# Multipass

Ubuntu VMs on demand

**Image** Ubuntu release → `launch` → **Running** instance → `stop` → **Stopped** snapshots here → `delete` → **Deleted** recoverable → `purge` → **Gone** disk freed

## CONCEPTS

Multipass runs Ubuntu VMs on your host. Launch, use and throw them away in seconds.

Deleted instances are only hidden until you purge them; recover brings them back.

The instance named primary is the default for shell, exec and stop when no name is given.

## CREATE AND INSPECT

`multipass launch [<image>] --name <name>`
Create and start an instance

`multipass launch --cpus <n> --memory <size> --disk <size>`
Set the VM resources

`multipass images`
List available images

`multipass list`
List instances and their IPs

`multipass info <name>`
Show details of an instance

`multipass list --format json`
Machine-readable list

## CREATE AND INSPECT (cont.)

`multipass info --all`
Details of every instance

`multipass launch --cloud-init <file>`
Configure at first boot

`multipass launch --mount <host-dir>:<vm-dir>`
Mount a folder at launch

`multipass launch --network <spec>`
Add a network interface

`multipass clone <name> --name <new>`
Copy a stopped instance

## ACCESS

`multipass shell [<name>]`
Open a shell in the instance

`multipass exec <name> -- <cmd>`
Run a command in the instance

`multipass exec <name> --working-directory <dir> -- <cmd>`
Run in a given directory

`multipass alias <name>:<cmd> [<alias>]`
Run a VM command from the host

## ACCESS (cont.)

`multipass aliases`
List defined aliases

## LIFECYCLE

`multipass stop <name>`
Stop an instance

`multipass start <name>`
Start a stopped instance

`multipass restart <name>`
Restart an instance

`multipass suspend <name>`
Suspend, keeping memory state

`multipass stop --all`
Stop every instance

`multipass delete <name>`
Delete (recoverable)

`multipass recover <name>`
Bring back a deleted instance

`multipass purge`
Permanently remove deleted instances

`multipass delete --purge <name>`
Delete and purge at once

## FILES

`multipass transfer <file> <name>:<path>`
Copy host file to instance

## FILES (cont.)

`multipass transfer <name>:<path> <dest>`
Copy instance file to host

`multipass transfer --recursive <src> <name>:<path>`
Copy a directory tree

`multipass mount <host-dir> <name>:<vm-dir>`
Share a host folder

`multipass unmount <name>[:<path>]`
Remove a mount

## SNAPSHOTS

`multipass snapshot <name> --name <snap>`
Snapshot a stopped instance

`multipass snapshots`
List snapshots

`multipass restore <name>.<snap>`
Roll back to a snapshot

## SETTINGS

`multipass get --keys`
List all setting keys

`multipass get <key>`
Read a setting

## SETTINGS (cont.)

`multipass set local.driver=<driver>`
Choose the hypervisor

`multipass set local.<name>.cpus=<n>`
Resize a stopped instance's CPUs

`multipass set local.<name>.memory=<size>`
Resize its memory

`multipass set local.<name>.disk=<size>`
Grow its disk

`multipass version`
Show client and daemon versions

`multipass help <command>`
Help for one command

## RECIPES

### Throwaway test box

```
multipass launch 24.04 --name scratch
multipass exec scratch -- sudo apt-get install -y <pkg>
multipass delete --purge scratch
```

### Share project, work inside

```
multipass launch --name dev --cpus 2 --memory 4G
multipass mount ~/<project> dev:/home/ubuntu/<project>
multipass shell dev
```