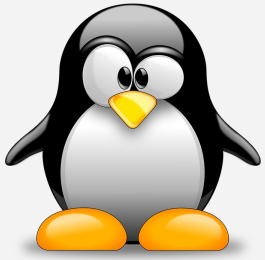


Formation linux avancée

Start now!

GNU+LINUX

Debian

Le plus utilisé

Fedora

Pour être à la pointe de la technologie

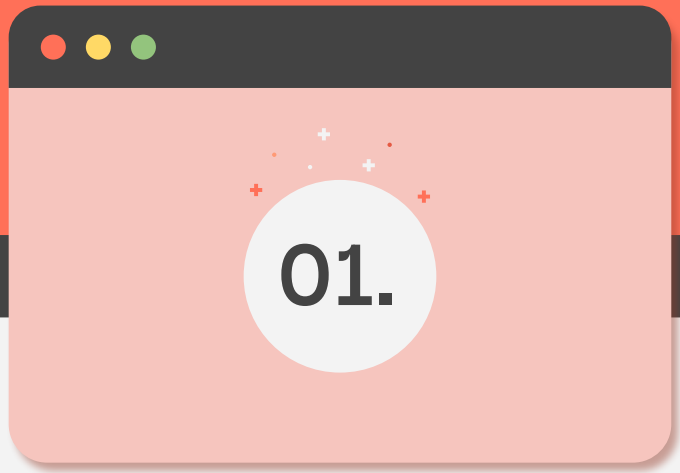
Arch linux

Pour les bidouilleurs

OpenSUSE

Ils ont fait des parodies marrants

À MiNET, on utilise debian



apt

(et autres package managers)

a. Permet d'installer et maintenir à jour des paquets (programmes)

b. Tout se fait en une commande

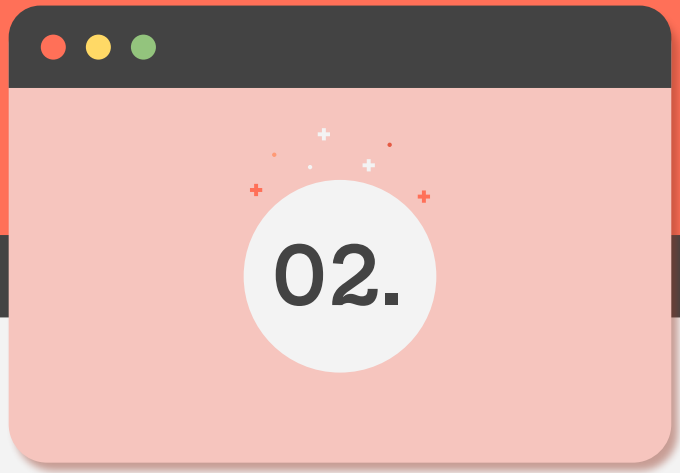
c. Base de donnée maintenue par la communauté, tout est OSS

apt

```
sudo apt update
sudo apt install …
sudo apt upgrade
sudo apt remove …
```

Mettez votre machine à jour

Illustration de vous



Les cron jobs

Automatisons tout ça

Automatise des tâches pour vous

Entièrement configurable

`sudo nano /etc/crontab`

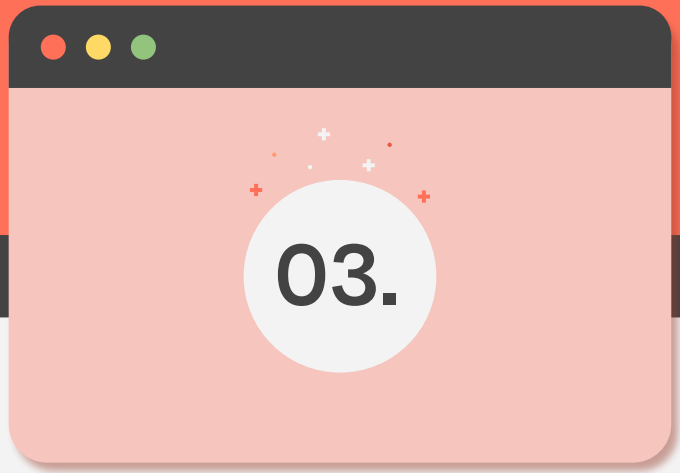
```
.---------------- minute
|  .------------- hour
|  |  .---------- day of month
|  |  |  .------- month
|  |  |  |  .---- day of week
|  |  |  |  |
*  *  *  *  *  user command
```

