Instructions on how to do Installs, Updates and Test Apps on CentOS

Installs

To install apps, use the following command **sudo apt install** followed by the app that you want to install. I'll provide some examples of recent apps that were installed and the times just for reference.

TMUX

Run **sudo yum install tmux** to start the install as shown below..

```
efelix@192.168.68.76:~$ sudo yum install tmux
[sudo] password for efelix:
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc"
or "subscription-manager" to register.

Last metadata expiration check: 0:00:22 ago on Mon 14 Oct 2024 08:07:59 AM E
DT.
Dependencies resolved.
================================================================================
 Package       Architecture    Version                Repository       Size
================================================================================
Installing:
 tmux          x86_64          3.2a-5.el9             baseos          474 k

Transaction Summary
================================================================================
Install  1 Package

Total download size: 474 k
Installed size: 1.1 M
```

I'm going to take note that I installed TMUX on 10/14/2024 8:09am

EMACS

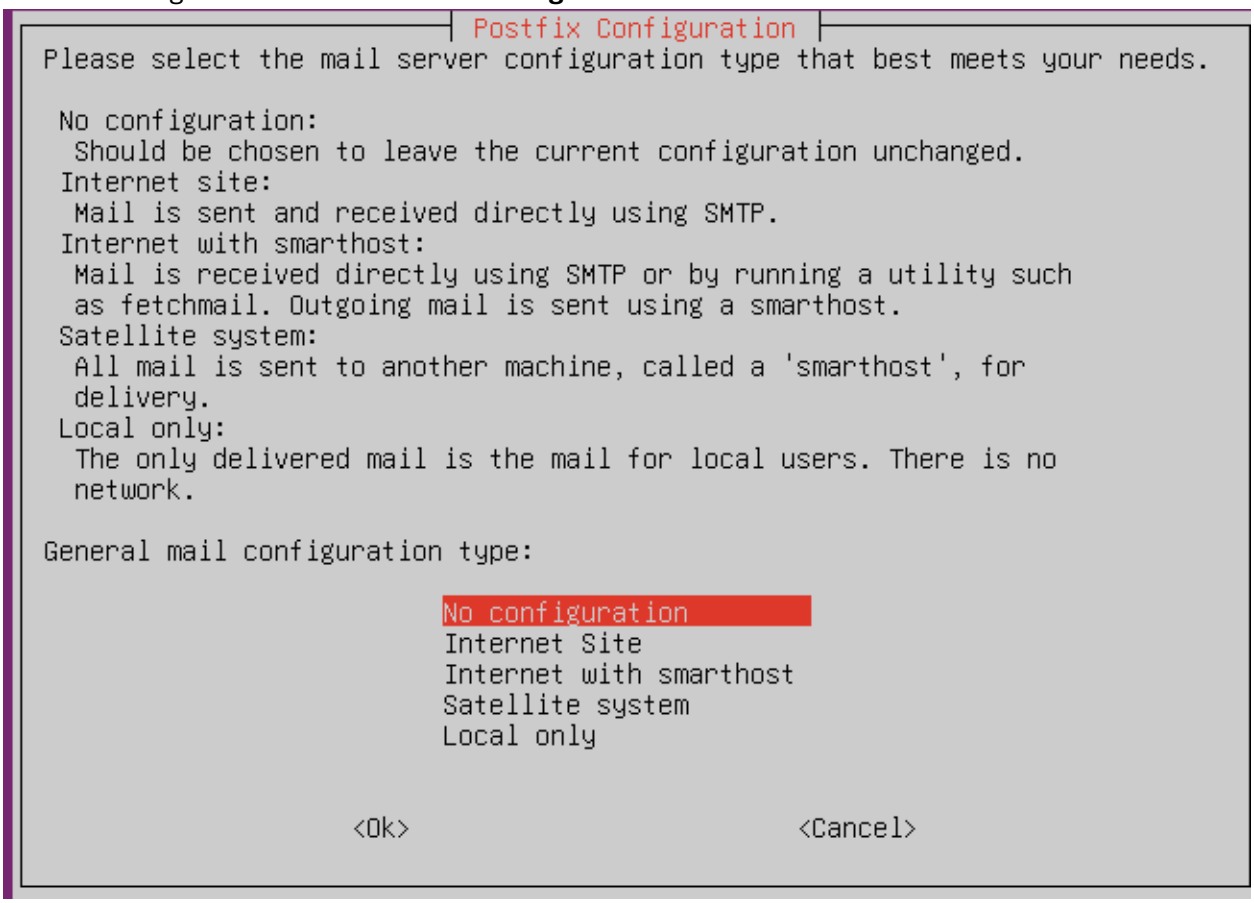
Run **sudo yum install emacs**

I'm going to take note that I installed EMACS on 10/14/2024 8:10am

FAIL2BAN

Run **sudo yum install fail2ban**

During installation I chose **No Configuration.**



I'm going to take note that I installed FAIL2BAN on 10/13/2024 8:49am

COWSAY

Run **sudo yum install cowsay**

I'm going to take note that I installed COWSAY on 10/13/2024 8:50am

LOLCAT

Run **sudo snap install lolcat**

I'm going to take note that I installed LOLCAT on 10/13/2024 8:51am

Repository

Checking Repository

