

`brew doctor`
Diagnose common problems

`brew config`
Print setup info for bug reports

`brew cleanup --prune=<days>`
Also drop cache older than N days

`brew --prefix`
Show the install prefix

`brew --cache`
Show the download cache path

CLEANUP AND DOCTOR (cont.)

`brew missing`
Check for missing dependencies

`brew link <formula>`
Link a formula into the prefix

`brew unlink <formula>`
Unlink but keep installed

Install and upgrade run a cleanup afterwards; export HOMEBREW_NO_INSTALL_CLEANUP=1 to skip it.

BREWFILE (BUNDLE)

`brew bundle dump`
Write installed state to Brewfile

`brew bundle`
Install everything in the Brewfile

`brew bundle check`
Are all entries satisfied?

`brew bundle list`
List what the Brewfile declares

`brew bundle cleanup`
Show extras not in the Brewfile
Only previews; add --force to actually uninstall them.

`brew bundle cleanup --force`
Uninstall everything not listed

`brew bundle --file=<path>`
Use a specific Brewfile

`brew bundle dump --force`
Overwrite an existing Brewfile

Brewfile

```
tap "<user>/<repo>"
brew "<formula>"
cask "<cask>"
```

RECIPES

Weekly maintenance

```
brew update
brew outdated
brew upgrade
brew autoremove
brew cleanup
```

Capture and restore a setup

```
brew bundle dump --file=~/Brewfile
# on the new machine
brew bundle --file=~/Brewfile
```

Why is this installed?

```
brew leaves | grep <name>
brew uses --installed <name>
brew deps --tree <name>
```

Hold one package back

```
brew pin <formula>
brew upgrade   # skips it
brew unpin <formula>
```