/etc/crontab

```
0 0 * * * root swapoff /dev/sda2; swapon /dev/sda2
```

/etc/crontab

```
59 23 * * 3 root apt update -q -y ; apt upgrade -q -y
```



Systemd

Là où tout commence

PID 1

Un *daemon* qui démarre les *daemons* et services

Orchestre tout le reste

```
         Starting Accounts Service...
         Starting Login Service...
[  OK  ] Started VDO volume services.
[  OK  ] Started Accounts Service.
[  OK  ] Started Virtual Machine and Container Registration Service.
[  OK  ] Started Login Service.
[  OK  ] Started firewalld - dynamic firewall daemon.
[  OK  ] Reached target Network (Pre).
         Starting Network Manager...
[  OK  ] Started Network Manager.
[  OK  ] Reached target Network.
         Starting Logout off all iSCSI sessions on shutdown...
         Starting Enable periodic update of entitlement certificates....
         Starting GSSAPI Proxy Daemon...
         Starting CUPS Scheduler...
         Starting OpenSSH server daemon...
[  OK  ] Started Hyper-V KVP daemon.
         Starting Dynamic System Tuning Daemon...
         Starting Network Manager Wait Online...
[  OK  ] Started Logout off all iSCSI sessions on shutdown.
[  OK  ] Started Enable periodic update of entitlement certificates..
[  OK  ] Started GSSAPI Proxy Daemon.
[  OK  ] Reached target NFS client services.
         Starting Hostname Service...
[  OK  ] Started OpenSSH server daemon.
[  OK  ] Started CUPS Scheduler.
[  OK  ] Started Hostname Service.
         Starting Network Manager Script Dispatcher Service...
```

Systemd

No brain

Fait partie de la suite **freedesktop.org**

Développement actif

Certains le trouve pas assez configurable

Activer / Désactiver

```
sudo systemctl enable/disable …
```

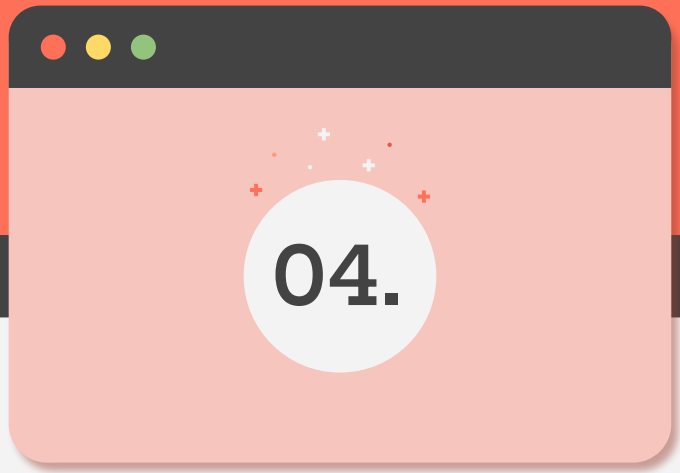
Redémarrer

```
sudo systemctl restart …
```

