CherryTree

shortcuts

[File Manipulation shortcuts]
ctrl+ . → To Emojies
ctrl + o → To open the previous file form the filesystem
ctrl + s → To save the file.
ctrl + shift + s → Save as.
ctrl + p → To print file.
ctrl + q → To quit the cherrytree.

[Node Related shortcuts]
ctrl + N → To add new Node.
ctrl + shift + D → To Duplicate the node.
F2 → To change the properties of the node.
F8 → To Insert Today's Node
ctrl + Alt+ R → Toggle the Node ReadOnly.
shift + ctrl + B → To add the bookmark in a Node.
shift + ctrl + E → To Expand the all the nodes.
shift + ctrl + L → To collapse all the Nodes.

[SubNode Related shortcuts]
ctrl + shift + N → To add SubNode.

latex

Installation On Fedora

$ sudo dnf install texlive-scheme-basic → Basic packges
$ sudo dnf install texlive-scheme-medium → medium packages
$ sudo dnf install texlive-scheme-full → full
$ sudo dnf install texlive-dvipng

Git

Git is developed by None other than Linus Torvald.
Git is a source code Version Control system.

About

git init

git config

git clone

git add

git commit

git remote

$ `git remote add origin <REMOTE_URL>` → `Sets the new remote`
$ git remote -v → `Verifies the new remote URL`

git pull

git push

Github public ssh Key

Generating a new SSH key:

```
$ ssh-keygen -t ed25519 -C "your_email@example.com"
```

Before adding a new SSH key to the ssh-agent to manage your keys, you should have checked for existing SSH keys and generated a new SSH key:

**Start the ssh-agent in the background

```
$ eval "$(ssh-agent -s)"
```

Adding your SSH key to the ssh-agent

```
$ ssh-add ~/.ssh/id_ed25519
```

Adding a new SSH key to your GitHub account

```
$ cat ~/.ssh/id_ed25519.pub
```

Testing your SSH connection

```
$ ssh -T git@github.com
```

Containers

Cgroups

About

Installation

Installing Cgroups tool:
$ sudo dnf install libcgroup libcgroup-tools

Types

cpuset

cpu

cpuacct

blkio

memory

devices

freezer

net_cls

perf_event

net_prio

hugetlb

pids

misc

Commands

lssubsys

$ lsusbsys -am → To list all the Cgroup Subsystem Available on the sysytem.

cgcreate

cgdelete

cgset

cgget

cgexec

cgclassify

systemd-cgls

systemd-top

namespaces

About

Types

cgroup_namespaces

ipc_namespaces

network_namespaces

mount_namespaces

pid_namespaces

time_namespaces

user_namespaces

uts_namespaces

Commands

unshare

unshare - run program in new namespaces

lsns

lsns - list namespaces

systemd-nspawn

systemd-nspawn - Spawn a command or OS in a light-weight container

nsenter

nsenter - run program in different namespaces

setns

setns - reassociate thread with a namespace

OverlayFS

In Computing , OverlayFS is a union filesystem impelemetation for Linux. It Combines multiple diffrent underlying mount points into one, resulting in single directory structure that contains underlying files and sub-directories form all sources.

Installation

Overlayfs is enabled in the default kernel and the `overlay` module is automatically loaded upon issuing a mount command.

mounting OverlayFS

To mount an overlay use the following `mount` options:
# mount -t overlay overlay -o lowerdir=*/lower*,upperdir=*/upper*,workdir=*/work /merged*

lxc

Docker

podman

kubernetes

VirtualMachine

VirtualBox

Installtion

**Check if Virtualization is enabled or not

```
$ cat /proc/cpuinfo | grep -E --color '(vmx|svm)'
or
$ grep -E --color '(vmx|svm)' /proc/cpuinfo
```

Additionally, check if the KVM kernel module is loaded using lsmod command,

```
$ lsmod | grep -i kvm
```

**Install Virtualization Packages

```
$ sudo dnf install -y qemu-kvm libvirt virt-install bridge-utils
```

```
$ sudo dnf -y install @development-tools → To install Virtualization group in fedora
$ dnf groupinfo virtualization
$ sudo dnf install @virtualization --> For Fedora , installing the Vitualization group packges
```

qemu-kvm – An opensource emulator and virtualization package that provides hardware emulation.

libvirt – A package that provides configuration files required to run the libvirt daemon.
virtinst – A set of command-line utilities for provisioning and modifying virtual machines.
Virt-install – A command-line tool for creating virtual machines from the command-line.
bridge-utils – A set of tools for creating and managing bridge devices.

Also, install virt-manager which is a Qt-based graphical interface for managing virtual machine via the libvirt daemon

```
$ sudo dnf install -y virt-manager
```

Aside from that, install additional virtualization modules.

```
$ sudo dnf install -y libvirt-devel virt-top libguestfs-tools guestfs-tools
```

Tools

vagrant

```
vagrant up --provider virtualbox → To  use the virtualbox provider
vagrant up --provider libvirt → To use the libvirt provider
vagrant up --provider docker → To use the docker provider
vagrant up --provider vmware → To use the vmware provider
vagrant init ubuntu/trusty64 → To generate Vagrantfile for ubunut/trusty64 image
```

```
vagrant box add ubuntu/trusty64
vagrant up
sudo dnf remove  VirtualBox-7.0.x86_64
sudo systemctl start/stop/status libvirtd
```

Ansible

KVM

Qemu

Linux

systemd

fedora

dnf

```
$ dnf group list
$ dnf group info virtualization
$ dnf -v group info virtualization
$ dnf group list --hidden
$ dnf group list --installed
$ sudo dnf install @virtualization
$ sudo dnf group install virtualization
$ sudo dnf group install --with-optional virtualization
$ sudo dnf group remove virtualization
```

General Commands

pidof

readlink

ionice

ionice - set or get process I/O scheduling class and priority

2022

December

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exp

dfghjkl

child_exp

$$f(x) = x^2$$

$$g(x) = \frac{1}{x}$$

$$F(x) = \int_b^a \frac{1}{3}x^3$$