

APT Package Manager Cheatsheet

Updating and Upgrading Packages

- Refresh package index from repositories

```
sudo apt update
```

- Upgrade installed packages to latest versions

```
sudo apt upgrade
```

- Upgrade installed packages to latest versions

```
sudo apt upgrade
```

- Upgrade with dependency additions/removals

```
sudo apt full-upgrade
```

Installing and Removing Packages

- Install a package (e.g., `nginx`)

```
sudo apt install <package>
```

- Install specific version (e.g., `nginx=1.18.0-0ubuntu1`)

```
sudo apt install <package>=<version>
```

- Remove package, keep config files

```
sudo apt remove <package>
```

- Remove package and config files

```
sudo apt purge <package>
```

- Remove unneeded dependencies

```
sudo apt autoremove
```

Searching and Querying Packages

- Search packages by name/description (e.g., ``nginx``)

```
apt search <keyword>
```

- List all installed packages

```
apt list --installed
```

- List packages with available upgrades

```
apt list --upgradable
```

- Show package details (e.g., ``nginx``)

```
apt show <package>
```

- List available versions across repositories

```
apt madison <package>
```

Managing Repositories

- Add a PPA (e.g., ``ppa:nginx/stable``)

```
sudo add-apt-repository <ppa>
```

- Remove a PPA

```
sudo add-apt-repository --remove <ppa>
```

- Edit ``/etc/apt/sources.list``

```
sudo apt edit-sources
```

- View repository configuration

```
cat /etc/apt/sources.list
```

- List additional repository files

```
ls /etc/apt/sources.list.d/
```

Package Maintenance and Cleanup

- Remove obsolete package files from cache

```
sudo apt autoclean
```

- Clear entire package cache

```
sudo apt clean
```

- Simulate package removal

```
sudo apt remove --dry-run <package>
```

- Fix interrupted installations

```
sudo dpkg --configure -a
```

- Resolve broken dependencies

```
sudo apt -f install
```

Holding and Pinning Packages

- Prevent package upgrades (e.g., `nginx``)

```
sudo apt hold <package>
```

- Allow held package to upgrade

```
sudo apt unhold <package>
```

- Alternative way to hold a package

```
echo "<package> install" | sudo dpkg --set-selections
```

- Pin package versions via priority settings

```
sudo vim /etc/apt/preferences
```

Advanced Commands

- Show package dependencies

```
apt depends <package>
```

- Show packages depending on the specified package

```
apt rdepends <package>
```

- Show installed and available versions, priorities

```
apt-cache policy <package>
```

- Install build dependencies for a package

```
sudo apt build-dep <package>
```

- Download source code for a package

```
sudo apt source <package>
```

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