Lister (Asgard)

```
sudo systemctl list-unit --failed
```

Petit exemple
157.159.195.35



Sécurité

(pas) sponsorisé par Hackademint

Système de fichiers

```
C 1 arbre
```

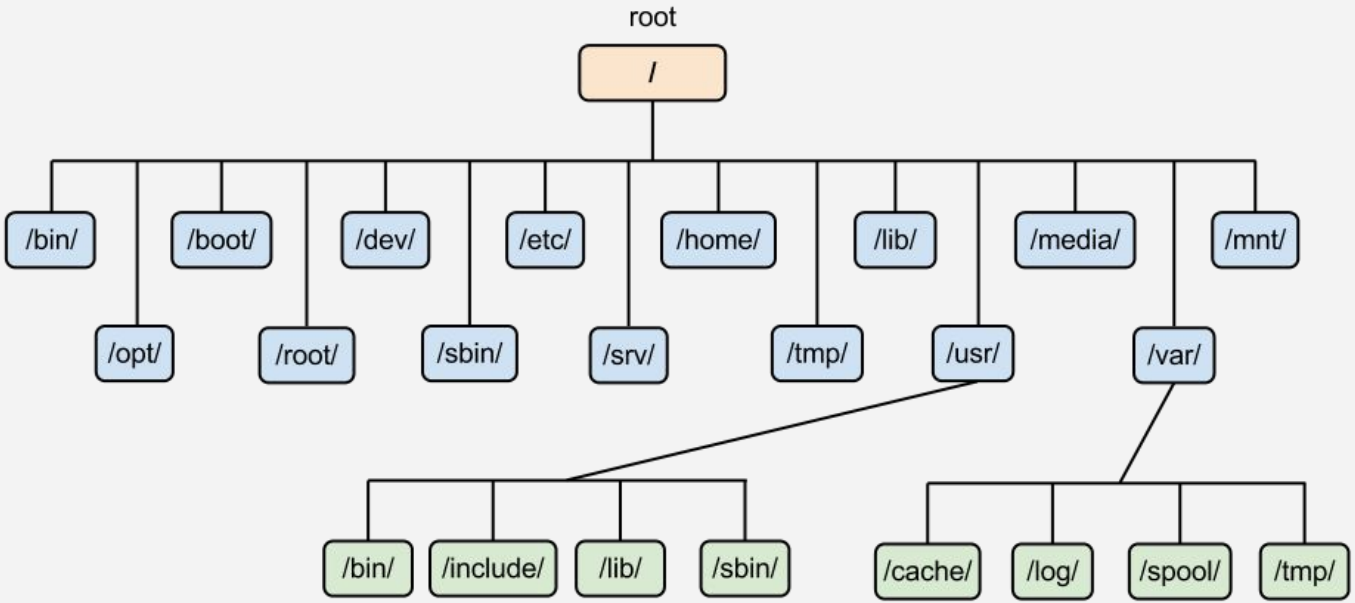
Utilisateurs

```
C D gens
```

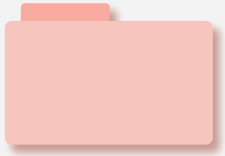
Permissions

```
C la police
```

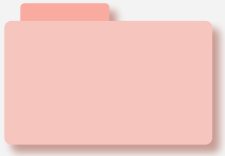
Le système de fichiers



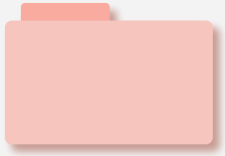
Dossiers utiles