To check the repository for our server by typing **sudo yum repolist** Results are as follows... You see six repositories.

```
[efelix@localhost ~]$ sudo yum repolist
Updating Subscription Management repositories.
repo id              repo name
appstream            CentOS Stream 9 - AppStream
baseos               CentOS Stream 9 - BaseOS
epel                 Extra Packages for Enterprise Linux 9 - x86_64
epel-cisco-openh264 Extra Packages for Enterprise Linux 9 openh264 (From Cisco)
- x86_64
epel-next            Extra Packages for Enterprise Linux 9 - Next - x86_64
extras-common        CentOS Stream 9 - Extras packages
```

To make sure that it is up-to-date I typed in the following **sudo yum update**

```
[efelix@localhost ~]$ sudo yum update
Updating Subscription Management repositories.
Last metadata expiration check: 0:20:10 ago on Mon 14 Oct 2024 09:36:49 AM EDT.
Dependencies resolved.
================================================================================
 Package                  Architecture   Version            Repository    Size
================================================================================
Upgrading:
 epel-next-release        noarch         9-8.el9            epel         7.8 k
 epel-release             noarch         9-8.el9            epel          18 k

Transaction Summary
================================================================================
Upgrade  2 Packages

Total download size: 26 k
```

Will take note of the time and date above for when the repository was updated.

Add/Modifying Repository

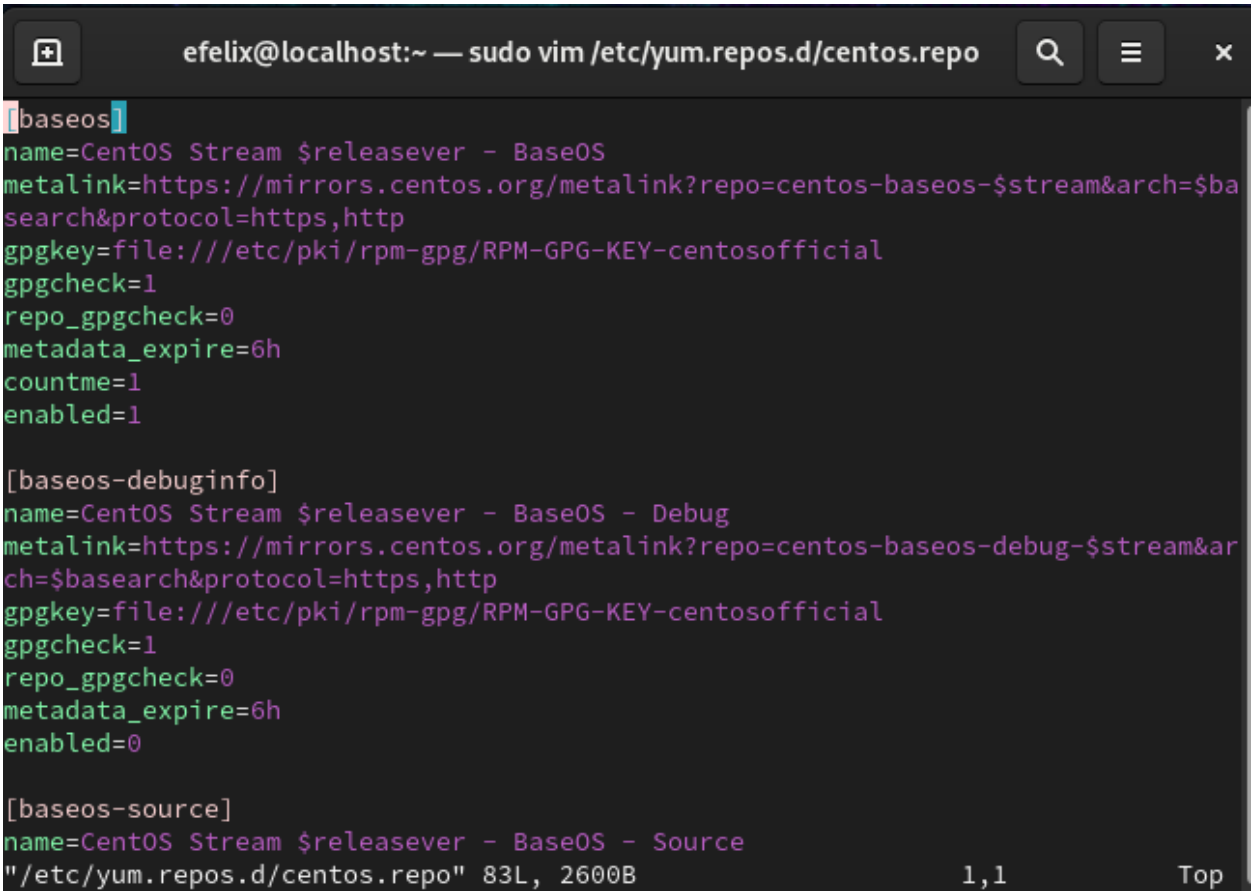
To modify a repository you will have to know the location of where they sit. In CentOS they are located at /etc/yum.repos.d/ So when I ran **ls /etc/yum.repos.d/** I see my six repositories.

