# SOFTWARE MANAGEMENT

# SOFTWARE MANAGEMENT

Download package from internet.
For CentOS
To install Tree
# curl https://rpmfind.net/linux/centos/7.9.2009/os/x86_64/Packages/tree-1.6.0-10.el7.x86_64.rpm -o tree-1.6.0- 10.el7.x86_64.rpm
# rpm -ivh tree-1.6.0-10.el7.x86_64.rpm

```
[root@Imran ~]# curl https://rpmfind.net/linux/centos/7.9.2009/os/x86_64/Packages/tree-1.6.0-10.el7.x86_64.rpm -o tree-1.6.0-10.el7.x86_64.rpm
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 47508  100 47508    0     0  57226      0 --:--:-- --:--:-- --:--:-- 57238
[root@Imran ~]# ls
anaconda-ks.cfg   httpd-2.4.6-95.el7.centos.x86_64.rpm   original-ks.cfg   tree-1.6.0-10.el7.x86_64.rpm
[root@Imran ~]# rpm -ivh tree-1.6.0-10.el7.x86_64.rpm
Preparing...                          ################################# [100%]
Updating / installing...
   1:tree-1.6.0-10.el7                ################################# [100%]
[root@Imran ~]# tree /var/log/
/var/log/
├── anaconda
│   ├── anaconda.log
│   ├── ifcfg.log
│   ├── journal.log
│   ├── ks-script-898Bxq.log
│   ├── ks-script-dyarrY.log
│   ├── ks-script-kPd16m.log
│   ├── ks-script-Wnz4e2.log
│   ├── packaging.log
│   ├── program.log
│   ├── storage.log
│   └── syslog
├── audit
│   └── audit.log
├── boot.log
├── btmp
├── chrony
├── cloud-init.log
├── cron
├── dmesg
├── grubby_prune_debug
├── lastlog
├── maillog
├── messages
├── qemu-ga
├── rhsm
├── secure
├── spooler
```

# SOFTWARE MANAGEMENT

To install httpd

# curl https://rpmfind.net/linux/centos/7.9.2009/os/x86_64/Packages/httpd-2.4.6-95.el7.centos.x86_64.rpm -o httpd- 2.4.6-95.el7.centos.x86_64.rpm

# rpm -ivh httpd-2.4.6-95.el7.centos.x86_64.rpm

```
[root@Imran ~]# curl https://rpmfind.net/linux/centos/7.9.2009/os/x86_64/Packages/httpd-2.4.6-95.el7.centos.x86_64.rpm -o httpd-2.4.6-95.el7.centos.x
86_64.rpm
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 2779k  100 2779k    0     0  1943k      0  0:00:01  0:00:01 --:--:-- 1945k
[root@Imran ~]# ls
anaconda-ks.cfg  httpd-2.4.6-95.el7.centos.x86_64.rpm  original-ks.cfg
[root@Imran ~]# rpm -ivh httpd-2.4.6-95.el7.centos.x86_64.rpm
warning: httpd-2.4.6-95.el7.centos.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID f4a80eb5: NOKEY
error: Failed dependencies:
        /etc/mime.types is needed by httpd-2.4.6-95.el7.centos.x86_64
        system-logos >= 7.92.1-1 is needed by httpd-2.4.6-95.el7.centos.x86_64
        httpd-tools = 2.4.6-95.el7.centos is needed by httpd-2.4.6-95.el7.centos.x86_64
        libapr-1.so.0()(64bit) is needed by httpd-2.4.6-95.el7.centos.x86_64
        libaprutil-1.so.0()(64bit) is needed by httpd-2.4.6-95.el7.centos.x86_64
[root@Imran ~]# |
```

# SOFTWARE MANAGEMENT

Due to Dependencies its failing and it will be installed one we install all the dependencies. But what if we have Hundreds of dependencies, And that can be solved easily by other package managers like YUM .
repos. d/ directory. It reads each YUM Repository configuration file to get the information required to download and install new software, resolves software dependencies and installs the required RPM package files. YUM Repository configuration files must: be located in /etc/yum.repos.d

1.  # ls /etc/yum.repos.d/

```
[root@Imran ~]#
[root@Imran ~]# ls /etc/yum.repos.d/
CentOS-Base.repo    CentOS-CR.repo    CentOS-Debuginfo.repo    CentOS-fasttrack.repo    CentOS-Media.repo    CentOS-Sources.repo    CentOS-Vault.repo
```