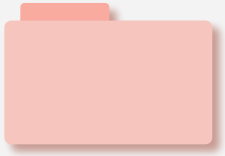
/



/bin



/var/log



$HOME

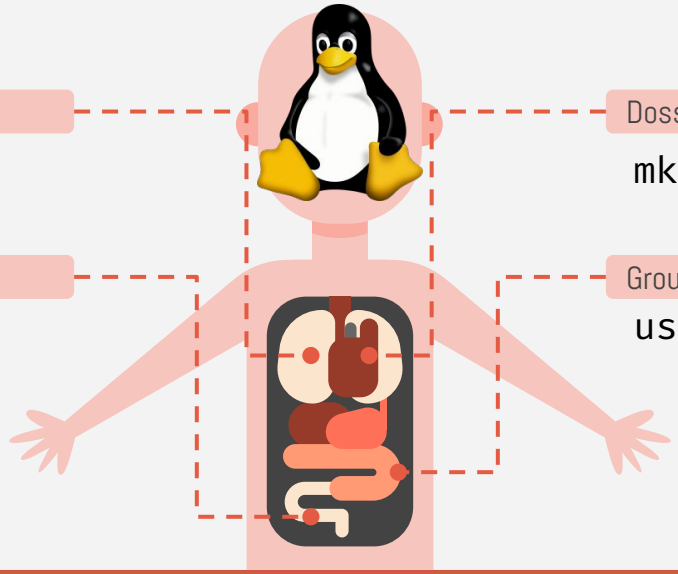
Utilisateur

a. Identifiant

```
useradd
```

b. Mot de passe

```
passwd
```

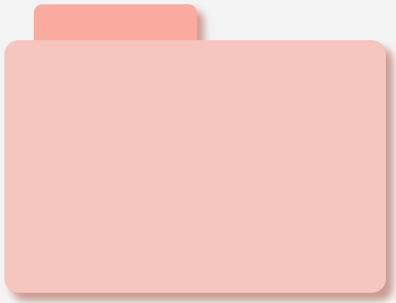


c. Dossier courant

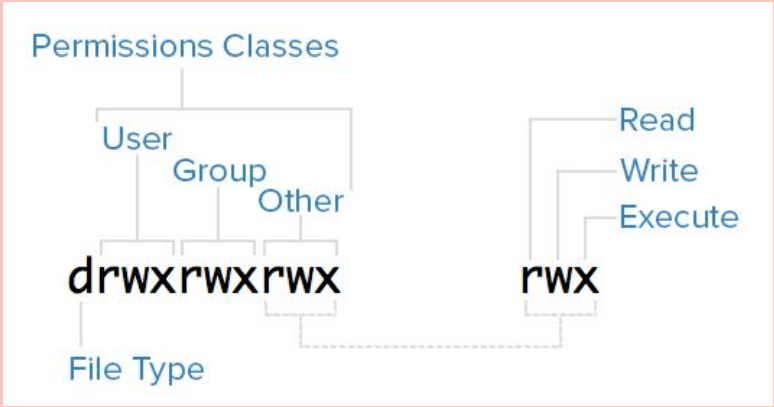
```
mkdir
```

d. Groupe

```
usermod -a -G
```



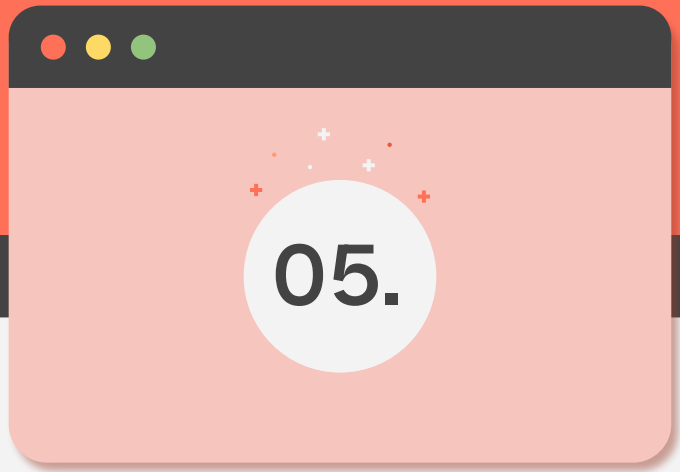
Permissions




```
chmod 777 fichier
chown usr fichier
```