To view a repository you replace the listing command (ls) with (cat) to view the file **cat /etc/yum.repos.d/**

```
[efelix@localhost ~]$ ls /etc/yum.repos.d/
centos-addons.repo         epel-next.repo          epel-testing.repo
centos.repo                epel-next-testing.repo  redhat.repo
epel-cisco-openh264.repo   epel.repo
[efelix@localhost ~]$ cat /etc/yum.repos.d/centos.repo
[baseos]
name=CentOS Stream $releasever - BaseOS
metalink=https://mirrors.centos.org/metalink?repo=centos-baseos-$stream&arch=$ba
search&protocol=https,http
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-centosofficial
gpgcheck=1
repo_gpgcheck=0
metadata_expire=6h
countme=1
enabled=1
```

To modify it use the command on the title bar of the image with the repository you want to edit. I chose centos.repo as that is the one that I have been working on by typing

sudo vim /etc/yum.repos.d/centos.repo



To add a repository it would be the same process as you were doing an app install by typing

sudo yum install epel-release as an example. It could be baseos **sudo yum install baseos**

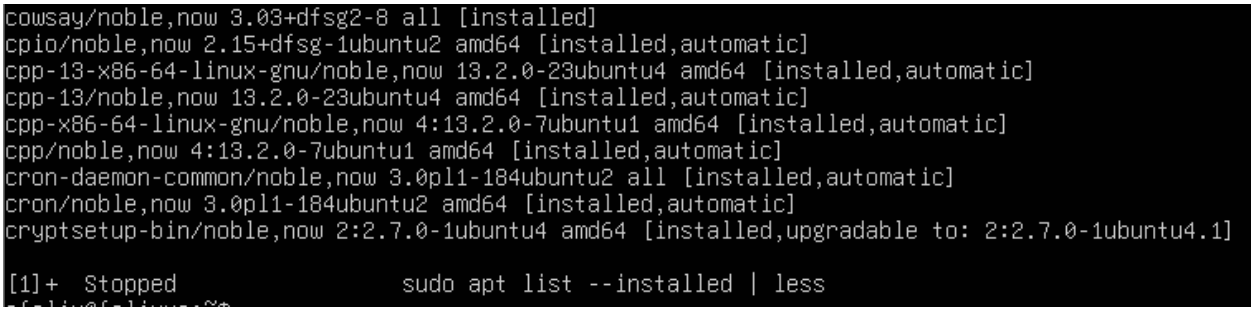
Testing Apps

Was asked to install VIM to replace VI as an editor but the server already had it after I ran **sudo apt install vlm**

```
[efelix@localhost ~]$ sudo yum install vim
[sudo] password for efelix:
Updating Subscription Management repositories.
Last metadata expiration check: 0:28:03 ago on Mon 14 Oct 2024 09:36:49 AM EDT.
Package vim-enhanced-2:8.2.2637-21.el9.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
```