Shows the usage of YUM Command with options

2.  # yum –help

# SOFTWARE MANAGEMENT

```
[root@Imran ~]#
[root@Imran ~]# yum --help
Loaded plugins: fastestmirror
Usage: yum [options] COMMAND

List of Commands:

check          Check for problems in the rpmdb
check-update   Check for available package updates
clean          Remove cached data
deplist        List a package's dependencies
distribution-synchronization Synchronize installed packages to the latest available versions
downgrade      downgrade a package
erase          Remove a package or packages from your system
fs             Acts on the filesystem data of the host, mainly for removing docs/lanuages for minimal hosts.
fssnapshot     Creates filesystem snapshots, or lists/deletes current snapshots.
groups         Display, or use, the groups information
help           Display a helpful usage message
history        Display, or use, the transaction history
info           Display details about a package or group of packages
install        Install a package or packages on your system
list           List a package or groups of packages
load-transaction load a saved transaction from filename
makecache      Generate the metadata cache
provides       Find what package provides the given value
reinstall      reinstall a package
repo-pkgs      Treat a repo. as a group of packages, so we can install/remove all of them
repolist       Display the configured software repositories
search         Search package details for the given string
shell          Run an interactive yum shell
swap           Simple way to swap packages, instead of using shell
update         Update a package or packages on your system
update-minimal Works like upgrade, but goes to the 'newest' package match which fixes a problem that affects your system
updateinfo     Acts on repository update information
upgrade        Update packages taking obsoletes into account
version        Display a version for the machine and/or available repos.


Options:
  -h, --help          show this help message and exit
  -t, --tolerant      be tolerant of errors
```

# SOFTWARE MANAGEMENT

**To Update all your packages**

**# yum update**

```
[root@Imran ~]# yum update
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
 * base: download.cf.centos.org
 * extras: download.cf.centos.org
 * updates: download.cf.centos.org
Resolving Dependencies
--> Running transaction check
---> Package acl.x86_64 0:2.2.51-14.el7 will be updated
---> Package acl.x86_64 0:2.2.51-15.el7 will be an update
---> Package bash.x86_64 0:4.2.46-33.el7 will be updated
---> Package bash.x86_64 0:4.2.46-34.el7 will be an update
---> Package bind-export-libs.x86_64 32:9.11.4-9.P2.el7 will be updated
---> Package bind-export-libs.x86_64 32:9.11.4-26.P2.el7_9.7 will be an update
---> Package binutils.x86_64 0:2.27-41.base.el7_7.2 will be updated
---> Package binutils.x86_64 0:2.27-44.base.el7 will be an update
---> Package ca-certificates.noarch 0:2019.2.32-76.el7_7 will be updated
---> Package ca-certificates.noarch 0:2021.2.50-72.el7_9 will be an update
---> Package centos-release.x86_64 0:7-7.1908.0.el7.centos will be updated
---> Package centos-release.x86_64 0:7-9.2009.1.el7.centos will be an update
---> Package chkconfig.x86_64 0:1.7.4-1.el7 will be updated
---> Package chkconfig.x86_64 0:1.7.6-1.el7 will be an update
---> Package cloud-init.x86_64 0:18.5-3.el7.centos will be updated
```

# SOFTWARE MANAGEMENT

**To install httpd**

**# yum install httpd -y**

# SOFTWARE MANAGEMENT

**To remove httpd**

**# yum remove httpd -y**

```
[root@Imran ~]# yum remove httpd -y
Loaded plugins: fastestmirror
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.6-97.el7.centos will be erased
--> Finished Dependency Resolution

Dependencies Resolved

================================================================================
 Package          Arch            Version                   Repository     Size
================================================================================
Removing:
 httpd            x86_64          2.4.6-97.el7.centos       @updates      9.4 M

Transaction Summary
================================================================================
Remove  1 Package

Installed size: 9.4 M
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Erasing    : httpd-2.4.6-97.el7.centos.x86_64                          1/1
  Verifying  : httpd-2.4.6-97.el7.centos.x86_64                          1/1

Removed:
  httpd.x86_64 0:2.4.6-97.el7.centos

Complete!
```