Petit exemple

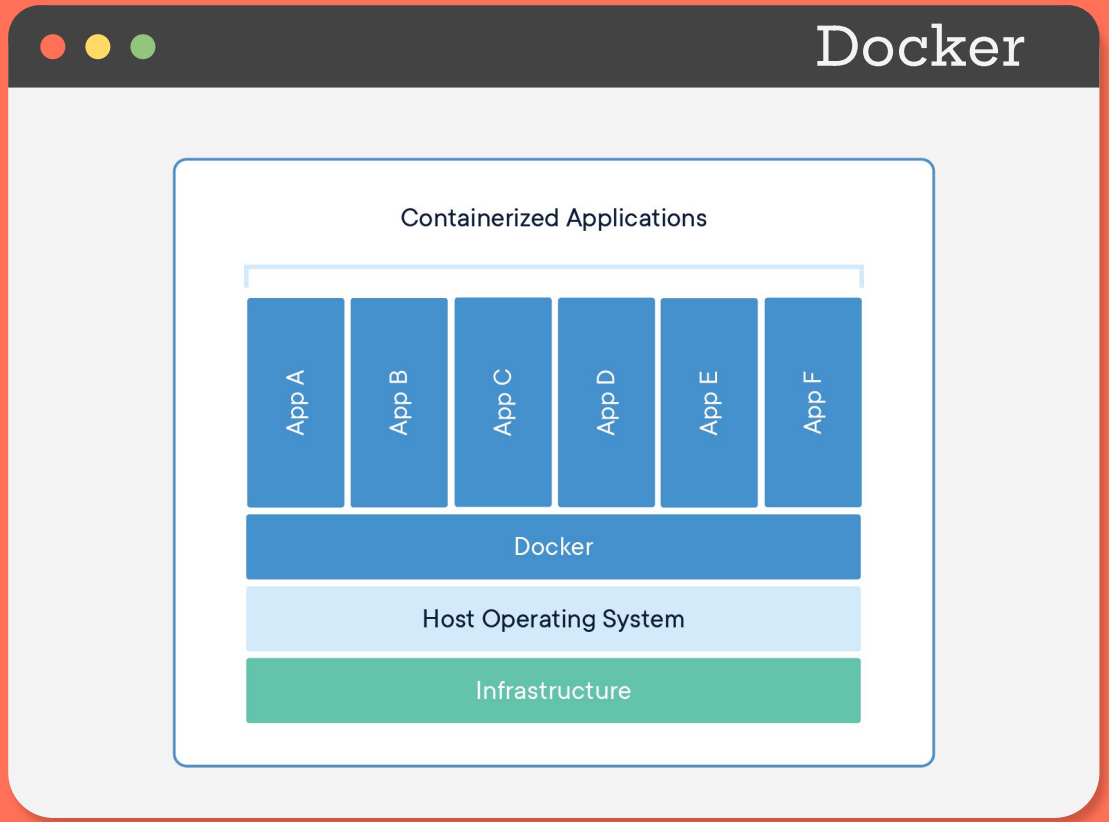
```
ssh formation@157.159.195.35
```

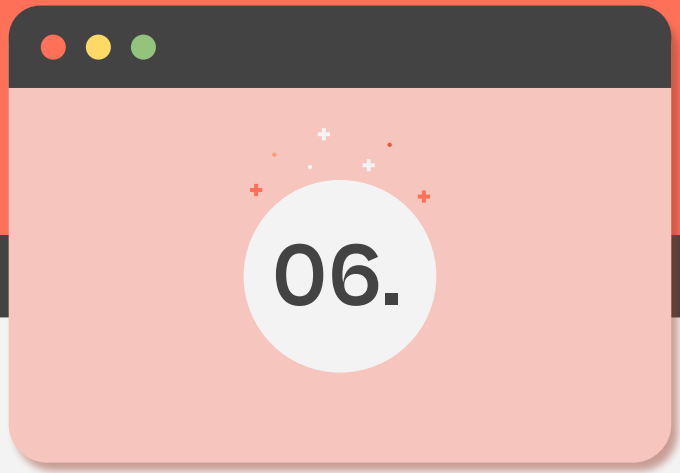


Docker

En despi

docker


Docker
Containerized Applications
App A
App B
App C
App D
App E
App F
Docker
Host Operating System
Infrastructure



La surprise du chef

Préparez vous

Liste de commandes utiles

- apt : Package manager de debian
- systemctl : Donner des instructions à systemd
- sudo : Donne des accès admin le temps d'une commande
- grep : Recherche dans l'output d'une commande
- less : Affiche le stdin dans un TUI
- nano : Éditer des fichiers depuis un terminal
- vim : Comme nano mais pour les chads
- journalctl : Affiche les logs de systemd
- ls -l : Affiche les permissions des fichiers

Bonus : Trouvez le flag

```
ssh formation@157.159.195.35
```

Blooket