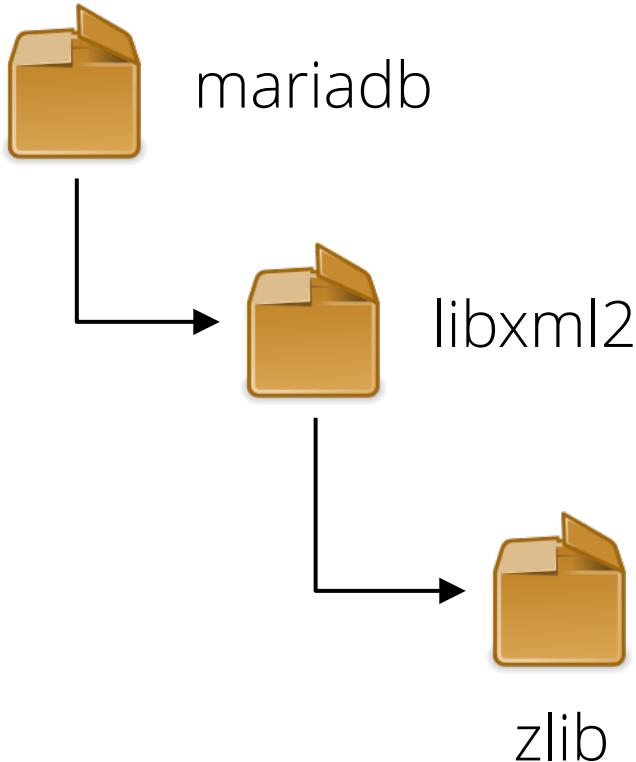


Package managers

COMS10012 / COMSM0085

Software Tools

Packages



search all packages using apt search command and count the number of lines of search results

```
$ apt search . | wc -l  
190508
```

```
$ apt search maria  
mariadb-static-10.3.23-r0  
mariadb-connector-c-dev-  
3.0.10-r0  
mariadb-bench-10.3.23-r0  
mariadb-10.3.23-r0  
mariadb-server-utils-10.3.23-  
r0  
mariadb-backup-10.3.23-r0  
mariadb-doc-10.3.23-r0  
mariadb-openrc-10.3.23-r0  
mariadb-client-10.3.23-r0  
...
```

This will list all packages containing the "maria" keyword, you can check the list to see if there are any packages related to MariaDB.

APT

apt: Advanced Package Tool

.deb files (for Debian)

Debian/Ubuntu/Mint/...: **apt**

Alpine: **apk** (if you see us mistake **apt** for **apk** in any materials, it's because this course used to use Alpine.)

Red Hat: **rpm**

Arch: **pacman**

repositories

The `/etc/apt/sources.list` file contains the configuration of software sources for the apt package manager.

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

```
http://deb.debian.org/debian/
```

Index of /debian/dists/bookworm/main

<u>Name</u>	<u>Last modified</u>	<u>Size</u>
 Parent Directory		-
 Contents-all.gz	2023-12-10 17:34	31M
 Contents-amd64.gz	2023-12-10 17:33	11M
 Contents-arm64.gz	2023-12-10 17:33	11M
 Contents-armel.gz	2023-12-10 17:33	9.2M
 Contents-armhf.gz	2023-12-10 17:33	9.8M
 Contents-i386.gz	2023-12-10 17:33	11M
 Contents-mips64el.gz	2023-12-10 17:33	9.8M
 Contents-mipsel.gz	2023-12-10 17:33	9.7M

Contents-<arch>.gz lists all packages for a system



finding packages

\$ **apt search [-v] [-d] STRING**

\$ **apt info [-a] PACKAGE**

\$ **apt list [-I] PACKAGE**

\$ **apt [COMMAND] --help**

apt search [-v] [-d] STRING: Search for packages containing the specified string and optionally display detailed or debugging information.

apt info [-a] PACKAGE: Display detailed information of the specified software package, optionally displaying information on all versions.

apt list [-I] PACKAGE: List installed packages, or list all packages related to the specified package.



update and upgrade

\$ **sudo apt update**

Download the new list of packages, but don't install anything yet.

update and upgrade are different

\$ **sudo apt upgrade**

Upgrade all installed packages to the latest version.



If you are already as a root, only need to
apt install PACKAGE

installing

\$ sudo apt install PACKAGE [PACKAGE...]

Installs one or more packages and their dependencies.

Vagrant:

\$ cat /vagrant/Vagrantfile

...

apt install emacs-nox

...



Find a command

By complete file path:

```
$ dpkg-query -S /bin/bash
```

The command is used to find which installed package a given file (/bin/bash in this example) belongs to. It returns the name of the package containing the specified file.

The website:

<http://deb.debian.org/debian/>