# SOFTWARE MANAGEMENT

For Ubuntu

# wget http://archive.ubuntu.com/ubuntu/pool/universe/t/tree/tree_1.7.0-3_amd64.deb -o tree_1.7.0- 3_amd64.deb

# dpkg -i tree_1.7.0-3_amd64.deb

```
root@Imran:~# apt --help
apt 2.0.6 (amd64)
Usage: apt [options] command

apt is a commandline package manager and provides commands for
searching and managing as well as querying information about packages.
It provides the same functionality as the specialized APT tools,
like apt-get and apt-cache, but enables options more suitable for
interactive use by default.

Most used commands:
    list - list packages based on package names
    search - search in package descriptions
    show - show package details
    install - install packages
    reinstall - reinstall packages
    remove - remove packages
    autoremove - Remove automatically all unused packages
    update - update list of available packages
    upgrade - upgrade the system by installing/upgrading packages
    full-upgrade - upgrade the system by removing/installing/upgrading packages
    edit-sources - edit the source information file
    satisfy - satisfy dependency strings

See apt(8) for more information about the available commands.
Configuration options and syntax is detailed in apt.conf(5).
Information about how to configure sources can be found in sources.list(5).
Package and version choices can be expressed via apt_preferences(5).
Security details are available in apt-secure(8).
                                        This APT has Super Cow Powers.
```

# SOFTWARE MANAGEMENT

To update all your package lists

#apt update

```
root@Imran:~# apt update
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
27 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

TO search for a <package> apache2

# apt search apache2

# SOFTWARE MANAGEMENT

```
root@Imran:~# apt search apache2
Sorting... Done
Full Text Search... Done
apache2/focal-updates,now 2.4.41-4ubuntu3.4 amd64 [installed]
  Apache HTTP Server

apache2-bin/focal-updates,now 2.4.41-4ubuntu3.4 amd64 [installed,automatic]
  Apache HTTP Server (modules and other binary files)

apache2-data/focal-updates,now 2.4.41-4ubuntu3.4 all [installed,automatic]
  Apache HTTP Server (common files)

apache2-dev/focal-updates 2.4.41-4ubuntu3.4 amd64
  Apache HTTP Server (development headers)

apache2-doc/focal-updates 2.4.41-4ubuntu3.4 all
  Apache HTTP Server (on-site documentation)

apache2-ssl-dev/focal-updates 2.4.41-4ubuntu3.4 amd64
  Apache HTTP Server (mod_ssl development headers)

apache2-suexec-custom/focal-updates 2.4.41-4ubuntu3.4 amd64
  Apache HTTP Server configurable suexec program for mod_suexec

apache2-suexec-pristine/focal-updates 2.4.41-4ubuntu3.4 amd64
  Apache HTTP Server standard suexec program for mod_suexec

apache2-utils/focal-updates,now 2.4.41-4ubuntu3.4 amd64 [installed,automatic]
  Apache HTTP Server (utility programs for web servers)
```

To install apache2

# apt install apache2 -y

# SOFTWARE MANAGEMENT

```
root@Imran:~# apt install apache2 -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser
The following NEW packages will be installed:
  apache2
0 upgraded, 1 newly installed, 0 to remove and 27 not upgraded.
Need to get 95.5 kB of archives.
After this operation, 542 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu focal-updates/main amd64 apache2 amd64 2.4.41-4ubuntu3.4 [95.5 kB]
Fetched 95.5 kB in 0s (5456 kB/s)
Selecting previously unselected package apache2.
(Reading database ... 64421 files and directories currently installed.)
Preparing to unpack .../apache2_2.4.41-4ubuntu3.4_amd64.deb ...
Unpacking apache2 (2.4.41-4ubuntu3.4) ...
Setting up apache2 (2.4.41-4ubuntu3.4) ...
Processing triggers for systemd (245.4-4ubuntu3.11) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for ufw (0.36-6) ...
root@Imran:~#
```

To remove apache2

# apt remove apache2 -y

# SOFTWARE MANAGEMENT

```
root@Imran:~# apt remove apache2 -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libjansson4 liblua5.2-0 ssl-cert
Use 'apt autoremove' to remove them.
The following packages will be REMOVED:
  apache2
0 upgraded, 0 newly installed, 1 to remove and 27 not upgraded.
After this operation, 542 kB disk space will be freed.
(Reading database ... 64471 files and directories currently installed.)
Removing apache2 (2.4.41-4ubuntu3.4) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for ufw (0.36-6) ...
root@Imran:~#
```