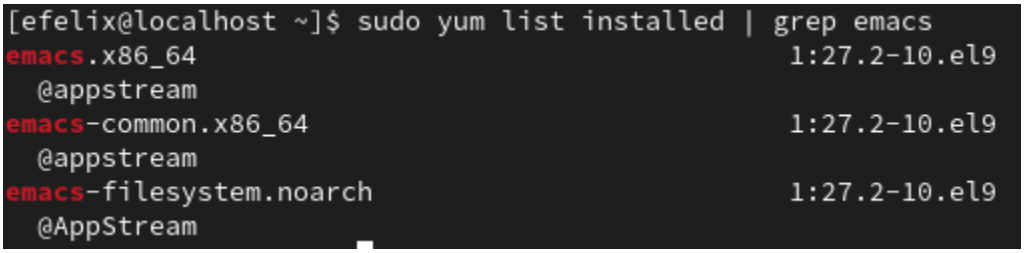
To see all the apps on the server run the command **sudo yum list installed** but since it scrolls the entire list at once we will add | less after the command so we could see it a page at a time as shown below

sudo yum list installed | less



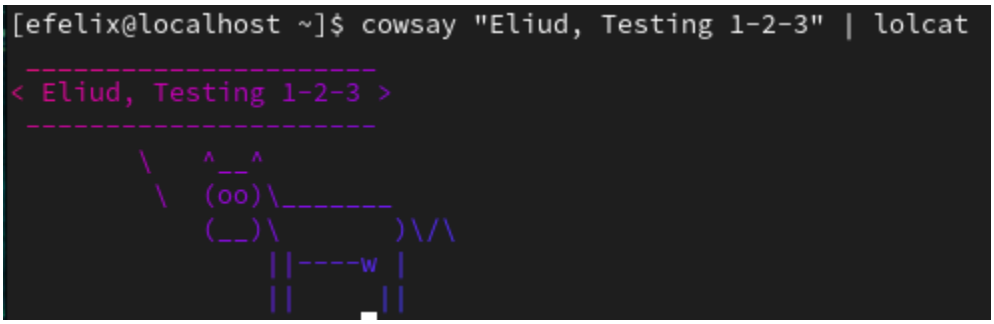
If you look at the top you see the *EMACS* which we added earlier. Another way to make sure your apps are installed without going thru the whole list is by using **| grep emacs** after the command as we are adding to the command and telling grep to just look for emacs

sudo yum list installed | grep emacs



COWSAY/LOLCAT

Now let's test the apps. We will test COWSAY AND LOLCAT together by using the pipe character.

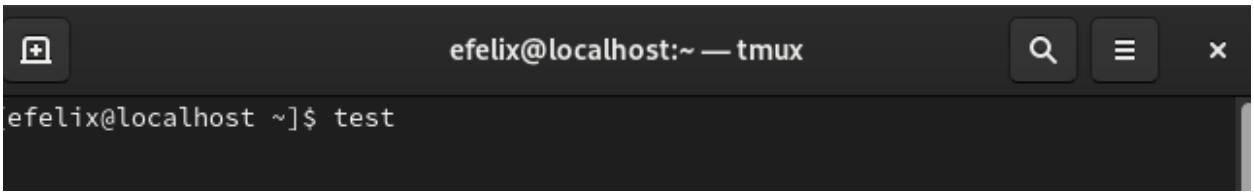


As you can see, we get the cow and the text from COWSAY. We get the color from LOLCAT

Once you run the command it goes back to the prompt, so it closes automatically.

TMUX

Just type **tmux** on the command line to open the program



To close the app type **tmux kill-session**

To see features watch this YouTube video https://www.youtube.com/watch?v=Bfbfj04GDjg

EMACS

Just type **emacs** if you want to use the gui version.

To use the command version either make up a name for a file or modify an existing one by typing the following **sudo emacs /etc/yum.repos.d/centos.repo**

To see features watch this YouTube video
https://youtu.be/48JlgiBpw_I?si=BMmhwPzEDVXslwU5

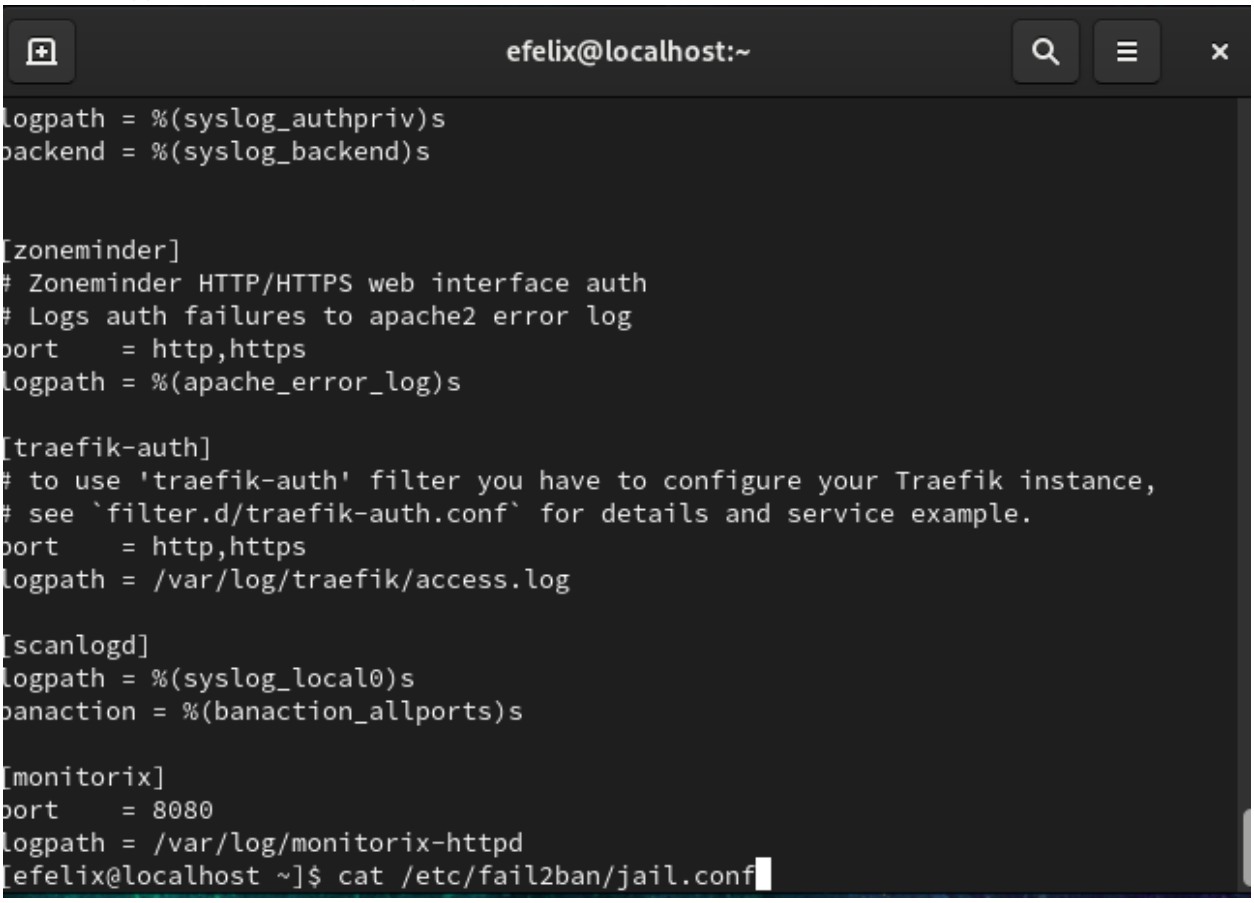
Fail2Ban

Since it's a background service it should be running. You could confirm by typing in the following **sudo systemctl status fail2ban**

If it is not running type **sudo systemctl start fail2ban** to start the service.

Then **sudo systemctl enable fail2ban** to enable the service.

To view it type **cat /etc/fail2ban/jail.conf**



To make edits, first we want to copy the default configuration file to a local configuration file by typing the following **sudo cp /etc/fail2ban/jail /etc/fail2ban.jail.local**

We edit it by typing **sudo vim /etc/fail2ban/jail.local** and then close the editor.

To apply the changes type **sudo systemctl restart fail2ban**

To close Fail2ban type **sudo systemctl stop fail2ban**

To see features watch this YouTube video https://youtu.be/D5PalxvN8Ns